FINAL Plan

COMPREHENSIVE LAND USE AND DEVELOPMENT PLAN

BOSSIER BOSSIER PLAN

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Introduction

The Bossier Comprehensive Land Use and Development Master Plan is an official public document, adopted by the Bossier City-Parish Metropolitan Planning Commission, City of Bossier City Council and the Bossier Parish Police Jury. The Master Plan serves as a guide for policy decisions relating to the physical growth and economic development of Bossier City and the MPC Planning Area, which generally extends five miles beyond the corporate limits into Bossier Parish. In addition to providing a vision, goals and objectives to work toward the Year 2020, the Plan assesses the opportunities and challenges facing the region, identifies important policies and strategies, and establishes priorities for an aggressive implementation program that emphasizes specific actions and practical results.

> "Bossier's officials have repeatedly foreseen the future and worked for the improvements that forward striving people realize."
>
> *Clifton D. Cardin in "A Brief History of the City of Bossier City"*

The Bossier Plan updates previous plans and serves as a blueprint for future development. The Plan is designed to acquaint the reader with the City and Parish by documenting existing conditions and characteristics while identifying the area's goals, expectations, and priorities for the 21st Century as well as specific action plans for achieving these goals. The Plan addresses the physical aspects of planning such as land use and development; natural resources, recreation and open space; transportation facilities and improvements; utility infrastructure; housing and neighborhoods; and, community facilities. In addition, it addresses long-term policies that will guide shorter-term decisions regarding development review and approval, budgeting and fiscal management, and capital improvements programming. The Bossier Plan also sets the stage for more focused planning efforts, providing long-term perspective and highlighting how actions in one area, such as annexation, can have implications in other areas, such as land use, infrastructure, public facilities, or parks and recreation planning.

Comprehensive Planning Authority

In accordance with Part IV. Physical Development of Parishes and Municipalities of the Louisiana Revised Statutes, Section 33:1-6. General Powers and Duties, the Bossier Metropolitan Planning Commission is required to "make and adopt a master plan for the physical development of the municipality and unincorporated territory of the parish". Required of a master plan is the MPC's recommendations for the development of the MPC area including, among other things:

- the general location, character, and extent of railroads, highways, streets, waterways, parks and open spaces;
- the general character, extent and layout of public housing and of the replanning of blighted districts;
- the general location and extent of public utilities for water, light, sanitation, communication, transportation and other purposes; and,
- the removal, relocation, widening, narrowing, vacating, change of use or extension of grounds, open spaces, buildings, property and utilities.

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Area Profile
Vision & Goals
Market Assessment
Land Use
Parks & Open Space
Transportation
Utilities & Infrastructure
Housing
Image & Design
Facilities & Education
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Implementation

The Bossier City-Parish Metropolitan Planning Commission (MPC) is an organization established by Act 189 of 1954 of the Louisiana Legislature and authorized by the City of Bossier City and Bossier Parish to provide for comprehensive planning and orderly development in the City of Bossier City and the unincorporated part of Bossier Parish lying within five miles of the City. The MPC's mission in providing zoning, planning and development services within its boundaries is to: 1) protect the rights of residents and businesses choosing to locate in Bossier; 2) ensure public safety, health and welfare; 3) establish standards which are clearly communicated and consistently enforced; 4) preserve and enhance property values; 5) provide a positive climate for growth; 6) enhance the quality of life of area residents; 7) provide a public forum for thorough examination of development-related impacts; and, 8) serve as a catalyst for broad-based community, business and public sector involvement in the planning process.

Why Should Bossier Plan?

When a region such as Bossier engages in long-range planning, it is logically based on a decision to exact control over its destiny rather than simply reacting to change. It is a deliberate stance taken to proactively manage future growth and development as opposed to reacting to development proposals on a case-by-case basis without adequate and necessary consideration of community wide issues. It has been since 1956 that Bossier has adopted a Master Plan, which emphasizes the importance of this Plan as a blueprint for the region's future growth and development.

Planning is the process of identifying issues and needs, establishing goals and objectives, and determining the most effective means by which these ends may be achieved. With its bias toward action and meaningful results, planning sets the stage for intelligent and coordinated actions versus complacency and inaction in the face of challenges and opportunities. The essence of planning is captured in the familiar phrase, "Look before you leap."

As part of the plan development process, a series of focus group interviews were conducted to solicit the input of local residents concerning common perceptions, issues, problems, opportunities, constraints, assets and challenges of the City and Parish. This input was invaluable toward understanding the underlying issues and needs of the region and specifically the values and priorities of those who know best – citizens, advisory board/commission members, neighborhood and civic organizations, community service organizations, business and industry leaders, major landowners and developers, and other community leaders. There were several reasons identified by these persons as to why Bossier should plan, including:

- To maintain a **"hometown atmosphere", quality schools, low rate of crime, and family-oriented facilities and activities** each of which contribute to the acclaimed excellent quality of life;
- To seize the economic development opportunities brought about by the riverboat casinos and to **re-establish downtown and the riverfront as a pedestrian-oriented community focal point**;
- To **ensure adequate community facilities and services, including utility infrastructure; fire, police and emergency medical services; and parks and open space,** necessary to support continued growth and development of the region;
- To **preserve significant cultural and historical assets** and to conserve precious environmental resources;
- To **make "smart" decisions relating to a well-managed and fiscally sound pattern of urban development;** and,
- To reach **consensus on behalf of private and public interests** as to the future vision of Bossier and the proactive steps necessary to achieve success.

In addition to the reasons identified above, the Bossier Plan is important to:

- Maximize community strengths and minimize weaknesses;
- Protect property rights and enhance property values;
- Balance economic growth with quality-of-life issues; and,
- Avoid unmanageable concentrations or dispersal of population.

The process required to develop the Bossier Plan may be more valuable to the community than the Plan itself, since the Plan is ultimately only a snapshot in time. The planning process involves major community decisions about how much and where growth will occur, the nature of future growth, and whether the community can afford to

provide the necessary public services and facilities to support this growth. This leads to pivotal discussions about what is "best" for the community and how everything from taxes to "quality of life" will be affected.

This planning process has drawn the attention of the Bossier City-Parish Metropolitan Planning Commission, the Bossier City Council, the Bossier Parish Police Jury, and citizens to the major development constraints and opportunities - whether they be physical, environmental, social, or economic. The Bossier Plan provides an opportunity for the elected and appointed officials to step back from the pressing, day-to-day issues and to clarify their ideas on the kind of community they are trying to create. The plan development process provides a chance to look broadly at programs for neighborhoods, housing, economic development, provision of public infrastructure and services, environmental protection, and natural and manmade hazards and how these concerns may relate to one another. The Bossier Plan represents a "big picture" of the City and Parish, one that can be related to the trends and interests of the broader region as well as the State of Louisiana.

Local planning is often the most direct and efficient way to involve members of the general public in describing the community they want. The process of plan preparation provides a rare opportunity for two-way communication between citizens and local government officials as to their vision of the community and the details of how that vision is to be achieved. The Plan will result in a series of goals and policies that, ideally, will guide the MPC, City Council and Police Jury in administering development regulations; in the location, financing, and sequencing of public improvements; and, in guiding reinvestment and redevelopment efforts. The Plan also provides a means of coordinating the actions of many different departments and divisions within the City and Parish.

Intended Use of the Bossier Plan

The Bossier Plan belongs to the community and its citizens who generously offered their time and talents to create it. The ability to implement the Plan is directly correlated to the amount of citizen participation and the sense of ownership derived from the process. The Plan contains many components and serves numerous functions such as providing information, identifying existing conditions and characteristics, and establishing local governmental policies and strategies. It is a definitive source of information regarding the existing and future conditions and characteristics of the community. By its nature, the Plan is intended to serve all interests of the community and thus offers the following benefits:

- It **states the intentions of the governing bodies** regarding the area's physical development and infrastructure investment, which creates a level of certainty for landowners and developers;
- It **establishes local policy and provides guidance** toward future growth and development, which may be utilized by the MPC, Police Jury and City Council in their decision-making;
- It **identifies programs and initiatives in the form of specific statements of action**, which may form a coordinated work program for the departments of the City and Parish;
- It **identifies capital improvement needs and priorities**, which may be utilized by City-Parish management in annual budgeting and capital programming;
- It **indicates the type, scale and density of future development and coordinates transportation and infrastructure improvements,** which notifies the citizens of the pattern of development and its influence on private property; and,
- It **serves as the blueprint for the area's future economic and physical development**, which is useful to other local, State and Federal agencies engaged in the provision of programs, services and facilities.

Development of the Bossier Plan

Citizen involvement is the cornerstone of the Bossier Plan. A successful plan is identified not just with the elected and appointed officials of the City and Parish who adopt it, but with the entire region and its residents who helped draft it and want to see it followed and maintained. Effective mechanisms for citizen involvement and debate are an essential part of the Bossier planning process. Through this community involvement, the Plan incorporates the community's values in terms of quality of life, character and scale of development, urban form, aesthetic appeal, and how new development should be integrated with the existing and future urban and rural fabric. Citizen participation in the planning study includes a variety of

activities for community involvement and public information, including:

- The **Bossier City-Parish Metropolitan Planning Commission**, **Bossier City Council**, and **Bossier Parish Police Jury** are involved as major participants in the plan development process through their ongoing representation on the **Master Plan Advisory Committee** as well as through three joint meetings with the Advisory Committee at key milestones in the process.
- A 42 member **Master Plan Advisory Committee** provided insight and review into the plan development process by identifying the community's strengths and weaknesses, reviewing each plan element and providing input and suggestions into the planning process to ensure the Plan reflects the values and the vision for the future.
- **Focus Group Interviews** were conducted with small groups of elected and appointed officials, advisory board/commission members, and other key community figures, neighborhood and civic organizations, community service organizations, business and industry leaders, major landowners and developers, and other community leaders. The purpose of these small group interviews was to solicit the input of local residents concerning common perceptions, issues, problems, opportunities, constraints, assets and challenges in the City and Parish. This input was invaluable toward understanding the underlying issues and needs of the region and specifically the values and priorities of those who know best – citizens.
- ***Community Meetings*** were conducted across the Bossier Planning Area. Nine meetings were held to bring the planning process to the residents and business owners in close proximity, encouraging their input in identifying issues, needs and priorities and formulating a vision for the entire Bossier area.
- ***Downtown and Riverfront Development Districts Business Development Workshop*** - A business development workshop was conducted in coordination with the interviews for the development ordinance diagnosis to review the current ordinance provisions for the Downtown and Riverfront districts, including the district boundaries, permitted uses, and height and area requirements. A desirability survey was conducted to identify the desired visual elements and aesthetic characteristics of the districts, which was utilized in preparing the development standards and design guidelines. Participants in the group included Downtown and Riverfront business and property owners, elected and appointed government officials, developers and real estate investors, and other key stakeholders in the Downtown and Riverfront areas.
- ***Open House*** – An Open House was conducted at the draft plan stage to share with the City and Parish the planning results and recommended plan prior to formal public hearings and official consideration. The open house involved a large number of citizens to provide an opportunity for the community to review and comment on the final draft Comprehensive Land Use and Development Master Plan.
- **Project Web Site** – A project Web site included an introduction and overview of the project, overview of the plan development process, project schedule with links to meeting agendas and summaries, information on public meetings and other public involvement activities including announcements for the community meetings and the open house, information on the consultant team, points of contact for questions and comments, links to other area Web sites, draft plan elements and maps with plan alternatives under consideration, questionnaire, photo album of the City and Parish, and an opportunity to be added to a mailing list.
- **Public Hearings** - The final stage of the citizen participation process included formal Public Hearings prior to consideration of the recommended Comprehensive Master Plan by the Metropolitan Planning Commission, Bossier City Council, and Bossier Parish Police Jury.

Bossier Plan: A Continuous Planning Process

The Bossier Plan is a principal part of the overall, ongoing planning process of the City and Parish. The Plan will serve as the basis for decisions pertaining to the development of the area, including the necessary guidance for the development ordinances, which are the tools to implement the Plan. The first Zoning Ordinance for Bossier was established in 1958, based upon the Master Plan for the planning limits last adopted in 1956. The MPC is currently operating under Zoning Ordinance No. 33 of

1978 in the City of Bossier City and No. 783 of 1978 in Bossier Parish. The subdivision regulations for the planning limits were last adopted in 1975. Approval of the Plan by the MPC, City Council and Police Jury establishes the vision and direction of the community and represents an important first step toward achieving Bossier's desired goals.

The Bossier Plan should not be considered a static document but rather the result of a continuous process to gather and evaluate information and make informed decisions based upon constantly changing conditions. The Plan is intended to be reviewed on a regular basis and updated as needed to maintain its applicability to current conditions and priorities of the City and Parish. At a minimum, the entire Plan should be revisited every five years and revised as needed to ensure that it still reflects the true values and direction of the community. However, while the Plan must be flexible to respond to changing needs, the community should remain steadfast in its vision and support for the core goals and objectives contained in the Plan.

Essential Aspects of a Comprehensive Plan

The Bossier Plan is a definitive source of information regarding the existing and future conditions and characteristics of the MPC Planning Area. A thorough understanding of the community's past, present and future is needed to identify key issues and trends and formulate realistic goals, viable objectives, workable policies, and effective action plans. Ultimately the Plan provides a solid foundation for making informed, sound and fiscally responsible decisions regarding the community's future growth and development and the adequate provision of priority public facilities and services.

The Bossier Plan is "comprehensive" in two ways: (1) geographically, since it considers the entire city limits and five miles beyond the city into the Parish, and (2) by the variety of issues and elements that are evaluated simultaneously to determine the best future course. For these same reasons, the Plan is general since it cannot provide definitive answers in so many individual situations and with circumstances sure to change over time. Instead, the Plan provides a policy framework to guide numerous public and private decisions.

Some elements of the Plan are especially long-term and will become permanent factors in the ongoing development of the City and Parish, such as where roads and infrastructure will be extended, where various types of development will occur, and where property will be set-aside in perpetuity as public lands.

The Bossier Plan is optimistic and even inspirational - enough to challenge the community about its future. But it also provides clear direction through statements of action that indicate how to achieve the community's desired vision. The sign of an effective plan is when it is frequently cited at MPC, City Council and Police Jury meetings and regularly consulted in the business and development communities. Bossier officials should expect and ensure that their Master Plan is the "road map" for City and Parish government in the years ahead, providing practical guidance for every municipal and parish function.

Finally, the Bossier Land Use and Development Master Plan should not be confused with zoning. The Plan is a general guide for the long-range growth and development of the MPC limits. Zoning is a legal mechanism "for the purpose of promoting health, safety, morals or the general welfare of the community" enacted by the MPC whereby the area may be divided into any number of districts, of any shape and size appropriate, so as to "regulate and restrict the erection, construction, alteration, or use of buildings, structures or land." Furthermore, zoning in Louisiana is regarded as a Police Power and as according to L.R.S.

33:4723, "shall be made in accordance with a comprehensive plan and designed to lessen congestion in the public streets, secure safety from fire, promote health and the general welfare, provide adequate light and air, avoid undue concentration of population, and facilitate adequate transportation, water supply, sewerage, schools, parks, and other public requirements. The regulations shall be made with reasonable consideration of the character of the district and its peculiar suitability for particular uses, and with a view to conserving the values of buildings and encouraging the most appropriate use of land throughout the community.

The Bossier Master Plan provides the vision, goals, objectives, policies and actions necessary to achieve the desired urban form of the City and Parish over the long term. Zoning is a tool used to influence and direct development on individual properties on a much shorter-term basis so that, taken together, these developments will result in the type of community that Bossier desires.

Organization of the Bossier Plan

The Bossier Plan is organized into thirteen (13) individual plan elements, which address the existing conditions, issues, goals, objectives, and action plans for various facets of the community. These elements include:

- **Chapter One: Introduction** – Outlines the purposes of comprehensive planning and background on the plan development process and associated citizen involvement activities.
- **Chapter Two: Community Profile** – Documents the existing socioeconomic conditions and characteristics of the City and Parish as well as the projected growth of the area. It includes data relating to historical, current and forecasted population and employment and local socioeconomic and demographic characteristics and trends.
- **Chapter Three: Vision and Goals** - Expresses the shared vision of what the citizens want Bossier to be now and in the future. The vision statement is intended to provide a clear and concise summary of citizens' expectations for future development, economic opportunity, mobility, public facilities and services, recreational enjoyment, natural beauty, and other aspects of community life.
- **Chapter Four: Market Assessment** - Highlights pertinent market and economic conditions, key product characteristics, program options, the mix of uses that are feasible and those that will enhance the character of Bossier, and factors related to basic development economics.
- **Chapter Five: Land Use** - Illustrates the generalized pattern of future land use, including various types and densities of development.
- **Chapter Six: Natural Resources, Recreation and Open Space** - Provides detailed guidance for the future development of Bossier's parks and recreation system and for complementary land acquisition and conservation strategies.
- **Chapter Seven: Transportation** - Delineates the functional classes of existing and proposed major thoroughfares and identifies the thoroughfare system improvement needs.
- **Chapter Eight: Utilities and Infrastructure** - Recommends changes in policies and procedures; opportunities for cost sharing; location and characteristics of existing facilities plus preliminary recommendations (for budget and route planning) for items to be included in a short-term Capital Improvement Program (CIP).
- **Chapter Nine: Housing** - Summarizes issues and findings related to housing availability and affordability. Identifies specific ways the City and Parish can promote needed housing development and redevelopment and ensure viable and sustainable neighborhood environments.
- **Chapter Ten: Community Image and Design** - Describes the values and documented preferences driving image decisions, graphically illustrates recommended design elements, and identifies implementation strategies for acquisition and installation.

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12. Policies and Strategies
13. Implementation

- **Chapter Eleven: Facilities and Education** – Summarizes public facility information and describes and graphically illustrates potential improvements, general locations, and implementation recommendations.
- **Chapter Twelve: Development Policies, Strategies and Incentives** – Documents issues and concerns with the urban form and the character and appearance of the Bossier area at its current stage of development, highlights the values and expectations of Bossier residents, and recommends methods for evaluating and improving the compatibility and attractiveness of future development within the context of an effective growth management framework.
- **Chapter Thirteen: Implementation** - Includes specific actions that are linked to the goals and objectives of each of the plan elements; the timeframe for implementation; and the agency/entity responsible for implementation, such as the MPC, City, Parish or other public agencies and/or entities.

Area Profile

Bossier City and Bossier Parish comprise a dynamic, growing area with a proud past and a future filled with the promise of continued growth. It is a land of opportunity that has evolved from its agrarian roots into a destination for tourism and entertainment. It is also an area that continues to be defined by a major physical feature of the Parish – the Red River – and the major cultural features – Barksdale Air Force Base, and now the riverboat casinos.

These and other traits forge the foundation of the physical, social and economic character of Bossier City and Bossier Parish. They make the City and Parish unique. Understanding this allows area residents and leaders to better envision the strengths and weaknesses of the community, as well as the steps necessary to seek out and achieve the goals and vision for tomorrow.

Creation of the Comprehensive Land Use and Development Master Plan establishes the link between the past, present, and a well-planned future. The Area Profile is the first step toward this linkage and the benchmark against which people may understand how Bossier is changing and gauge its success.

Key Area Trends and Planning Factors

The following key points are highlighted from within this Area Profile chapter:

- The Bossier area is centrally located among major southwestern cities and is an important transportation hub.
- Water is a defining characteristic of the area, a source of recreation and basic life support, and also a periodic public safety risk in the form of flooding.
- Since 1933, Bossier City has been known as the home of Barksdale Air Force Base, one of the largest military installations in the nation and by far the most significant employment generator in the area. The direct impact of Barksdale Air Force Base on the local economy is estimated to be in excess of $430 million. The base accounts for 22,000 acres within the Bossier City-Parish Metropolitan Planning Commission (MPC) Planning Area.
- Bossier City and Parish have continued to gain in population in recent decades, with both growing at a faster pace than statewide rates for Louisiana. The City added nearly 15,000 residents between 1970 and 2000, and the Parish grew by nearly 34,000 persons.
- As of the 2000 U.S. Census, Bossier City had 56,461 residents, all of Bossier Parish had 98,310 residents, and the MPC Planning Area had an estimated population of 74,836, representing 76 percent of the Parish-wide total.
- Even with annexation activity by the City in recent decades, unincorporated portions of Bossier Parish continue to show higher rates of population growth than the incorporated city. The most significant residential development has occurred beyond the city limits in the MPC Planning Area.
- The area's growth, while consistently positive, can vary widely in line with regional and state economic fortunes, such as the booming economy of the 1970s versus the bust era of the 1980s and the recovery of the late 1990s.

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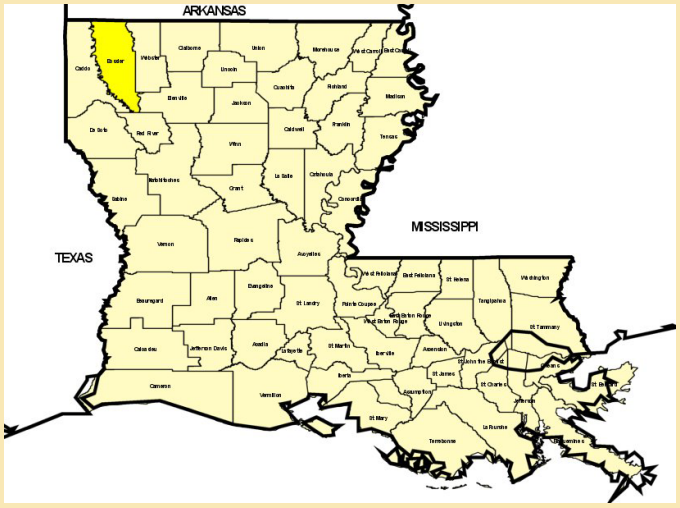
Market Assessment
Land Use
Parks & Open Space
Transportation
Utilities & Infrastructure
Housing
Image & Design
Facilities & Education
Policies & Strategies
Implementation

- The median age within Bossier City dropped slightly from 32.7 to 32.1 years during the 1990s while the median age in all of Bossier Parish jumped from 30.6 to 33.8 years.
- While the number of persons in retirement age is increasing in both the City and Parish (reflecting the nationwide "graying" of the "baby boomer" generation), the percentage of persons age 65 and older remains lower than at the statewide level.
- As of the 2000 Census, Whites accounted for just over three quarters of the population in both the City and Parish. The Black population was nearly 20 percent in both cases, and other racial categories represented a very small percentage of the population. The White population declined slightly in the City over the last decade while much of the City's overall growth was in the Black community.
- While income data from the 2000 Census are not yet available, earlier data indicate that both Bossier City and Parish are more solidly middle-income areas than Louisiana as a whole, with lower percentages of the population earning either "low" (below $17,500) or "high" (above $75,000) incomes.
- The area economy has become more diversified with strong components in the military, gaming, healthcare, service, and tourism sectors as well as continuing activity in agriculture and mining (oil and gas). The advent of gaming boats and hotels in the 1990s helped to lift the area out of a deep recession and remains a significant source of jobs.
- Regional employment has been stable in recent years, with a current Bossier Parish unemployment rate in the four to five percent range. Bossier Parish had a 1999 civilian labor force of 36,009 people, of which 7.4 percent were employed in manufacturing while the vast majority were engaged in service jobs.
- Bossier City and portions of Bossier Parish supply large numbers of workers in Caddo Parish, particularly in Shreveport.
- Shreveport-Bossier City is the largest gaming market in the state of Louisiana. The gaming sector on both sides of the Red River now employs more workers than Barksdale Air Force Base.
- Bossier has a stable, expanding housing market, with owner-occupancy rates in the 60-70 percent range and vacancy rates below 10 percent.
- Housing indicators suggest a strong family-oriented community, with more than 70 percent of residences having family households. Average household size in Bossier City is 2.58 persons and slightly higher in the Parish at 2.63. In both the City and Parish, 20 percent of households have a member 65 years or older.
- The City and Parish have experienced substantial new home construction in recent years. However, a concern is the limited development of lower-cost housing.
- In anticipation of continued strong population growth in the coming decades, the Bossier Master Plan will be based on population projections for the MPC Planning Area of 85,000 persons in 2010 and 96,000 persons in 2020. This is a projected growth rate of approximately 13 percent in each of the next two decades and suggests the addition of roughly 10,000 new people from 2000 to 2010 and then 11,000 more through 2020.
- Bossier Parish has a complex and extensive flood plain that must be factored into nearly all development and infrastructure investment decisions. Areas experiencing the most rapid growth are within flood-prone areas, particularly the large flood zone to the north of Barksdale Air Force Base toward Benton, which only exacerbates drainage problems.
- Known and potential archaeological sites across the Bossier area, and particularly in "Old Bossier" and near the Red River, can delay land development activities, pose potential environmental concerns from historical substances, and often require pre-development site evaluations.
- Barksdale Air Force Base clearly impacts the pattern of development in Bossier through noise impacts and flight path protection. At the same time, urban encroachment and land use conflicts could eventually undermine the long-term viability of Barksdale for its appointed function. The future I-69 corridor and associated development could add to this dilemma for Bossier.

Location

Bossier City and Bossier Parish are located in northwestern Louisiana, approximately 20 miles east of Texas and 35 miles south of Arkansas, as indicated in **Figure 2.1, Bossier Parish in Louisiana**. Bossier City covers approximately 38 square miles while Bossier Parish contains 838 square miles. By ground travel, Bossier City is centrally located among major southwestern cities, just three hours from Dallas, Texas, three hours from Jackson, Mississippi, six hours from New Orleans, five hours from Houston, Texas, three hours from Little Rock, Arkansas, and seven hours from Memphis, Tennessee.

Figure 2.1
Bossier Parish in Louisiana



Bossier City and Bossier Parish are located in Northwest Louisiana. Bossier Parish borders Arkansas and is within 20 miles of Texas.

Source: Precision Cartographics

Bossier City is located on the eastern bank of the Red River, across from Shreveport, the largest city in the region. Together, the two cities form a major transportation hub, serviced by U.S. Interstates I-20, I-220, and I-49, and U.S. Highways 71, 79, and 80. Future highway construction plans call for U.S. I-69 to be routed near Bossier City. U.S. I-20, which runs through the heart of Bossier City, is one of the premier east-west transportation corridors in the United States.

Geographically, Bossier City is well positioned on or near these major transportation corridors. The I-20 and I-49 interstates are heavily traveled commercial traffic corridors providing access to the east, west, and south. Another major interstate highway, I-30, lies 60 miles to the north at Hope, Arkansas, and is accessed by Louisiana State Highway 3. This interstate gives Bossier City access to Memphis, Tennessee and other cities to the northeast.

This transportation infrastructure is of great importance to the future growth of Bossier City and Bossier Parish. The Red River, now navigable to the Port of Shreveport-Bossier, offers the promise of new business ventures in manufacturing and warehousing. Bossier's central location offers the possibility of a wide range of new businesses including warehousing, material distribution centers, corporate regional headquarters, and major retail corporations. Other businesses invariably are created to support large employers and these provide an even greater growth potential. Successful measured growth in Bossier City and Bossier Parish can, in part, be obtained by the acquisition of such businesses.

The planning area of the Bossier City-Parish Metropolitan Planning Commission (MPC) is displayed in **Figure 2.2**.

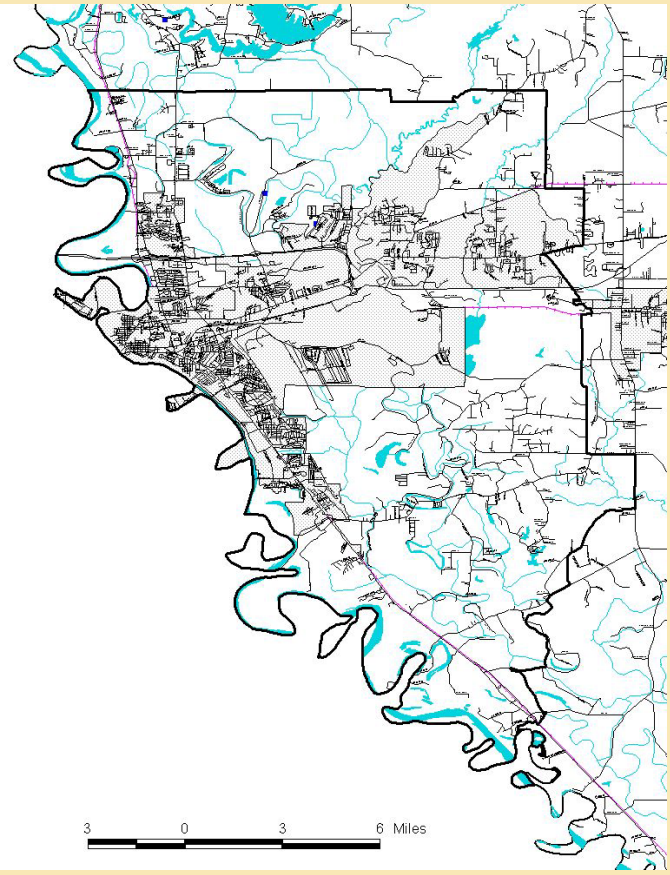
The Role of Water in Bossier's Development

From the outset, Bossier City and Bossier Parish have shared a strong relationship with the Red River and its surrounding aqua system. The river is a physical edge that defines Bossier City. It is also the source of water for area residents. Lakes scattered throughout the Parish provide recreation and conservation opportunities, while also providing an aesthetic location for housing and other development.

Flooding is also a major issue involving area waterways. A significant portion of Bossier City and Bossier Parish lie within the flood plain of the Red River Valley, including many present and future growth areas. This issue will be further discussed in Chapter 8, Utilities and Infrastructure.

Long before Europeans first settled the region, the river formed a giant logjam called the Red River Raft. At one point in time, this obstacle was over 400 miles in length. The U.S. Army Corps of Engineers began destroying the raft in the 1820s under the capable leadership of Henry Miller Shreve. It was finally destroyed in the 1870s. The logjam blocking the flow of water created several parallel "raft channels" on both sides of the river. These include Willow Chute, Red Chute, Flat River, Mack's Bayou, Loggy Bayou, Black Bayou, Cypress Bayou, Bayou Bodcau, and Dorcheat Bayou, all on the Bossier side of the river. The

Figure 2.2
Bossier City-Parish Metropolitan Planning Commission (MPC) Planning Area



NOTE: Actual MPC Planning Area boundary not shown; boundary has been generalized for planning purposes.

Source: Precision Cartographics

pooling of water by these streams into low areas created most of the lakes in today's valley. In Bossier Parish, these include Lake Bistineau, Cypress Bayou Reservoir, Black Bayou Reservoir, and Bodcau Lake.

Today, these bodies of water provide recreational activities including fishing and hunting, hiking, and water skiing in some areas. Bodcau Wildlife Management Area in northern Bossier Parish and Loggy Bayou Wildlife Management Area south of Lake Bistineau are both managed by the State of Louisiana. The Cypress/Black Bayou Recreation Area is located in central Bossier Parish near the town of Benton and is operated by the Cypress Black Bayou Recreation and Water Conservation District. Cypress/Black Bayou is one of the premier regional locations for camping, boating, fishing, picnicking, and swimming. The recreation area also contains a nature center and a petting zoo.

A network of streams and lakes provide prime locations for waterfront residential development, particularly on Cypress/Black Bayou. New residential developments between Benton and Bossier City have primarily been located within the floodplain of these streams. This has resulted in development of sensitive areas that were previously utilized as flat agricultural land, but now exist as urban living spaces. While these areas are accessible to amenities in Bossier City, they disturb the existing ecosystem and potentially disrupt the existing flood pattern.

Additionally, such development places a significant strain on a road system that was built early in the 20th Century to connect farms and rural communities. Benton Road, the westernmost north-south corridor between the Town of Benton and Bossier City, has been recently upgraded to four lanes for the segment between the two municipalities. Airline Drive and its northern extension, Palmetto Drive, also connect Bossier City to Benton. Although plans exist for the expansion of the roadway to five lanes between the two towns, this has not occurred north of Bossier City. The rapid increase in residential areas north of Bossier City places severe strain on Airline Drive.

The Influence of Barksdale Air Force Base

Bossier City is well known as the home of Barksdale Air Force Base, the headquarters of the U.S. 8th Air Force and the 2nd Bomb Wing. Barksdale AFB is one of only two locations permanently deploying B-52 bombers, with the majority being located in Bossier City. The base has three operational B-52 squadrons, with one being the only Air Force Reserve squadron flying and training crews in the venerable heavy bomber. Barksdale is also the home of the 917th Wing flying A-10 Thunderbolt II fighters. The 2nd Bomb Wing's motto is Libertatem Defendimus, "Defend Liberty."

The base was dedicated on February 2, 1933 and has been a centerpiece for the region's pride and economic prowess from the beginning. Barksdale is one of the largest military bases in the country, containing 22,000 acres. Of these, 20,000 acres are used for recreation and as a game preserve. The East Reservation, as the non-operational area was known as a gunnery and bombing

range before and during World War II. Today, it is a laboratory for wildlife and wetlands conservation.

The base has been the home of several high profile squadrons and a variety of aircraft. During World War II, General Jimmy Doolittle's Tokyo Raiders trained at the base. Chinese and French bomber crews trained there, as well. Anti-submarine missions in the Gulf of Mexico were launched from the base using B-24 heavy bombers.

The busy main entrance to Barksdale Air Force Base at Barksdale Boulevard and West Gate Drive. Barksdale is one of the largest military bases in the United States and a significant anchor of the Bossier economy.

Later, the base converted to training bomber crews in B-26, B-17, and B-29 aircraft. By 1949, the base was home to the first all jet strategic reconnaissance and bomber aircraft, the RB-25 Tornado, and shortly afterwards, Barksdale became the home of the 2nd Air Force. As part of the Strategic Air Command, Barksdale was on the front lines of the Cold War, flying B-47 bombers and KC-97 tankers. Since 1958, Barksdale has been the home of the B-52 Stratofortress. Today, the base is the home of the 8th Air Force, the unit responsible for air defense and strategic bombing capabilities in the Eastern United States and Europe.

The base is the largest employer in the region and has an enormous impact on its economy. Barksdale's military, dependent, and civilian populations currently consist of 16,055 people in all age brackets. This does not include retirees and their dependents.

Military personnel and their families live both on- and off-base, providing a large segment of the housing market. Payroll for fiscal year 2000 was $36,645,549 for on-base housing and $162,936,671 for personnel living off base. Civilians in both appropriated and non-appropriated payrolls added another $59,384,614 to the local economy.

Off-base housing accounts for a majority of payroll and this creates both opportunities for additional housing in the Bossier City and Bossier Parish housing market and pressure on the existing market. At the present time, 81.6 percent of payroll allocations consist of off-base housing. The direct impact of Barksdale on the local economy is suggested to be in excess of $430 million. This is composed of payroll, direct expenditures and the value of jobs created on- and off-base.

In the Beginning … Bossier's Roots

Immigrants from Alabama, the Carolinas, Georgia, and Virginia first settled Bossier Parish, or the area that would become the Parish, in 1828. At this time, Bossier was the western part of Claiborne Parish. The Louisiana Legislature created Bossier Parish on February 24, 1843, from a portion of Claiborne. This new Parish was named in honor of the prominent politician, General Pierre Evariste Bossier.

By 1832, a small settlement known as Bennett's Bluff had developed around a plantation adjoining the river. The plantation was a center of business activity by some of the founders of the original Shreve Town Company in the 1830s. Among the original founders of the Shrevetown Company were William Smith Bennett, who died in 1837, his widow, Mary Bennett (daughter of Samuel Bennett) who died in 1902, and James Huntington Cane, who died in 1845. These three and others, including Henry Miller Shreve, created the original company and founded the town of Shreveport. Mary Bennett married William Smith Bennett and shortly after his death, she married James Huntington Cane. Shortly after his death, she married her attorney Granville Alexander in 1846. She ended this marriage and kept the property. Many of the streets in the original portion of Bossier City, known as "Old Bossier" reflect her marriages and family. She had three children and several grand children.

Mary Bennett Cane's Elysian Grove Plantation became the nexus for the population growth east of the Red River. She and her husbands ran ferry and warehouse operations from the plantation. She supported the arts

and was one of the leaders in local society. After her marriage to Cane, the settlement became known as Cane's Landing. Cane City had become the new name by 1860. Mary Bennett Cane operated the family business from her Elysian Grove Plantation. With the clearing of the Great Raft, Mrs. Cane profited by offering the only ferry service on the Red River to neighboring Shreveport.

Mrs. Cane proved to be one of the most powerful women of her day and came to be known as both the "Mother of Bossier City" and the "Mother of Shreveport". She lived at the plantation, shown in **Figure 2.3, Elysian Grove Plantation**, until her death in 1902.

Shreveport served as the capital of Louisiana from March 1863 to the end of the Civil War. It was well fortified and earthworks extended to the east side of the river, as indicated in **Figure 2.4, Protecting Bossier City**. The Confederates placed a pontoon bridge connecting Elysian Grove Plantation to their military complex on the Shreveport side and fortified the area around it.

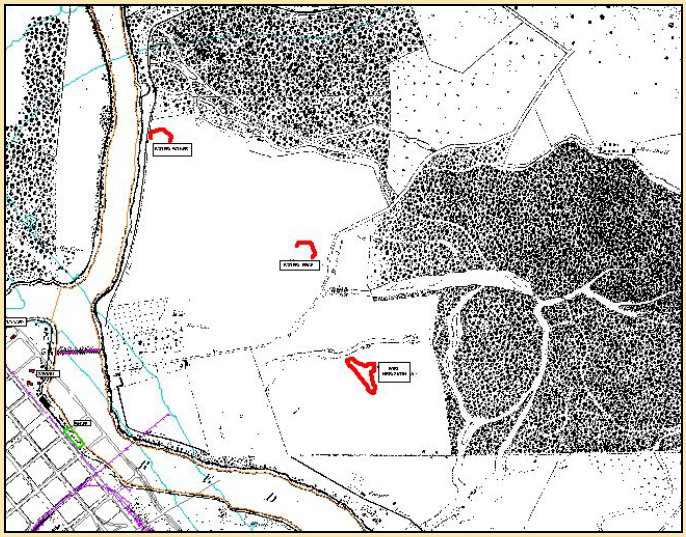
After the Civil War, Bossier's population began to shift to the west along the river closer to Shreveport and the creation of a developing railroad system. The Parish seat was shifted to Benton in 1888, although many wanted it to be at Cane City.

Bossier was the location of two of the earliest roads in northwest Louisiana. One was a stagecoach road that connected Cane's Landing with points east. This road, with few changes, would become U.S. Highway 80. In Bossier City, it is known as East Texas Street.

Figure 2.3
Elysian Grove Plantation

Source: Collection of Eric Brook

Figure 2.4
Protecting Bossier City



Portion of the 1864 Confederate defense map of Shreveport and the surrounding area by Major Richard Veneable, C.S.A. showing the defenses in Bossier City. Elysian Grove Plantation and the pontoon bridge are to the left.

Source: Precision Cartographics

Shed Road became quite famous in the late 1800s. It was a deeply rutted road that ran from the north portion of the plantation to Bodcau Lake. In the 1870s, Bossier Parish Judge J.T. Watkins devised a plan to upgrade the road and make the area accessible to farmers and travelers. He obtained leases from the adjoining landowners for the road's nine-mile length and built a very sophisticated road for its day. The original roadway was drained by digging ditches along the sides and elevated from eighteen to thirty-six inches above the surrounding land. The cost of building the road was $8,500 per mile, and the profit (it was now a toll road) was estimated at $20,000 per year.

In 1905, the settlement's name was changed from Cane City to Bossier City. Bossier City continued to grow and prosper after World War I. Dedication of Barksdale Air Base in 1933 signaled a new era for Bossier City and the surrounding area. The character of the community turned to entertainment in October of 1974 when Louisiana Downs Racetrack opened. The racetrack aided the local economy and prompted additional entertainment development. In the 1990's, three Riverboat Casinos were

introduced and greatly enhanced the entertainment industry in the Bossier area.

A Demographic Profile of Bossier

The population of Bossier is one that is steadily growing and diversifying in a number of ways. However, it remains safe to say that within both Bossier City and Bossier Parish, the population is predominantly White, likely to be middle income, and more likely to be serving in the armed forces.

A Note on Available Data

It should be noted that this Community Profile was prepared following Census 2000. However, at the time of publication, only information available on the census "short form" was available for analysis. Release of Summary File 1 (SF1) by the Bureau of the Census provided information regarding age, sex, population, households, families, and race. Unfortunately, other variables, such as income, education, employment, and various housing characteristics remain unavailable until release of Summary File 3 (SF3). As a result, discussion of many of the variables traditionally available through SF3 has been minimized or supplemented when possible.

Economic data for 2001 also remains unavailable. The most recent federal economic census data for the Shreveport-Bossier City Metropolitan Statistical Area (MSA) dates to 1997. Local data used in the preparation of this profile comes from the Greater Bossier Economic Development Foundation (GBEDF) and from the Louisiana State University in Shreveport Center for Business and Economic Research (LSU-S CBER). Data developed by LSU-S CBER is tracked on a monthly basis and is considered to be very reliable. The GBEDF data is accurate to 1999.

It is always difficult to gain an accurate picture of local or regional data due to the various time lags in gathering, collating, and dissemination. It is therefore advisable that the Bossier City-Parish Metropolitan Planning Commission revisit and expand upon these figures as more recent data becomes available to ensure the information is accurate and appropriate.

Population Change

Bossier City and Bossier Parish, like the State of Louisiana, as a whole, have enjoyed an unbroken trend of population increase over the last several decades. As indicated in **Table 2.1, Population Over Time**, Bossier City and Bossier Parish have grown at a faster pace than the State of Louisiana in each of the last three decennial censuses. The 1980 census reflected a booming economy, particularly in the petroleum industry. The 1990 census, however, took place during a profound recession that lasted for a full ten years. The recession hit the petroleum and agriculture sectors simultaneously, and the effects were felt across most areas of the regional economy. The state did not pull out of the recession until late 1994. Most sources attribute the rise from this recession to the advent of casino boat gaming, rising oil prices, and a demand for Louisiana-made products. The 2000 census illustrates this expansion.

Table 2.1
Population Over Time

Year	Population (in persons)			Rate of Growth		
	Bossier City	Bossier Parish	State of Louisiana	Bossier City	Bossier Parish	State of Louisiana
1970	41,595	64,519	3,645,000	--	--	--
1980	50,817	80,721	4,206,000	22.17%	25.11%	15.39%
1990	52,721	86,088	4,219,973	3.75%	6.65%	0.33%
2000	56,461	98,310	4,468,976	7.09%	14.20%	5.90%

Source: Bureau of the Census

Bossier City, like most municipalities, has undertaken annexation in the last 30 years that has added population to the municipality. This has particularly been the case in areas enjoying new, upscale subdivision and home construction. Some of the largest of the new developments have been built within the five-mile planning and zoning area extending from Bossier City. A large portion of this influx comes from neighboring Caddo Parish and also from retirees returning to Bossier Parish.

Despite annexation, growth in Bossier Parish has historically outpaced growth within Bossier City. This is typical of modern development that seeks limited taxes and restrictions outside of a municipality while still looking to enjoy the amenities of an urban area.

Age

Age in Bossier City and Bossier Parish are largely reflective of trends throughout the State of Louisiana, including a general "graying" of the population as the "baby boomers" begin to reach retirement age. However, growth in the area has resulted in interesting local trends in median age. Within Bossier Parish, the median age has risen to 33.8 years, an increase from 30.6 years in the 1990 decennial census. At the same time, the median age within Bossier City dropped to 32.1 years from 32.7 years, a decrease of 1.83 percent.

Simultaneously, the number of persons of 62 years of age and older increased in the Parish to 12,660 persons from 9,614 persons (31.7 percent). In Bossier City, the number of persons in the same category increased to 7,483 persons from 5,805 persons (28.9 percent). Yet, while the number of persons of retirement age may be increasing, the percentage of persons 65 years and older remains lower than throughout the State of Louisiana. **Figure 2.5, Age in Bossier City** and **2.6, Age in Bossier Parish**, indicate the drop that occurs in population as persons become older.

The slight decrease in Bossier City's median age of 0.6 years over the past decade may reflect multiple factors. First, as older residents move outside the City limits and into nearby newly-created subdivisions, they bring the median age down. Second, families with children who occupy the residences vacated by those moving out will also decrease the total median age. There are more schools, particularly elementary schools, within Bossier City than in the Parish and this urban feature is a desirable quality for young families.

Figure 2.5
Age in Bossier City

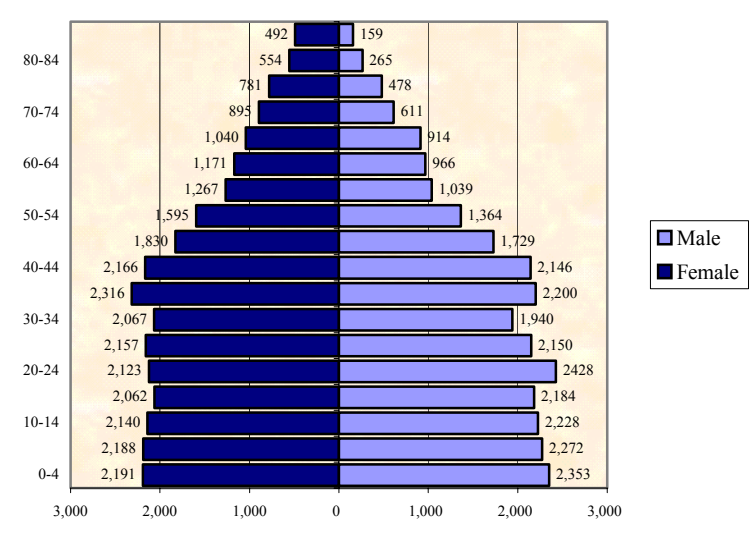
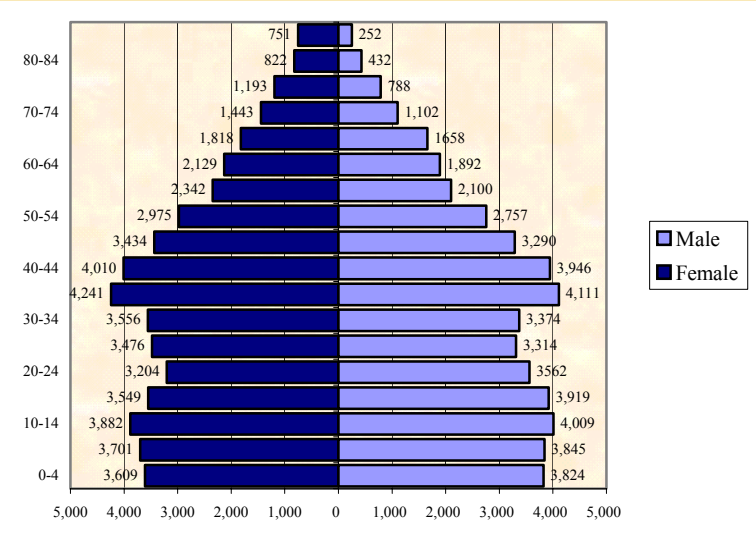


Figure 2.6
Age in Bossier Parish



Source: US Bureau of the Census

Race

Bossier City and Bossier Parish are in a gradual process of diversification. However, as noted in **Table 2.2, Race and Ethnicity**, a very significant majority of the population continues to be categorized as either White or Black. In fact, the majority of diversification in the Bossier area is the result of an expanding Black population.

Over the course of the past decade, the White population grew in Bossier Parish and decreased slightly in Bossier City. In the 2000 census, Bossier Parish reported a population of 71,701 White persons and 65,621 in 1990 – an increase of 9.27 percent. Meanwhile, Bossier City reported 39,177 White persons in 2000 and 40,649 in 1990 – a decrease of 3.62 percent. In Bossier Parish, the White population accounts for nearly half of all new growth.

Table 2.2
Race and Ethnicity

Bossier Parish	Population		Composition		Change, 1990 to 2000		
	1990	2000	1990	2000	Percent	Numerical	Composition
White	65,621	71,701	76.23%	72.93%	9.27%	6,080	49.75%
Black	17,200	20,347	19.98%	20.70%	18.30%	3,147	25.75%
Hispanic	1,982	3,063	2.30%	3.12%	54.54%	1,081	8.84%
American Indian	323	440	0.38%	0.45%	36.22%	117	0.96%
Asian	869	1,295	1.01%	1.32%	49.02%	426	3.49%
Other	93	1,464	0.11%	1.49%	1474.19%	1,371	11.22%
Total	86,088	98,310	100.00%	100.00%	14.20%	12,222	100.00%
Bossier City	**Population**		**Composition**		**Change, 1990 to 2000**		
	1990	2000	1990	2000	Percent	Numerical	Composition
White	40,649	39,177	77.11%	69.39%	-3.62%	-1,472	-39.33%
Black	9,355	12,759	17.75%	22.60%	36.39%	3,404	90.94%
Hispanic	1,661	2,232	3.15%	3.95%	34.38%	571	15.26%
American Indian	255	268	0.48%	0.47%	5.10%	13	0.35%
Asian	707	1,026	1.34%	1.82%	45.12%	319	8.52%
Other	91	999	0.17%	1.77%	--	908	24.26%
Total	52,718	56,461	100.00%	100.00%	7.10%	3,743	100.00%
Louisiana	**Population**		**Composition**		**Change, 1990 to 2000**		
	1990	2000	1990	2000	Percent	Numerical	Composition
White	2,776,345	2,794,391	65.79%	62.53%	0.65%	18,046	7.25%
Black	1,292,557	1,443,390	30.63%	32.30%	11.67%	150,833	60.57%
Hispanic	90,609	107,738	2.15%	2.41%	18.90%	17,129	6.88%
American Indian	19,083	24,129	0.45%	0.54%	26.44%	5,046	2.03%
Asian	38,782	55,332	0.92%	1.24%	42.67%	16,550	6.65%
Other	2,597	43,996	0.06%	0.98%	1594.11%	41,399	16.63%
Total	4,219,973	4,468,976	100.00%	100.00%	5.90%	249,003	100.00%

Note: To avoid duplication White, Black, American Indian, Asian & Other categories outside of Hispanic represent non-Hispanic White, non-Hispanic Black, and so forth.

Source: US Bureau of the Census, 1990 Census of Population and Housing, STF3a and Census 2000 Redistricting Data

On the other hand, the Black population accounted for slightly more than a quarter of the growth in Bossier Parish, but over 90 percent of the growth in Bossier City. Census 2000 reported that 20,347 Black persons resided in Bossier Parish, 18.3 percent more than in 1990. Within Bossier City, the Black population grew by more than 36 percent, from 9,355 persons in 1990 to 12,759 persons in 2000. In comparison to the State of Louisiana, Blacks continue to comprise a smaller percentage of the overall population in both the Parish and City.

Other categories of race continue to grow slowly. Hispanics are becoming a more significant percentage of the local population. However, in 2000, Hispanics accounted for less than four percent of the population in the State, Parish, and City. Asians, likewise comprise less than two percent of the population.

It is worth noting that, while Hispanics and Asians comprise a small portion of the overall population, they represent a significant amount of growth during the period between 1990 and 2000. In Bossier Parish, the combination of Asian and Hispanic populations represented more than 12 percent of all growth, compared to nearly 24 percent in Bossier City.

Income

Because data available at publication of this document did not include an update of income, it is difficult to quantify the specific extent of change in income that has occurred in Bossier Parish and Bossier City over the course of the last decade. However, through examination of data from 1990, prior to revitalization of the economy in the mid 1990's, it is clear that both the Parish and the City are largely middle income. Statistics available from the

1990 census indicate that the percentage of the population earning between $17,500 and $75,000 in Bossier Parish and Bossier City was, in both cases, nearly 10 percentage points higher than the state as a whole. While this may seem like a fairly broad category, it serves to sufficiently indicate that those persons that could be considered low or high income are fewer in the Bossier area.

Employment

Today, Bossier City and Bossier Parish have a diversified economy with strong components in the military, gaming, healthcare, service, and tourism sectors. Agriculture remains a strong factor in the economy with principal crops being soft and hardwoods, cotton, soybeans, corn, sorghum, and pecans. Cattle and horse farms are also significant factors. Minerals recovered in the Parish include oil and gas.

From 1984 through 1994, Louisiana experienced a severe recession. The advent of gaming boats and hotels brought the local economy into a new period of prosperity, which continues today.

Employment has been stable in the region over the last several years, providing an indicator of a strong economy. The most recent unemployment rates for the State of Louisiana show an unemployment rate in Bossier Parish of 4.4 percent.

Bossier Parish forms a portion of the Shreveport-Bossier City Metropolitan Statistical Area (MSA) along with Caddo and Webster Parishes. The economies of the three adjoining parishes are closely linked. In Bossier Parish alone, the civilian work force in 1999 consisted of 36,009 people. Of these, 2,663 were manufacturing jobs and 33,346 were non-manufacturing workers. The latter are primarily engaged in the service sector of the economy. Bossier City and portions of Bossier Parish supply large numbers of workers in Caddo Parish, particularly in Shreveport.

The Greater Bossier Economic Development Foundation tracks the major non-governmental employers in Bossier City and Bossier Parish. The most recent figures are from July 2001.

Bossier Parish has a multi-faceted economy. As indicated in **Table 2.3, Largest Area Employers**, Barksdale Air Force Base, by a wide margin, continues to be the region's largest employer. According to the 1990 statistics, 14 percent of the labor force within Bossier City was in the armed forces. This does not include civilians associated with the base or that are indirectly employed as a result of base services.

While the Air Force Base may be the single largest employer, the gaming sector, including casinos on both sides of the Red River, collectively employs more people. The Shreveport-Bossier City market is the largest gaming market in the state of Louisiana. Horseshoe, Isle of Capri and Casino Magic are in Bossier City and Bossier Parish. Hollywood is in Shreveport, but in Bossier Parish.

Bossier Parish Education and local governmental bodies are also significant employers in both the City and Parish. Manufacturing constitutes a small percentage of top employers.

Housing

Bossier City and Bossier Parish both have very stable, expanding housing markets. Owner occupied residences are 60 percent in Bossier City and 69.5 percent in Bossier Parish. Vacancy rates are lower in Bossier City at 7.9 percent, compared to 9.1 percent in the Parish. In both the City and Parish, family households comprise over 70

Table 2.3
Largest Area Employers

Employer	Type of Business	Employees
Barksdale Air Force Base	Military	8,930
Horseshoe Entertainment	Gaming Casino	2,645
Bossier Parish School Board	Public Education	2,499
Hollywood Casino and Hotel	Gaming Casino	2,100
Isle of Capri Casino and Hotel	Gaming Casino	1,313
Casino Magic and Hotel	Gaming Casino	1,200
City of Bossier City	City Administration	740
Louisiana Downs	Race Track	600
Willis-Knighton Bossier	Hospital	440
Cellxion	Communication	402
Bossier Parish Community College	Public Education	361
McElroy Metals, Inc.	Roofing and siding panels	200

Source: Greater Bossier Economic Development Foundation

percent of all residences. Households with persons 65 years of age and older are 20 percent of the total. The average household size in Bossier City is 2.58 persons and 2.63 in the Parish. The average family size in the City and Parish is 3.09 persons. These are among the highest percentages in the region and point to a strong, family-oriented community.

The past two decades have witnessed significant growth in new home construction in both the City and Parish. Bossier's location, within easy commuting distance to Shreveport, has been a major factor in residential growth.

The majority of these homes recently constructed fall into the middle and higher income brackets. The estimated cost of the 55 new buildings permitted from April 2000 through April 2001 in Bossier Parish, according to the Home Builders Association, was an average of $256,312. The prior 12-month period recorded 66 permits at an average cost of $284,856. For the same period ending in April 2001, Bossier City processed 98 residential building permits with an average cost of $114,138 (excluding the building lot). The previous year Bossier City processed 94 permits, with an average cost of $118,848 (also excluding the building lot).

Future Population Growth

The outlook for Bossier Parish and Bossier City continues to be bright. But it also offers significant challenges. The population of the area is expected to continue to grow, but many of the areas available for new housing and urban development intrude upon the natural and aesthetic ecosystem of the area. The gaming industry will continue to be a significant employer in the region, but like other tourism-oriented industries, may significantly suffer during economic downturns. The military base will likely continue to play a key role in the community; however, coordination with base commanders will be crucial to maintaining a healthy relationship. Housing development will continue as the population grows, but it may not be affordable and located appropriately to serve all residents in both the Parish and the City.

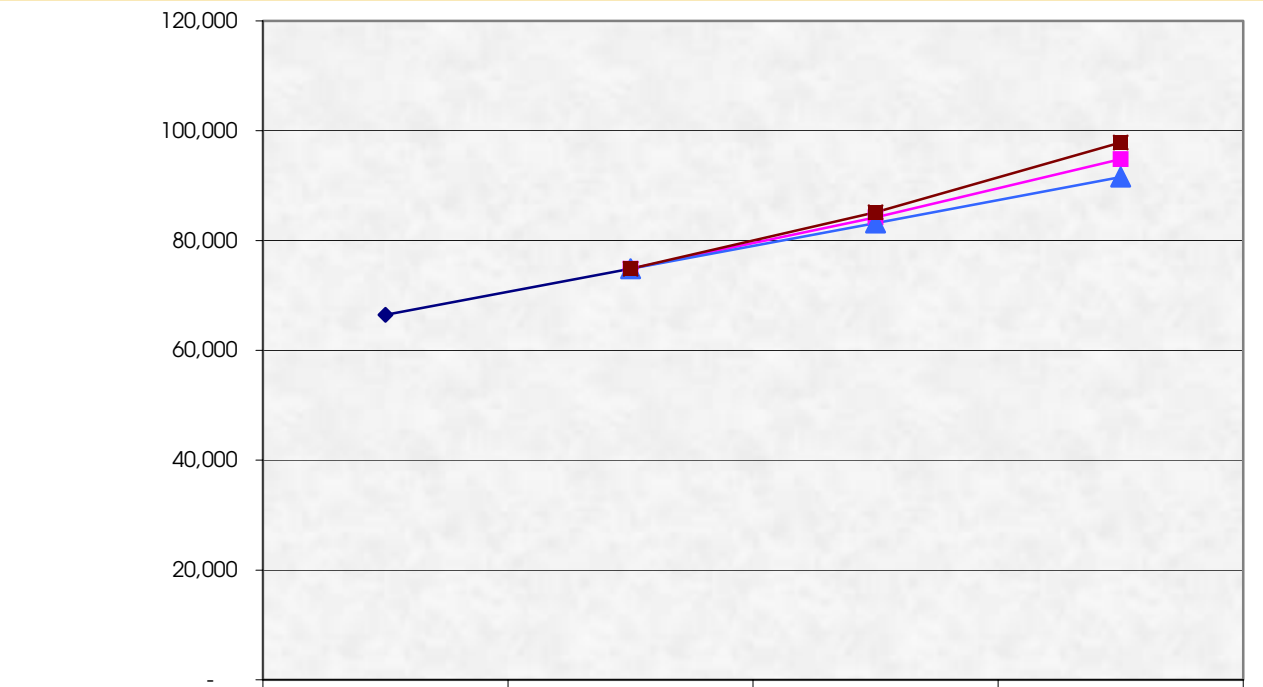
Population projections developed specifically for the MPC Planning Area for purposes of long-range planning indicate that the Bossier metropolitan area will continue to grow at a strong pace over each of the next two decades. As shown in **Figure 2.7, Alternative Population Projection Scenarios for MPC Planning Area**, the projections for 2020 range from 91,500 to nearly 98,000 persons, depending on the projection technique used.

Linear projection techniques were used to project the MPC area population to the Year 2020. Linear projections involve the graphical projection of past historical trends into the future. In this case, linear techniques of choice were simple "linear regression", "exponential growth" and "geometric curve". Linear regression forecasts are straight-line projections of historical population. In a linear growth scenario, the same absolute number of additional persons is added to the population in each period (in this case from 2000 to 2010, then 2010 to 2020). This will result in a declining rate of growth over time since the same amount is being added to an ever-expanding base. Exponential growth assumes a constant rate of growth in establishing a forecast. The geometric curve assumes an increasing rate of growth.

Bossier City and Parish, along with the entire state of Louisiana, have experienced widely varying rates of population growth in recent decades. For example, Bossier City had a 22 percent growth rate during the 1970s, which fell to less than four percent in the 1980s, and then rebounded to seven percent in the 1990s. Likewise, all of Bossier Parish grew by 25 percent in the 1970s, then dropped below seven percent in the 1980s before posting a strong 14 percent population growth rate in the 1990s. Because of the degree of variation, population projections extrapolated from these up-and-down decades might not prove very useful. Instead, the 20-year population projection for the MPC Planning Area was derived from the recent growth experience of the 1990s.

Using population estimates developed specifically for the MPC boundary based on 1990 and 2000 Census data, the three growth scenarios displayed in Figure 2.7 were prepared. Assuming that the exponential (constant growth rate) and geometric (increasing growth rate) scenarios are the most applicable for the Bossier MPC area, the projections generated by these techniques were blended to arrive at a round-number 2010 projection of 85,000 persons and a 2020 projection of 96,000 persons in the MPC Planning Area. This would represent a population growth rate of approximately 13 percent in each of the next two decades and the addition of

Figure 2.7
Alternative Population Projection Scenarios for MPC Planning Area



	1990	2000	2010	2020
Historical	66,479	74,836		
Exponential		74,836	84,244	94,834
Linear Regression		74,836	83,193	91,550
Geometric		74,836	85,154	97,855

Source: Wilbur Smith Associates

roughly 10,000 new people from 2000 to 2010 and then 11,000 more from 2010 to 2020.

While these are simply projections, they reflect trends and recent experience and offer an opportunity to prepare for the future. But it is important to remember that projections cannot account for all physical, social and economic phenomena that may occur over the next 20 years that will likely cause subtle or drastic changes in the area population. It will therefore be important for the Bossier City-Parish Metropolitan Planning Commission to monitor population and economic growth on an ongoing basis to account for both short- and long-term shifts that will influence growth and development in Bossier City, Bossier Parish and the larger region.

It should be noted that at the time this Area Profile was prepared, the Northwest Louisiana Council of Governments (NLCOG) was about to develop new population projections for its region down to the Traffic Analysis Zone (TAZ) level. These small-area calculations will provide a valuable basis for comparison with the Master Plan projections to ensure that the long-range planning activities of the City, Parish and MPC are based on reasonable and reliable population numbers.

In anticipation of continued strong population growth in the coming decades, the Bossier Master Plan will be based on population projections for the MPC Planning Area of ***85,000 persons in 2010*** *and* ***96,000 persons in 2020****. This is a projected growth rate of approximately 13 percent in each of the next two decades and suggests the addition of roughly* ***10,000 new people from 2000 to 2010 and then 11,000 more through 2020****.*

Implications for Urban Growth and Long-Range Planning

The population projections and socioeconomic characteristics presented in this Area Profile chapter will be applied throughout the remainder of the Master Plan. In particular, population projections are needed to gauge:

- future housing demand (Housing and Land Use elements of the Master Plan);
- future employment needs (Market Assessment, Land Use);
- future school population (Facilities and Education);
- future income and "buying power" in the region (Market Assessment, Land Use, Housing);
- future traffic volumes (Transportation, Land Use);
- future utilities demand and necessary capital improvements (Utilities and Infrastructure); and,
- future demand for parks and recreation opportunities and community facilities (Natural Resources, Recreation and Open Space; Land Use; Facilities and Education).

The geographic implications of Bossier's population characteristics and physical growth potential are a central focus of the Land Use element of the Master Plan. The remainder of this Area Profile chapter documents the results of the environmental resources inventory that was completed early in the master planning process.

Bossier's Environmental Setting

As an initial step in developing the Comprehensive Land Use and Development Master Plan, various aspects of Bossier's natural setting and environmental resources were inventoried. This information is important to understand potential constraints to urban development. In addition, areas and features are identified which merit special consideration or preservation as Bossier's population grows and development gradually extends over a wider area.

Topography

Bossier Parish is dominated by the Red River, its associated waterways, and lakes formed by previous courses of the stream. The river has provided the soil that makes the western portion of the parish an ideal area for growing cotton and other commercial crops. The river's flood plain provides a flat surface that is ideal for both pastureland and sustained urban growth.

The central portion of the parish is hilly, part of the Pleistocene terraces formed during the last great Ice Age. Significantly, one place where the transition to more rolling terrain is most noticeable is just east of Louisiana Downs as one crosses Red Chute Bayou and leaves the Bossier City corporate limits. This might also be considered the western "gateway" to the Haughton growth corridor along U.S. 80. The more hilly environment is also evident to the north in the Dogwood area as compared to the residential areas on the west side of Red Chute Bayou.

Hugging the eastern area of Bossier Parish is a portion of the Red River's flood plain that is interlaced with streams that feed Lake Bistineau, which lies southeast of Bossier City. This lake was one of the bodies of water created by the huge log jam called "The Great Raft." This log jam pushed through and sometimes pooled huge amounts of water during the thousands of years of its existence. It clogged the main course of the Red River and forced its water into alternate channels. This obstacle was removed by human intervention in the 1800s, and the remnant stream channels can still be seen today in Bossier Parish. As the water receded, lakes and smaller bayous remained as a testament to the complexities of the raft system. The channels of Flat River, Red Chute, Willow Chute, Mack's Bayou, Bodcau Bayou, Black Bayou, and Cypress Bayou are examples. Lake Bistineau is the largest raft lake in the region. The complex flood plain in Bossier Parish also offers strong evidence of the power of the log jam.

Flooding

The Red River has created a vast flood plain in northwest Louisiana. The area of river channel migration, called a meander belt, runs between the bluff lines of the Pleistocene Terraces. The highest land in this low area is occupied by the natural levees, which are generally found adjacent to the river. The areas of early settlement of Bossier Parish were located on these levees.

Large flood-prone areas lie to the north and south of these natural levees and usually behind, or east of them. Until recent decades, these rural lands were used primarily for cattle grazing and some farming. The areas experiencing the most rapid urban growth are within these flood zones,

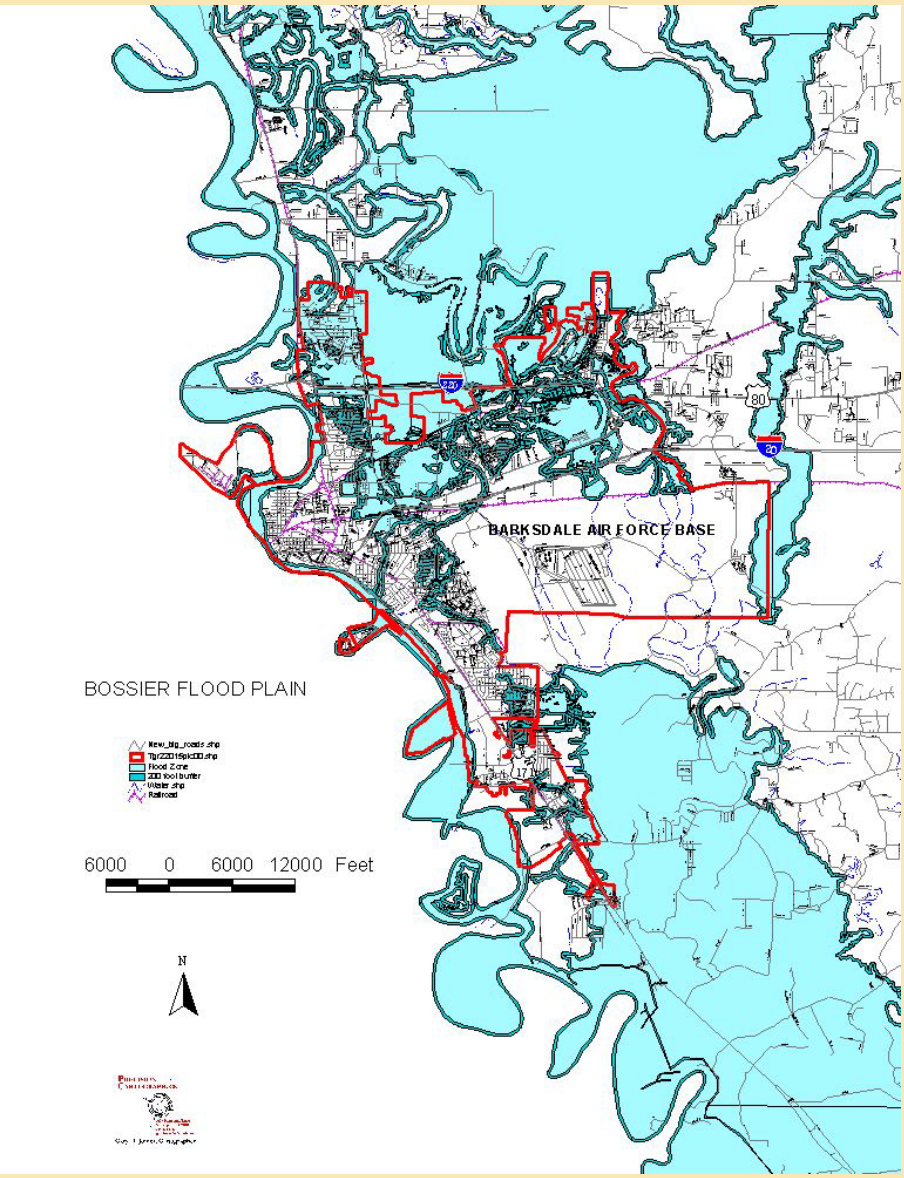
particularly the large zone to the north of Barksdale Air Force Base and extending northward to Benton.

This area to the north of Bossier City is of particular interest to land developers and bears the closest examination for future growth opportunities and concerns. This flood zone, with few exceptions, extends from the Red River eastward to the Pleistocene Terraces of the central Parish. It is laced with ancient channels of the river and is drained by Flat River, Willow Chute, Cypress Bayou, Black Bayou, Fifi Bayou, and Bayou Bodcau. As noted above, much of this area lies behind the natural levee system along the Red River. As a result, in times of extensive rains, the flat tablelands naturally hold water.

Developers have been attracted to this area by the ease of locating excellent sites for subdivisions on flat land with good access to existing roadways. Both Airline Drive, including its northern extension Palmetto Road, and State Highway 3 traverse the plain in an almost due north/south direction. This has created a direct means for commuters and Parish residents to come into Bossier City and Shreveport to work, shop and complete other activities and then return to upscale neighborhoods and scattered homesteads in a semi-rural setting. Roadway widening and improvements to Airline Drive and State Highway 3 continue to be made by the Louisiana State Department of Transportation and Development in recognition of this commuting trend and traffic growth. However, easing of traffic congestion and delays will only make the area more attractive for further development.

As new subdivision developments are created, flooding will continue to be a major issue. This is an indirect consequence to the new neighborhoods since drainage problems within the subdivisions are satisfied on a point-by-point basis. The flooding problems become apparent outside the subdivisions. The bayous and ancient channel remnants must remain open and in some cases be dredged. As new development occurs, the increased number of foundation slabs and more street and parking surfaces reduces the amount of open land that can soak up rainfall

Figure 2.8
Flood Zones

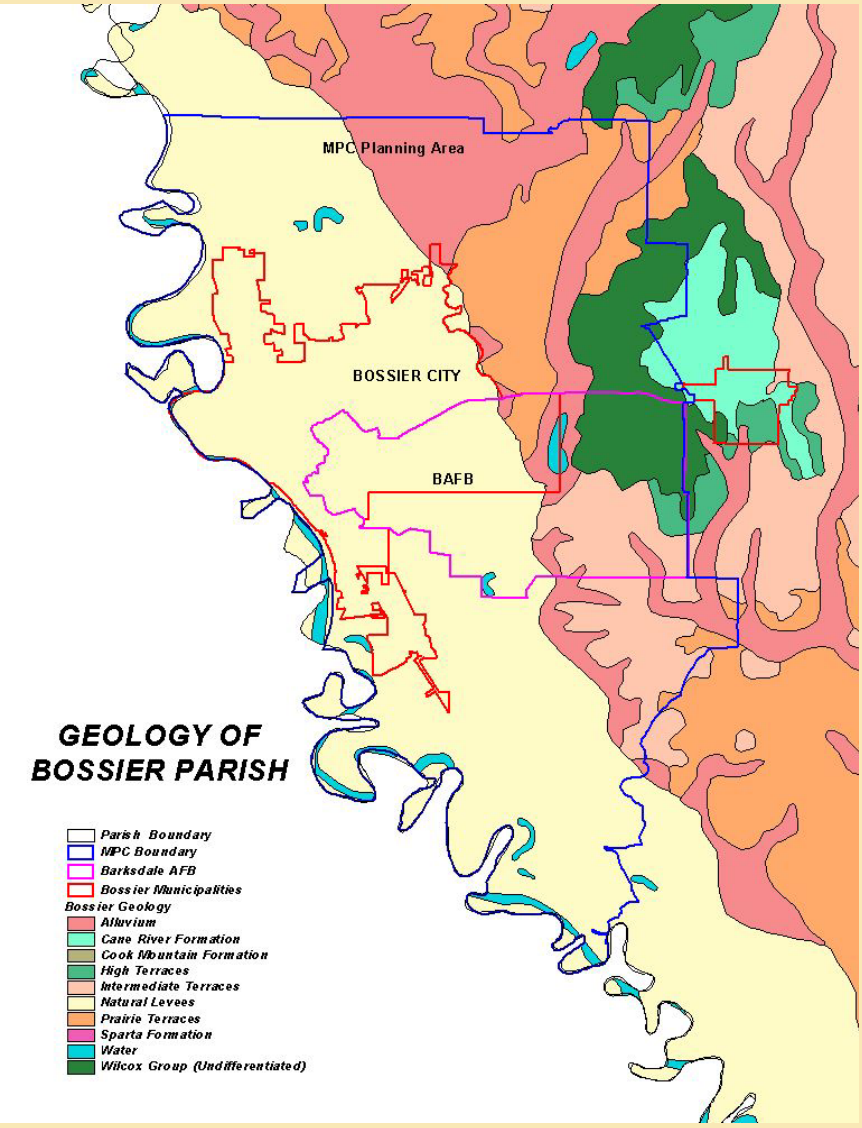


NOTE: Actual MPC Planning Area boundary not shown; boundary has been generalized for planning purposes.
Source: Precision Cartographics

and hold excess water until it can be drained away to the south.

Examples of this phenomenon have occurred in recent years with flooding on Fifi Bayou at Stockwell Place subdivision during and after periods of heavy rain. Tall Timbers subdivision has also experienced extensive flooding to the point that some homeowners may qualify for a federal buyout program. These subdivisions lie in the southern portion of this northern flood zone.

Figure 2.9
Geology



NOTE: Actual MPC Planning Area boundary not shown; boundary has been generalized for planning purposes.

Source: Precision Cartographics

Geology

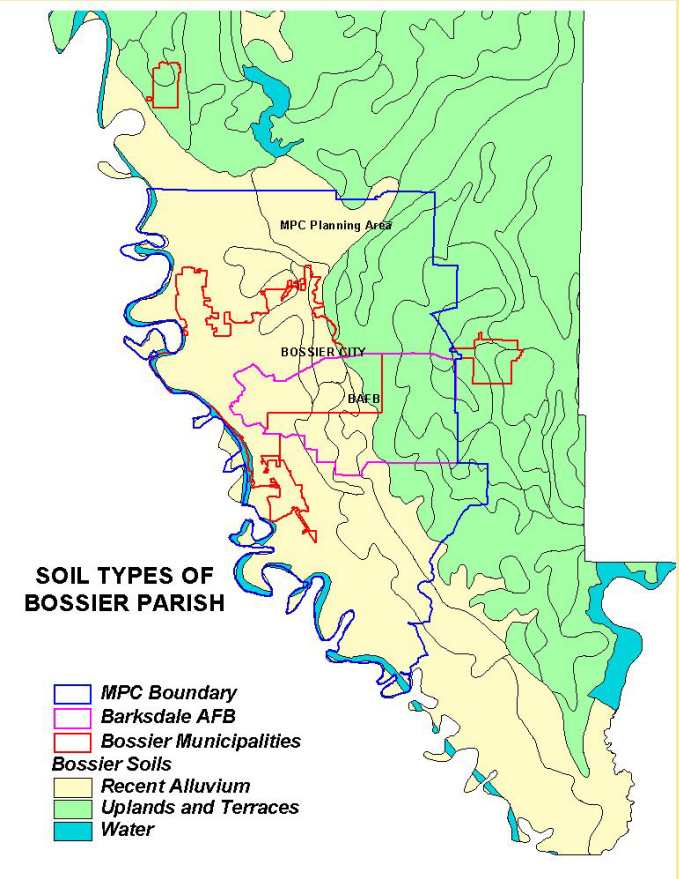
The geology of Bossier Parish is widely varied and complex. The Red River has carved paths through much of the higher terrace lands, exposing rock formations in the north central and east central portions of the parish. In the north are surface features of the Sparta Sand, which charges the aquifer (water bearing strata) of the same name. This important sand formation provides most of north and north central Louisiana with its potable water.

Other sandstone formations are found in the highest portions of the terraces, the most notable of which is the Wilcox Group. The lower portions of the terraces, scored by back channels of the Red River, have natural prairie features. These form the basis for the Black and Cypress Bayou reservoirs and the two wildlife management areas on the northeastern and southern edges of the parish.

In the flood plain, including most of Bossier City and the lands to its north and south, are the natural levees. These are sometimes almost unidentifiable low swells in the land created by countless floods and the vast deposits of sand they leave behind. The levees accommodated the first inhabited areas of what would become Bossier City. The area known locally as "Old Bossier," centered on Mary Bennett Cane's plantation, occupies the core of these levees. The levees were not prone to flooding, even in the worst recorded high-water years.

The area of new growth to the east of the older part of town, particularly the areas on Fifi Bayou, portions of Flat River, and their adjoining streams have suffered repeat flooding in past decades. These areas are behind the natural levees and along the stream conduits that are prone to flooding and which act as temporary reservoirs for pooling excess water, much as they did during the existence of the log jam.

Figure 2.10
Soils



NOTE: Actual MPC Planning Area boundary not shown; boundary has been generalized for planning purposes.

Source: Precision Cartographics

Soils

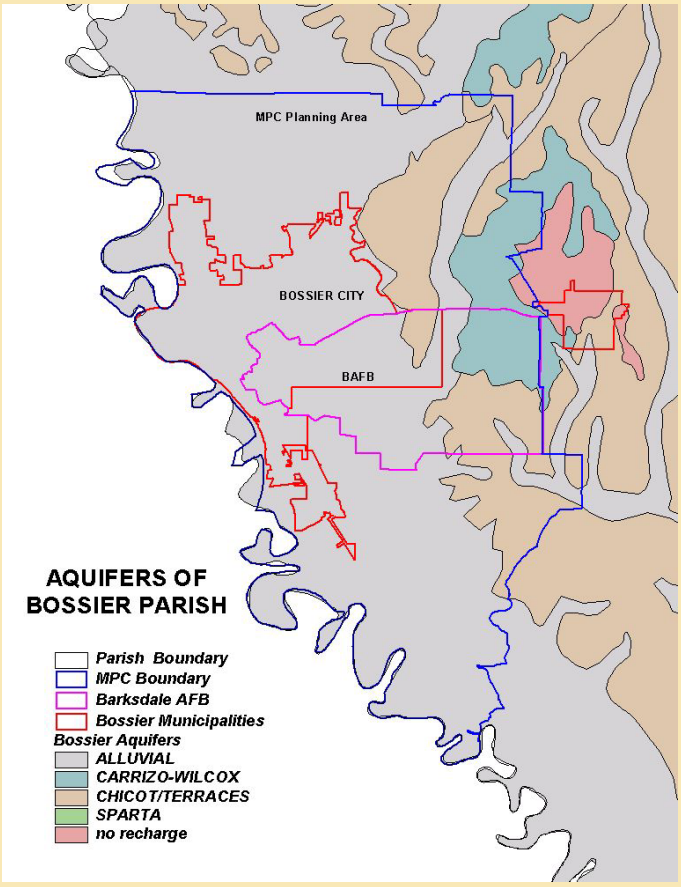
As the Red River flooded and scoured its valley over the millennia, it left the hard red clay and heavy course soils on the terraces. In the flood plain it deposited the deep red, burgundy and tan sands brought down from New Mexico, Texas, and Oklahoma. The relatively flat sandy deposits in the flood plain provide the core of the urban area in Bossier Parish. This portion of the parish is composed of backswamps and natural levees. Much of the former swampy land was converted to agriculture in the 1800s and today is either in pastureland or is urbanized. East of the Flat River and Red Chute, the land rises to the Pleistocene Terraces near the eastern boundary of the MPC Planning Area. This area has some of the highest elevations in the parish.

Aquifers and Ground Water

Aquifers are strata of rocks that are water bearing. When water wells are drilled, they are seeking rock formations, usually sandstone, that have enough air space between the crystals to allow water to pass through them. Bossier Parish has four of these formations: (1) Carrizo-Wilcox, (2) Chicot, (3) Sparta, and (4) surface alluvial. The most important and widespread of these within the MPC Planning Area is the surface alluvial aquifer.

This surface alluvial formation is actually the sand upon which Bossier City and its major growth areas are built. The water lies close to the surface, particularly during extended episodes of rainy weather. The sand captures the rainfall for brief periods of time and flushes it to the south, back into the Red River or one of its associated streams. This aquifer provides the greatest benefit to the

Figure 2.11
Aquifers



NOTE: Actual MPC Planning Area boundary not shown; boundary has been generalized for planning purposes.

Source: Precision Cartographics

higher portions of the natural terraces and the most threat to the lower areas to the east. The same actions that allow shallow flooding along Flat River and other streams also charge this aquifer. This saturates the soil and the flooding can be prolonged until the excess water is drained away.

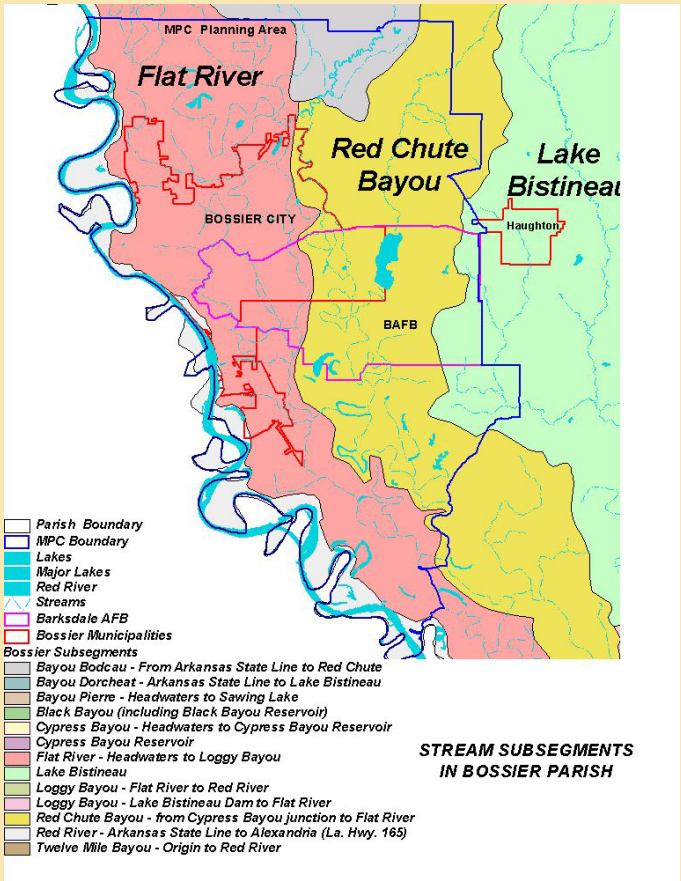
Stream Segments and Surface Water

River and stream water entering Bossier Parish from the north naturally drains in a southerly direction. Central Bossier Parish and all of the MPC Planning Area lie within three broad bands of what are called "stream subsegments." These are natural paths by which surface water moves through the parish.

The westernmost path for surface water, and the one encompassing much of urbanized Bossier City, is the Flat River subsegment. Flat River forms the primary water body in this area. This waterway adjoins and flows parallel to the Red River. In the central portion of the parish lies the Red Chute Bayou subsegment. As the name implies, Red Chute is the primary stream in this area, although there are others. In the eastern part of the parish is the Lake Bistineau subsegment. The primary body of water in this area is Bayou Bodcau.

All three stream subsegments act in tandem, draining water away from Bossier Parish. When massive amounts of excess water are present, they create shallow swampy reservoirs until the water can be moved to the south.

Figure 2.12
Stream Subsegments



NOTE: Actual MPC Planning Area boundary not shown; boundary has been generalized for planning purposes.

Source: Precision Cartographics

Wildlife Management Areas

Bossier Parish is the home of two Wildlife Management Areas (WMAs). Bodcau Wildlife Management Area is located in the northeastern portion of the parish, and Loggy Bayou Wildlife Management area is located in the southeastern corner.

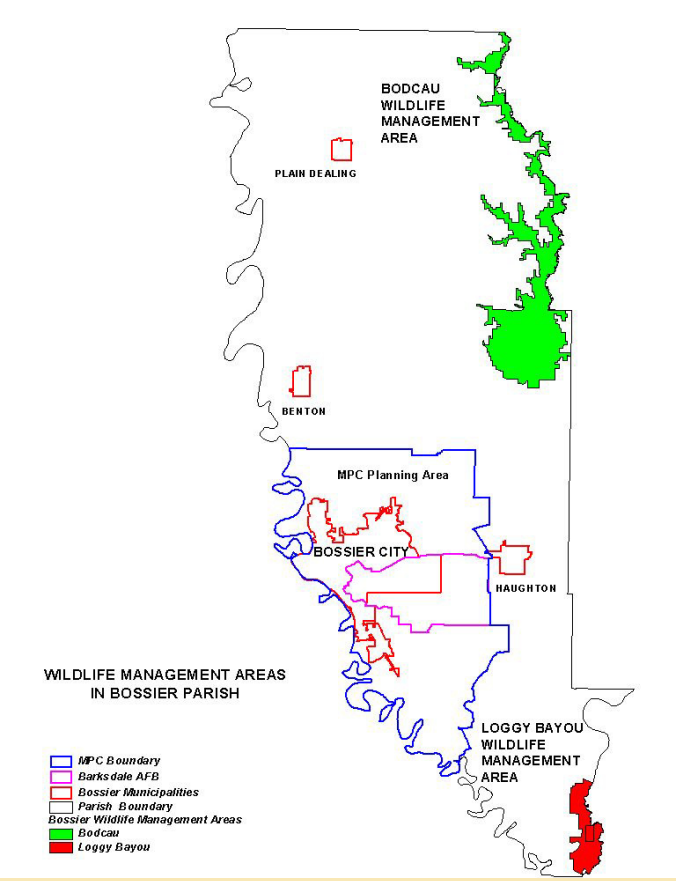
Bodcau and Loggy Bayou are both owned by the U.S. Army Corps of Engineers and serve as flood control project areas. They are jointly managed by the Corps of Engineers and the Louisiana Department of Wildlife and Fisheries. Vegetation includes a mix of pines on the terrace lands and hardwoods and cypress in the bottom lands. Both areas are the protected homes of every species of mammal, bird, reptile, amphibian and insect to be found in the northern Red River Valley in Louisiana. All native plants of the region can also be found within these WMAs. Both WMAs lie within the Lake Bistineau stream subsegment area.

Oil and Gas Wells

Oil and gas exploration began in northwest Louisiana shortly after 1910. Several oil and gas fields have been discovered in Bossier Parish, and there are also an extraordinary number of "wildcat" wells. These are wells not associated with an established field.

There are three extensive fields in and near the MPC Planning area. These are the Elm Grove, Sligo and Bellevue fields. The Sligo field extends well into the eastern reservation of Barksdale Air Force Base. There are several wells operating within the corporate limits of Bossier City. Some of these are located within the "Old Bossier" area of the city and are still actively producing today.

Figure 2.13
Wildlife Management Areas



NOTE: Actual MPC Planning Area boundary not shown; boundary has been generalized for planning purposes.

Source: Precision Cartographics

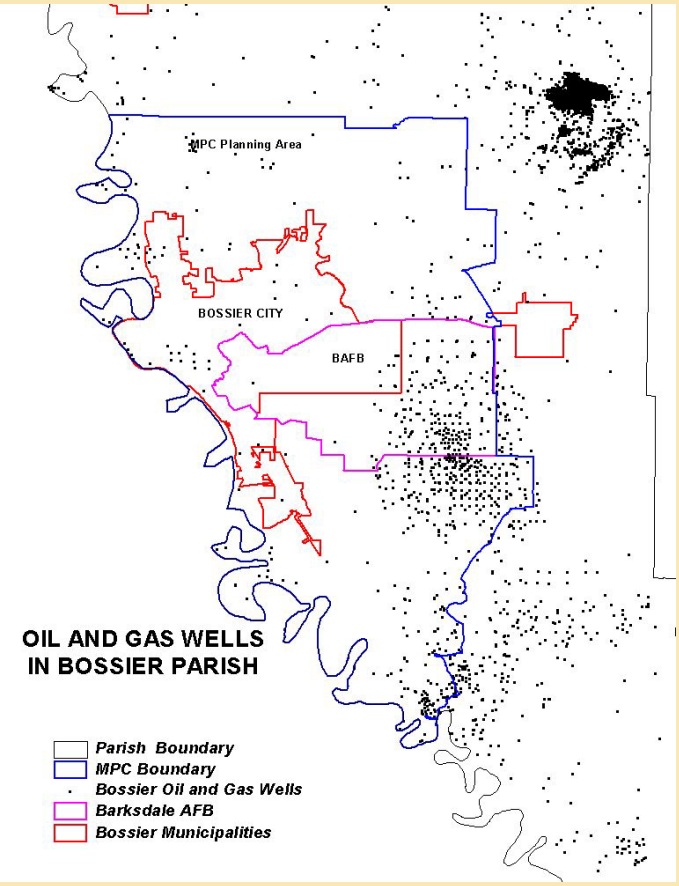
Historic and Cultural Resources

Native Americans have lived in northwest Louisiana for thousands of years. The oldest known site is in Bienville Parish and may date to the time of the pyramids in Egypt. In the last millennium the primary inhabitants of the area were tribal units of the Caddoan Confederacy, a plains Indian culture kin to the Sioux and Cheyenne nations. The Caddoans believed that Caddo Lake, located in Caddo Parish to the west of Bossier Parish, was the "navel of the world." The primary difference between the Caddoan peoples and the other plains tribes was that, while they followed the buffalo herds far to the north and then south as the seasons progressed, the Caddoans settled down and became hunter-gatherers and farmers. There are literally thousands of Caddoan sites in northwest Louisiana.

The State of Louisiana Division of Archaeology keeps a detailed list of all known archaeological sites, both Native American and later occupation sites. These may be as varied as plantation homes, early industrial sites, Civil War defenses, or pioneer homesteads. The list is not available to the general public to protect the sites from looting or damage.

Generally speaking, Caddoan sites are found on natural levees and on the Pleistocene Terraces. In some cases, Caddoan villages may have been several miles long, and this is sometimes the case in Bossier Parish. Additionally, due to massive flooding deposits which may have covered naturally occurring levees, some sites may be located in flat lands that do not appear to have archaeological potential. In some instances, even burial or ceremonial mounds have been completely covered by

Figure 2.14
Oil and Gas Wells



NOTE: Actual MPC Planning Area boundary not shown; boundary has been generalized for planning purposes.

Source: Precision Cartographics

large flooding events and lie beneath the surface of pasture or crop land.

Research during the past decade has led to the discovery of several important archaeological sites within and adjacent to Bossier City. The Red River opposite the Cane's Landing park area has yielded a historic 19th Century shipwreck that may be the Confederate warship, the *C.S.S. Grand Duke*. The existence of Confederate defensive fortifications has been found in the same area, and the locations of large forts have been identified near Bossier High School and on East Texas Street. Researchers have also been working to find four Confederate submarines thought to be in Bossier Parish or Caddo Parish.

The area of the first settlement in Bossier City was centered on the Long-Allen or Texas Street Bridge and extended east to Traffic Street. For most of the 19th Century and the early portion of the 20th Century, this was the nexus of Bossier industry and residences. As Bossier City grew, it developed first in an eastward axis along Texas Street and then north and south from this area. Barksdale Air Force Base created a blocking factor for growth and the city began to grow north around the base and also south, hugging its boundary.

The earliest portion of the city's settlement changed character during the Great Depression and turned from commercial and industrial to residential. By the end of the 20th Century, the early character of "Old Bossier" had almost been forgotten. Now, as this area is undergoing redevelopment by the casinos and the River Walk Entertainment District, studies have shown a richly diversified past.

The area from Traffic Street to the river and from Texas Street to Wyche Street contains the core of this early development. The earliest industry was the Austro-American Stave and Lumber Company, which included a saw mill, a churn factory and a lumber yard. It also had its own railroad spur, which is sometimes mistakenly referred to as the levee along the riverfront. The railroad berm is cut in several places. There were also bulk oil businesses, dry cleaners, printers, and corner gas stations that were part of grocery stores.

All of these historic sites have the potential for containing research possibilities for urban archaeologists. They also share a common threat for hazardous materials and chemicals that must be examined before development can take place. This evaluation falls under the U.S. Environmental Protection Agency's Brownfields program and also the National Historic Preservation Act. Each development or encroachment should have a cultural resources survey conducted. This survey must be performed by a registered professional archaeologist and should be performed in accordance with Section 106 of the National Historic Preservation Act.

Air Force Base Noise and Development Issues

One of the most important concerns for future development to the north and south of Bossier City is the noise factor generated by aircrafts of Barksdale Air Force Base. Barksdale is the largest employer of the region and is vital to U.S. national security interests. The base is the home of the nation's largest concentration of strategic bombers. These B-52 Stratofortresses fly training and, when needed, combat missions all over the globe. Barksdale is the home of the only B-52 reserve training wing in the U.S. Air Force.

It is common to see two or three B-52s making "touch and go" runs in the landing oval circuit at the base. B-52s require a very large area to perform this maneuver. The huge bombers can be seen turning into final approach to Barksdale or climbing out from take-off from as far away as Benton and Elm Grove. The circuit parallel to the runway at Barksdale also takes the planes over Haughton.

Some area residents have complained about the noise of the planes' engines, but the Bossier community has always firmly supported the base and its mission. As one person said in a recent public meeting, "That 'noise' is the sound of freedom and you better be glad you hear it."

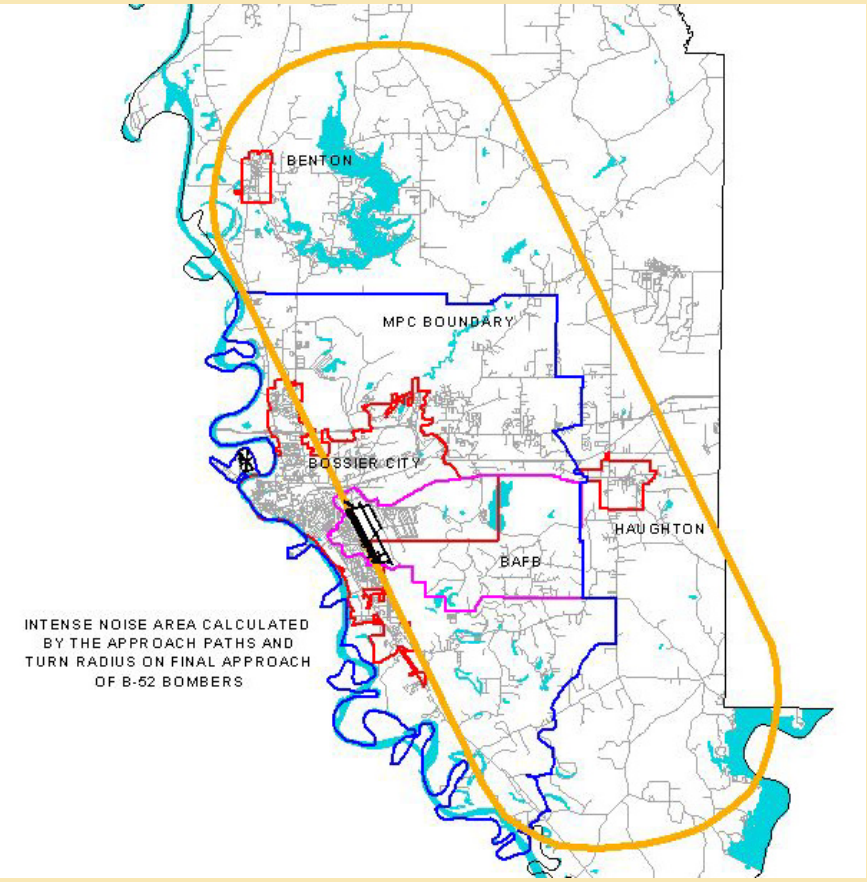
Another long-range concern is urban development and infrastructure encroachment on Barksdale's flight path. One of the most important considerations for keeping the bomber fleet at the base, in addition to the region's weather and its position within the continental United States, is that the base is in a relatively open environment with urban sprawl at a minimum. Large prestigious bases have been targeted for closure by the federal base reduction commission due to urban safety and noise concerns. The best regional examples of this are Carswell Air Force Base in Fort Worth and the Dallas Naval Air Station. If urban growth and congestion begin to

become concerns for Barksdale, the long term viability of the base may come into question.

The future I-69 corridor could be another potentially adverse factor. Of the four proposed routes through the Bossier area, two extend further south (Routes C and D) and two hug the base perimeter closely (Routes A and B). The new interstate corridor will invariably bring growth and associated development, but this may be both a blessing and a long-range problem for the Bossier region.

Ongoing urban growth and the direction and nature of this development relative to the Air Force Base grounds and influence areas will require both Barksdale officials and developers and residents to be ever more keenly aware of impacts from – and to – B-52 operations in Bossier's local air space. These impacts can involve noise and vibration, the height and bulk of buildings and other tall structures/towers, and the location and density of residential population or other special populations (schools, hospitals, etc.).

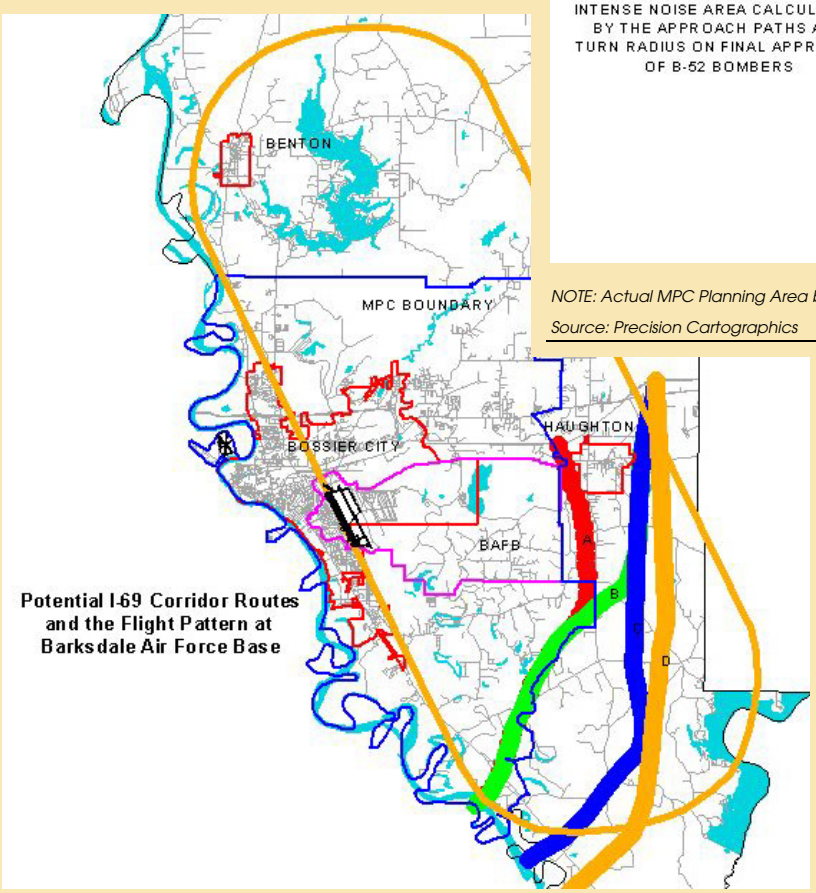
Figure 2.15
Barksdale Air Force Base B-52 Flight Paths and Noise Impacts



NOTE: Actual MPC Planning Area boundary not shown; boundary has been generalized for planning purposes.

Source: Precision Cartographics

Figure 2.16
Potential I-69 Corridors Relative to Barksdale Flight Patterns



NOTE: Actual MPC Planning Area boundary not shown; boundary has been generalized for planning purposes.

Source: Precision Cartographics

Vision & Goals

The Bossier Comprehensive Land Use and Development Master Plan is a bold step into the 21st Century for Bossier City and Bossier Parish. The Plan, though broad in nature, is intended to provide clear and decisive statements concerning the community's goals and objectives, the general distribution and allocation of land use and transportation functions, and other general guidelines. The plan serves as an overall guide for future growth and development while allowing flexibility in its ability to respond to new ideas and direction as the region progresses and the partnerships between the City, the Parish the Bossier City-Parish Metropolitan Planning Commission (MPC) and other interested parties flourishes.

> ***Vision*** *– It reaches beyond the thing that is, into the conception of what can be. Imagination gives you the picture. Vision gives you the impulse to make the picture your own.*
>
> ***- Robert Collier***

To establish this positive framework for growth, the plan must first create a sense of overall vision. Vision represents the point from which the planning process begins. It is the overall consensus for how the community will be viewed as it embarks on the 21st Century. It is the understanding that the community offers many strengths and faces several challenges. The vision offers a unique image of the future based on the community's core values, building upon its strengths, and overcoming any obstacles. Most important, the vision is not simply an ideal image, it is achievable, even if the path is arduous.

Vision is the recognizable point in the planning process at which the community ceases to examine existing conditions and begins to look forward to the future. A single, encompassing vision dictates the tone of the Land Use and Development Plan. It is reflected in a vision for each of the various elements of the Plan. In addressing major themes such as land use, transportation, community image, and utilities, vision is the first step on a road to implementation that is followed by goals, objectives and action statements.

Goals, will serve as the general ends toward which efforts are directed. Goals are broad and, as the next step, they begin to answer the question, "how will the vision be implemented?" Goals are qualitative but offer no strong quantitative measures. Goals are designed to stretch and challenge the imagination while remaining realistic and achievable.

Objectives are clear targets for specific action. They mark interim steps toward achieving vision and goals. Responding to the relevant goal, an objective is quantifiable and more specifically answers the question of "how?". It is a measurable statement of intent that emphasizes the results of various actions at the conclusion of a defined period.

Action statements are specific tasks that must be completed to achieve goals and objectives. An action is the means for transforming goals into results, with an efficient allocation of resources and mindful of fiscal constraints.

In this context, community goals, objectives and actions are structured to provide direction for the future growth and appropriate development of the Bossier area. In a structure that begins broadly, each step toward implementation more precisely answers the question of "how?". Conversely, the steps can be taken in reverse to answer the question of "why?" Taken either way, the process begins and ends at the foundation: vision.

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Determining Vision

Technically, it is called a "visioning process." More simply, determining vision involves gaining an understanding of what the Bossier area "would like to be when it grows up" and applying those ideals to each of the Plan's elements. Vision statements established in this chapter are a reflection of public opinions, data collection and field observation in which individuals cited assets, challenges, needs, and possibilities. Information was gathered during the process of establishing existing conditions and refined as the planning process reached a conclusion. They reflect the dialogue of numerous stakeholders, including elected officials, civic leaders, business owners, residents and any other members of the general public that sought to play a role in planning for the future of Bossier.

Vision is a derivative of the existing physical, social and economic condition of the community, including its assets and challenges. It describes the practical ideals of the community with full understanding of the present situation and the preferred future.

> *You are here not only to make a living. You are here to enable the world to live more amply, with greater **vision**, and with finer spirit of hope and achievement.*
>
> ***- Woodrow Wilson***

Assets of life in the Bossier Area

Assets are those amenities of living within the Bossier Area that positively impact quality of life. They are items that are appreciated or cherished by the local community and warrant ongoing maintenance or enhancement.

Sense of Community and Community Values

- Strong work ethic
- Number and quality of churches
- Small town character of residents
- "Connected" citizens that care
- Low racial tension
- Proud community with a sense of identity
- Neighborhood sense of place and ownership
- Broad base of volunteers
- Diversity and growth of retirees, including military
- Family oriented

Environment and location

- Red River waterfront
- Natural beauty
- Lakes with fishing and recreation opportunities
- Climate
- Bedroom community in transition
- Growing season
- Golf courses

Economic Opportunity

- Gaming industry and riverboat funds
- Available land
- Quality local developers
- Availability of industrial parks
- Hub for oil well company

Trade and Transportation Amenities

- Transportation corridors, including I-20, 220, Benton Road, Arthur Teague Parkway, and Airline Drive
- Port of Shreveport-Bossier
- Barksdale Air Force Base
- Shreveport Regional Airport

Facilities and Services

- Medical Facilities
- Schools, including the Bossier Parish Community College
- EMS/Fire protection and Class 1 ISO fire rating
- Century Tel Center
- Law enforcement and low crime rate
- Expanded water plant
- Proximity to Shreveport
- Multi-modal transportation network

Governance

- Cooperation among public officials
- Low impact fees for development

Cost of Living

- Low insurance cost for businesses
- Low cost of electricity
- Low tax rate
- Low overall cost of living

Challenges to Life in the Bossier Area

Challenges represent real or perceived issues that negatively impact Bossier. It is important to realize both real and perceived issues and develop the capacity to address each appropriately. Too, challenges should be viewed as additional opportunities for the area. Once addressed, issues such as the appearance of corridors have the potential to become very strong assets and marketing points for the community. The also represent the chance to show positive results in implementing the Comprehensive Land Use and Development Plan.

Sense of Community and Community Values

- Irresponsible landlords
- Complacency of citizens
- Lack of Strong Neighborhood Associations
- "Small-town mentality"
- Lack of downtown
- Low voter turnout
- Abundance of on-premise signage
- Appearance of corridors along Barksdale Boulevard

Environment and location

- Waterway and the upstream impact
- Poor drainage and topography
- Significant environmental issues, including refineries and brownfields

Economic Opportunity

- Minimal business development
- Lack of high caliber retail
- Shortage of skilled labor
- Difficulty providing and maintaining higher paying jobs and employees

Trade and Transportation Amenities

- Poor street lighting, particularly along Benton Road and Airline Drive
- Poor quality and abundance of train crossings
- Limited pedestrian facilities, including sidewalks
- Limited public transit
- Significant traffic congestion with a large number of accidents and few alternate routes
- Only two north/south thoroughfares and no relief route for east/west thoroughfares
- Number of railroad crossings and lack of access into neighborhoods

Facilities and Services

- Few quality sites for festivals
- Lack of family entertainment, including activity areas or a local theme park
- Lack of parks, soccer fields and practice fields

Governance

- Lack of code enforcement
- Lack of young leadership
- Lack of Comprehensive Plan
- Lack of building codes and zoning beyond MPC boundary

Growth and Housing

- High growth rate
- Uncontrolled "sprawl"
- Strong lack of quality, affordable housing
- Encroachment on Barksdale AFB
- Blight and lack of maintenance for local structures
- Poor manufactured housing compatibility and value

Envisioning Future Bossier

Through assets and challenges, numerous public meetings and significant data collection, a series of desires and aspirations for the future emerge that represent the essence of the vision for Bossier. Assembled information indicates that stakeholders seek a future Bossier that includes:

- Enhancement of the small town character and neighborliness that is associated with today's community, including a strong set of values, ethics and identity.
- Protection and utilization of the natural resources of Bossier, both to protect the natural beauty of the area and to better address issues of drainage and flooding.
- A development pattern that will create a new "downtown", utilize areas such as brownfields for rehabilitation and redevelopment, require variety and compatibility of housing, manage growth patterns, and protect community resources.

- Enhanced economic opportunities, particularly for business development, that includes a multitalented workforce, designated opportunities and a strong incentive program for meeting the community's needs.
- An improved multimodal transportation network that includes pedestrians, transit, automobile and truck traffic, rail, water and air while also providing adequate and safe access to neighborhoods.
- Enhanced facilities and services for area residents, including a strong park system with additional neighborhood parks and trails.
- A community that is attractive to residents and visitors alike, with aesthetic corridors, well-maintained neighborhoods, thriving commercial districts and quality riverfront activity.
- Protection of Barksdale Air Force Base and the surrounding Air Installation Compatible Use Zone from encroachment by development.

> *The bravest are surely those who have the clearest **vision** of what is before them, glory and danger alike, and yet notwithstanding, go out to meet it.*
>
> ***- Thucydides***

Vision for the Bossier Comprehensive Land Use and Development Plan

The visioning process has established a clear understanding of the condition of Bossier and the aspirations of community stakeholders. As a result, the following represents the vision for the Bossier Comprehensive Land Use and Development Plan:

Bossier strives to be a dynamic and attractive community that aggressively seeks to improve area quality of life through wise use of resources; appreciates small town and rural character and values; provides an abundance of parks, facilities, services, and infrastructure; promotes healthy neighborhoods and districts; and establishes the area as a desirable home for present and future generations of residents and businesses.

Element Vision and Goals

The vision for the Bossier Comprehensive Land Use and Development Plan is designed to set focus on the broad picture that stakeholders view as the future. Similarly, a vision statement can be applied to each element of the Plan to act as a guide for goals, objectives and action statements. The identification of vision and goals provides a basis for decision-making during both development and implementation of the plan. Goals also help to promote consistency in plan implementation as future changes occur in development trends and the physical form of the community as well as the government leadership.

Land Use

Envision Bossier as a community of balanced and responsible growth that protects its resources, promotes sensible development and appreciates small town character.

- Promote efficient, long term growth within the MPC Planning Area and outside of sensitive development areas.
- Achieve a balanced, diverse and dynamic pattern of land uses that preserves and enhances the character of Bossier.
- Encourage preservation and sensitive utilization of natural areas, particularly floodplains, wetlands, the Red River and its tributaries.
- Utilize, revitalize and maintain the urban areas of Bossier in a manner that represents dynamic character and strengthens economic capacity.
- Develop new areas with an appreciation for sensitive environments, long term quality of life, economic efficiency, and community character.
- Develop and implement a series of policies, regulations, processes and incentives that consistently represent the vision of the community and the character of the area.

Parks and Open Space

Envision Bossier as a community with an abundance of quality, well programmed parks and open spaces, including both active and passive uses, that is interconnected by a pedestrian network and protects the area's natural features.

- Promote the conservation of natural resources through park and recreational land acquisition, open space preservation, and environmentally sensitive planning.

- Provide a diverse blend of parks, recreation and open space areas throughout the City and the MPC planning area.
- Encourage the preservation of open space to reflect the unique resources of Bossier's natural environment and to enhance the community's livability, aesthetic quality, and natural beauty.
- Expand and enhance youth and recreation programs to meet the current and future needs of the City and Parish.
- Promote water activities and programs such that all persons have equal access and opportunity to enjoy the recreational value of local water resources.
- Continue the parks and recreation area improvement program, including maintenance, renovation and/or redevelopment of existing and new public parks and facilities.
- Develop an on- and off-street network of pedestrian and bicycle ways, nature trails and linear linkages throughout the MPC planning area.
- Establish cooperative agreements and coordinated efforts with other governmental jurisdictions, educational bodies, and private sector entities.
- Identify dedicated funding sources for the acquisition, development, operation and maintenance of parks and recreation areas, facilities, programs and activities.

Transportation

Envision Bossier as a community that offers a strong multimodal network that is attractive to business, residents and visitors while also providing adequate and safe access to neighborhoods and other area amenities.

- Improve mobility through key thoroughfare improvements, new construction and enhancing the existing street infrastructure.
- Mitigate railroad grade crossing conflicts to reduce interference with other modes of transportation.
- Promote pedestrian and bicycle pathways as a viable alternative to automobile traffic, particularly one that is tied to a public transportation system.
- Enhance the public transportation system to allow the combination of walking and public transportation to be considered a viable alternative to automobile use in the MPC Planning Area.
- Enhance the coordinated use of street, rail, water and air transportation as a single system designed for the efficient movement of people, goods and materials.
- Manage access to land uses from the transportation system in order to reduce or minimize the risk of accidents and increase travel efficiency.

Utilities and Infrastructure

Envision Bossier as a community with a quality, cost effective and environmentally responsible infrastructure system designed in coordination with desired growth patterns.

- Provide safe, reliable utility services to adequately meet present and future residential, commercial and industrial demands.
- Develop a comprehensive flood and stormwater management program to eliminate or mitigate floodplain and localized flooding, stormwater quality issues, and bank erosion within the master plan study area.
- Provide environmentally sensitive, high quality service level, utility systems to adequately support future land use and development planning.
- Revitalize all aging and failing utilities infrastructure.
- Enhance existing utilities for maximum operating and maintenance efficiency.
- Assure high quality, low maintenance utility infrastructure that is in regulatory compliance.
- Improve efficiency and effectiveness of the Utilities Department in preparation for an expanded area of responsibility due to anticipated growth and development within the MPC area.

Housing

Envision Bossier as a community that provides a variety of housing to area residents in a manner that protects sensitive areas, holds all housing to the same high standards, creates dynamic neighborhoods, promotes affordability, and appreciates rural and urban character.

- Ensure that a variety of housing options are available to new and current residents of Bossier that are affordable at all income levels.

- Recognize manufactured housing and modular housing as viable and affordable housing options that are acceptable upon meeting requirements regarding appropriate location, appearance, function and quality.
- Maintain a high standard for existing neighborhoods, including ongoing maintenance, neighborhood revitalization, community leadership and development of amenities.
- Maintain an attractive, quality housing stock that promotes Bossier as a community with pride.
- Promote sensible growth that takes advantage of proximity to services and amenities and minimizes the strain on tax revenue.
- Create new residential development that offers the appearance, amenities, comfort and resources of a neighborhood or urban village.
- Design rural subdivisions as urban villages that respect the rural character of Bossier Parish yet meet future needs as the urban area grows.
- Preserve flood prone areas and other natural resources to the extent practicable through use of alternative development techniques, and design residential areas to minimize flooding problems and create amenities.

Image & Design

Envision Bossier as an attractive community of obvious entry, strong neighborhoods, dynamic commercial and mixed use districts, aesthetic corridors, and a well developed riverfront.

- Strengthen the visual quality of major corridors and roadways.
- Protect neighborhoods from surrounding and incompatible activities and uses.
- Create identity for neighborhoods
- Enhance the visual image of Bossier's major entry points.
- Celebrate entry points into significant districts and use areas.
- Take advantage of and protect the vital amenity of the river front.
- Screen industrial and commercial areas from corridors and adjacent neighborhoods.
- Give individual definition to significant use districts such as the Downtown, Riverfront, and Arena areas.
- Achieve a consistent identity throughout Bossier.

Facilities & Education

Envision Bossier as a community known for coordination of resources, highly regarded services and adequate, quality facilities to meet and exceed area health, welfare and safety needs.

- Expand staffing and facilities as needed to maintain high standards for law enforcement functions in the MPC Planning Area.
- Provide for facility maintenance and development, staff enhancement and equipment acquisition needed to meet the long-term fire protection needs of the MPC Planning Area.
- Support expansion of the Bossier Parish Library System and its efforts in providing educational and informational services to residents within the MPC Planning Area.
- Develop and implement a long-range facilities plan for municipal operations to address future space needs and ensure access to all residents.
- Support the Bossier Parish School Board and other education institutions in providing quality education opportunities, including school facilities that are adequate to handle fluctuating enrollment projections.

*Every great work, every great accomplishment, has been brought into manifestation through holding to the **vision**.*

- Florence Scovel Shinn

Achieving the Community Vision

As the foundation of the planning process, the vision represents the starting point for both preparing for the future and for successful plan implementation. The means of implementing vision starts with the previously mentioned goals and is described in further detail through the variety objectives and action statements.

Implementation is a combination of policies and actions. A series of six policies are discussed in Chapter 12, Policies and Strategies. Tasks for implementation, including time, priority and responsible parties, is detailed in Chapter 13, Implementation.

Market Assessment

Market analysis forms the basis for real estate investment decisions regarding use, location, size, pricing, design and quality. Forecasting market support entails examining both sides of the traditional supply-demand equation. But while quantifying the supply of complementary and competing uses is fairly straightforward, projecting demand melds standard methodologies and established analytic techniques with intuition, particularly when projects intend to induce consumers to change how they relate to the built environment: where they live, work, shop and play.

Evaluating Real Estate Market Opportunities

Real estate market analysis encompasses a host of data-driven assessments that help decision-makers evaluate the risks and potential rewards inherent in buying, developing or redeveloping property. In addition to developers, those benefiting from real estate market analysis include elected and appointed officials, lenders, neighbors, competitors, and entities operating complementary uses.

The regulatory system, particularly at the local level, affects feasibility; consequently, government has a clear interest in real estate market analysis because the community benefits from appropriate projects that satisfy its goals for the built environment while fulfilling market needs and thus generating a return to investors. Often, however, the public sector focuses on density, traffic and other physical issues without exploring whether a proposed project can succeed given current market dynamics. At the same time, developers are quick to posit dire economic consequences resulting from the mildest land use regulations. Real estate market analysis can help identify feasible development programs that satisfy both investment and design criteria, garnering public support along the way; particularly helpful if special exemptions or other unusual entitlement proceedings ensue. In short, real estate market analysis can mitigate the harmful effects of overly optimistic or pessimistic assumptions on decision-making that emerge when people are forced to evaluate complex issues without sufficient information.

Although techniques for evaluating market potential vary by real estate product or the type of development being contemplated, all address the following fundamental issues:

- Can the project capture business from users willing to rent/buy space and/or the products, services or experience being offered within it?
- What is the relationship between price and market absorption?
- How should the product be tweaked to optimize its performance in the market place and/or improve its competitiveness?

Like most complex systems, real estate analysis is fraught with inherent contradictions and conundrums that defy statistical approaches. Further, project success depends on notoriously fickle consumers behaving consistently and rationally. Why have 15 restaurants failed at a given location, while others are thriving nearby? Why are cup holders enough to convince people to drive an extra 20 minutes to a different movie theatre? Why is this neighborhood hip? Although hindsight often explains real estate successes or failures, it usually takes judgment, experience and intuition to anticipate them.

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At the end of the day, however, all real estate market analyses concern either:

- A use in search of a site
- A site in search of a use

Supply and Demand

As noted previously, real estate market analysis entails identifying sources of both supply and demand for the project type envisioned. The supply side represents the existing or expected competition that offer the market a comparable choice. The demand side represents consumers with affinity and need for the project. In real estate, all locations are, literally, unique although they may share the market: the source of demand.

In real estate market analysis, "the market" can mean many things describing the source of demand depending on the property type undergoing evaluation. The market may be understood or described in many ways, including:

- **geographic**, as in a region delivering customers to an enterprise;
- **demographic**, as in shared socio-economic traits that describe income, age and sex;
- **psychographic**, as in the shared lifestyle orientation conveyed by such shorthand descriptors as "yuppie" or "empty-nester"; and,
- **product types**, as in "tablecloth restaurants" or regional shopping center.

Market segmentation in real estate continues apace, with new products supplementing established ones or replacing those that have become obsolete. The basic property types — residential, retail, office, industrial, hotel, institutional, etc. — can be categorized according to market requirements revolving around location, price and target user. "Category killer," "big box," "strip center," "outlet mall," or "family restaurant" all convey very specific information.

Evaluating Supply

Analyzing the supply of competing projects requires an objective assessment of:

- inventory as available space or competing real estate product, as well as proposed projects and those under construction;
- vacancy rates, reasons and implications about the performance of different types of space;
- absorption rates and user traits;
- price (rent or sale) according to product location as corrected for terms and concessions (tenant improvement allowances, escalation clauses, etc.); and,
- characteristics — advantages and disadvantages — of the competitive set relative to the proposed project.

Ultimately this information forms the basis for determining whether a given market is under-served relative to a given product type. Signs of trouble — a market careening out of balance — include excess construction activity and/or rising vacancy rates (some is desirable to maintain affordability and accommodate slippage), negative absorption (more space becoming vacant than becoming occupied), falling rents/sales prices, and skittish behavior by major regional employers.

Evaluating Demand

Projecting demand — and determining how best to satisfy it — is much more difficult than evaluating supply. It considers:

- demographics of available populations and/or households;
- purchasing power, disposable income and wealth;
- employment and industrial sectors;
- travel tolerance (time, distance and cost); and,
- future growth, if any, anticipated.

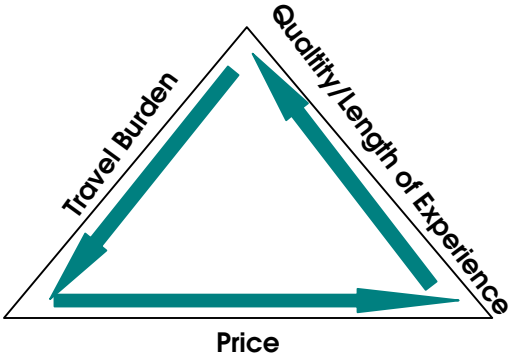
Taken together, the supply and demand assessments enable developers to refine the real estate product to fit the needs of a specific market niche.

Consumers Behaving Rationally

Economic theory holds that consumers always behave rationally, a construct that often fails to explain how people actually function in the real world. However, in a

world where many duplicate experiences exist (consider fast food or convenience stores) some assumptions about consumer behavior can be made that relate to specific uses and also evidence common sense. A few of these include:

- When uses are exactly or nearly substitutable, people will not drive past one to get to another equivalent use.
- Products need to be correctly positioned in the triangle shown below for customers to perceive value.



The sweet spot differs for every real estate product; going to Disneyworld is not the same as going to McDonald's. For special occasions and places, having the experience trumps typical expenditure patterns and demographic indicators like household income.

- People willingly walk great distances from their cars when the objective is in sight or when the real estate product is billed as a single unified destination.
- Multiple nameplates convey convenient choice, enabling competitors to thrive by being together. That is why shoe stores co-locate and auto-malls exist.
- Anchor tenants drive perception of character.

Capture and Leakage

When a real estate product succeeds in attracting dollars, it captures dollars from its competitors and the host community benefits. Benefits accruing to the host community range from direct revenues like sales tax dollars to indirect and induced benefits like greater spending at nearby stores, higher property values and increased employment. However, the market seldom rests in a static state: new competitors arrive, congestion denudes the experience, patrons become priced out of the market or convinced that a project's 15 minutes ended. The project's location in the triangle shifts and it must adapt (continue achieving desired returns) else it wither and die.

Normally the market adapts to a new entrant in Darwinian fashion, whereas: if demand doesn't expand, the victim of consumers shuffling their dollars around may be miles away. This succession — today's Class A space is tomorrow's Class B space until reinvestment rehabilitates it — occurs as product types and properties move up and down the food chain.

If the target market is not robust enough to accommodate a new entrant in a particular product category, its proponents will try to determine what share of demand it must attract to achieve required performance targets: the capture or penetration rate. Unfortunately, capture rates vary immensely based on product type and target markets: for most projects, developers who assume that they capture more than a small percentage of demand do so at their peril.

When a real estate product type is missing from the mix, it thwarts the market, which responds by spending earmarked dollars elsewhere, resulting in leakage. These dollars are available, often times for the following reasons:

- the area has been neglected by developers;
- the regulatory environment discourages commercial growth;
- the resident base has changed without an appropriate response from the commercial sector;
- the lending community holds old perceptions of the area, perhaps because only aged data is available;
- outside forces may influence the length of time to market unpredictably (as in "brownfield" sites or projects affected by pending legislative action), creating uncertainty about return and generating unacceptable opportunity costs.

Some of these forces appear to be at play in Bossier.

In addition to capturing existing demand, developers also try to induce demand, effectively creating a new product type that exploits the market's discontentment with the existing mix or with real estate solutions to a need or problem. New real estate products may require new

physical plants (automatic car washes) or merely represent a new tenant type (video rentals).

Feasibility Analysis

Once demand and supply are fully understood, they become key ingredients for a financial feasibility analysis that ultimately reveals whether a project will succeed from the point of view of various stakeholders, including investors, tenants, redevelopment and other public agencies, lenders, and the developer. Like market assessments, feasibility analyses are ongoing ventures, continuously refined as new information becomes available and assumptions are replaced with facts. Preparing a feasibility analysis requires an understanding of both construction costs and operating economics, along with informed strategy for the end game: will the developer own and operate the project in perpetuity, flip it after some number of years, or hire outside management? How will establishing multiple types of uses together affect performance? Are there synergies or dis-incentives that affect how the market resolves its demands? For communities establishing new town centers, these issues are as pertinent as they are for shopping center developers, as shown in the chart below:

Use Compatibility and Synergy

	Residential	Office	Hotel	Convenience Retail	Specialty Retail	Comparison Retail	Eating and Drinking	Theatres	Health Care
Residential		S	C	S	W	W	W	C	W
Office	S		S	W	W	W	S	N	W
Hotel	C	S		W	S	S	S	W	W
Convenience Retail	S	W	W		C	C	W	W	N
Specialty Retail	W	W	S	C		S	S	S	N
Comparison Retail	W	W	W	W	S		S	S	N
Eating/Drinking	W	S	S	W	S	S		S	N
Theatres	C	N	W	W	S	S	S		N
Health Care	W	W	W	N	W	W	N	N	

S: Strong W: Weak N: Neutral C: Conflict Potential

Factors relating demand to supportable square feet become crucial intelligence in preparing feasibility analyses. How many square feet do office workers require? What if it's a call center? The same notions apply to estimating operating expenses. How many rooms can a member of the housekeeping staff clean in a day? What does it cost to heat a building clad in titanium?

Meaning for Bossier

As Bossier reshapes its built environment and responds to changing market dynamics, it becomes crucial to quantify demand and determine what incentives, if any, are necessary to induce developers to respond to opportunities. These issues emerge whenever complex projects arise, particularly when they must overcome real and perceived barriers to success or when taxpayer dollars or strategic parcels are in play. Balancing those risks is commensurate reward: projects that can exert a transformative effect.

As a community, Bossier needs to articulate its desired future — expressed in terms of character as well as land use — and then determine whether sufficient demand exists or can be induced to achieve it. For transformative development, induced demand plays a very significant role: relying on untapped demand is the purview of small, incrementalist projects. Bossier has big dreams and should treat its aspirations carefully, even exercising restraint to realize its ambitions. In short, the Comprehensive Land Use and Development Master Plan creates a forum for addressing Bossier's ambitions: identifying uses first, and then designating appropriate sites through the process.

Key Development Issues and Opportunities

Market Support and Competitive Environment

To estimate the nature of new uses that can be supported in Bossier City, the WSA Consultant Team analyzed the breadth and depth of available market support. Market support entails capturing the interest and dollars associated with three principal markets:

- For retail, personal service and entertainment uses, local residents from the Bossier City-Parish Metropolitan Planning Commission (MPC) Planning Area encompassing Bossier City and parts of Bossier Parish comprise the immediate neighborhood, while the broader parish market and the Shreveport-Bossier region represent other important market components, generating loyal customers whose

repeat visits create profitability for many retailers. But while the 16,000 Air Force personnel stationed at Barksdale AFB collectively wield salaries totaling millions, most of their conventional retail needs are satisfied at on-base stores offering attractive discounts.

- Nearby employers provide another key market. In addition to spending associated with daily lunch time activities, given the proper mix of nearby uses, these workers can be induced to change their habits in ways that benefit local businesses, for example, from relying on shopping opportunities near home to developing new relationships with businesses near key employment centers. The more congestion on a region's roadways, the more likely workers will try to "wait out" the traffic fulfilling personal obligations near the workplace.
- Area companies themselves represent another market opportunity. Businesses purchase goods and services, supporting the retail, manufacturing and services sectors occupying, respectively, storefront, industrial and office space throughout the region.
- Bossier's casinos attract a steady stream of visitors to the community, although outside of Las Vegas the recreational gaming clientele proves very difficult to convert to traditional leisure traveler spending patterns.
- The visitor market encompasses people traveling on business as well as for leisure. Although the east side of the river lacks a significant resource for holding conventions and meetings, some group business events take place in Shreveport. People visiting companies based in Bossier Parish represent an additional small but significant market for area restaurateurs. While many of these people are relatively transient business travelers, the ability to draw leisure visitors from outside of the region is intrinsically tied to marketing efforts and the character (including retail offerings) of the downtown district.

For some perspective on these markets, consider that:

- Typical regional shopping malls draw customers from a distance of 10 to 15 miles, with residents typically shopping more than one mall on a continuous basis. Smaller downtown districts, as might be expected, draw customers from a smaller area and face stiff competition from the surrounding malls, which offer convenient shopping in one climate-controlled location with ample parking.
- Interest in revitalizing downtown Bossier entails examining the needs of the adjacent neighborhoods. For downtown Bossier, the close-in market — people living within one or two miles — represents an important segment. Although less affluent than those residents living further out, it still represents an important concentration of spending power motivated to do business with local enterprises. These residents are most likely to do day-to-day shopping in downtown due primarily to their close proximity. Consequently, these residents will have a significant impact on the success of any new project geared towards local markets, including small enterprises revitalized under local government auspices. Banks, hair salons, markets, and food/beverage purveyors all rely on local residents: note that the businesses clustered along Texas Street almost all serve the close-in market.
- Similarly, employees are important simply due to proximity. In a survey of downtown workers, the International Council of Shopping Centers found that workers spend about $1,300 annually on food and an additional $800 on retail purchases during the work day. Opportunity — the ability to use one's lunch hour to both eat and run a quick errand — increases with density and variety: simply put, when there's more stuff to buy closer together and located closer to them, then people spend more. Proximity pays.
- In the broader region there are several other small vibrant neighborhoods trading on their architectural character to attract shoppers. Downtown districts offer a unique environment that national retailers are increasingly appreciating. Having committed to their stockholders their intention to expand, some national retailers are trying to find pedestrian-oriented sites for expansion, especially when these environments comport with the brand. A good example is Williams Sonoma, with one third of its locations found in downtown business districts on walkable streets.

A Market Perspective on Area Demographic and Socio-Economic Characteristics

Chapter 2 of the Master Plan, entitled *Area Profile,* reviews key demographic and socio-economic characteristics, concentrating on the region served by the MPC. Businesses in this region, however, draw from a much larger market area that encompasses all of Bossier Parish along with the City of Shreveport, Caddo Parish and small distant towns that rely on the Bossier-Shreveport business cluster to fulfill their retail and service needs.

Almost 400,000 people make their homes in the Shreveport Metropolitan Statistical Area; half live in the City of Shreveport as illustrated in **Table 4.1, Population Data**.

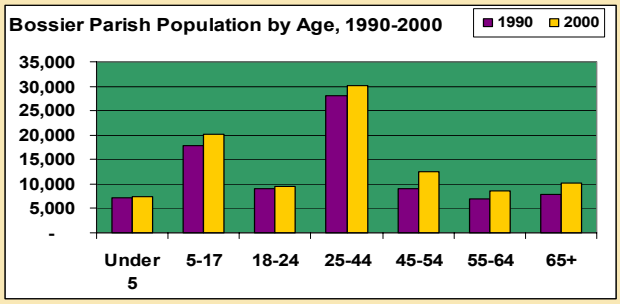
Table 4.1
Population Data

				Annual Percent Change		
	1980	1990	2000	1980-90	1990-2000	1980-2000
State of Louisiana	**4,206,262**	**4,175,166**	**4,468,976**	**-0.1%**	**0.7%**	**0.3%**
Shreveport MSA						
Bossier Parish	80,721	86,088	98,310	0.6%	1.3%	1.0%
Caddo Parish	252,358	248,253	252,161	-0.2%	0.2%	0.0%
Webster Parish	43,631	41,989	41,831	-0.4%	0.0%	-0.2%
Total	**376,710**	**376,330**	**392,302**	**0.0%**	**0.4%**	**0.2%**
Key Municipalities						
Bossier City	50,861	52,718	56,461	0.4%	0.7%	0.5%
Shreveport	205,776	198,528	200,145	-0.4%	0.1%	-0.1%

Source: Louisiana Population Data Center, U.S. Census Bureau

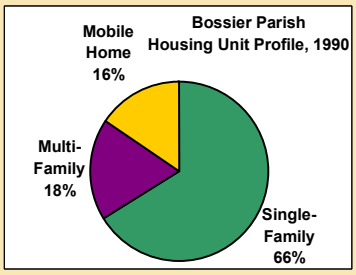
Figure 4.1, Bossier Parish Population by Age, 1990-2000, depicts Bossier Parish's nearly 100,000 residents by age cohort, revealing that nearly a third of the people are presently enjoying their peak spending years (24-44), fulfilling the needs of children and new homes.

Figure 4.1
Bossier Parish Population by Age, 1990-2000



As addressed in the Area Profile, the 2000 Census Housing Profile has yet to be released. Accordingly, 1990 figures reveal relatively high dependence on apartment and mobile homes as justified by Chapter 5 - Housing. The proportions, shown in **Figure 4.2, Bossier Parish Housing Unit Profile, 1990,** reveal the Parish's limited prosperity but also reflect Barksdale's influence as a source of young transient families earning military pay.

Figure 4.2
Bossier Parish Housing Unit Profile, 1990



Homeownership increased by a few percentage points between 1990 and 2000. At present, just under 70 percent of parish households hold deeds to their residences. Projections suggest that overall population figures will increase by about 13 percent over the coming two decades as revealed in **Table 4.2, Population Projections, Bossier Parish, 2000-2020**.

Table 4.2
Population Projections, Bossier Parish 2000-2020

Year	Under 5	5-19	20-34	35-64	65+	Total
2000	6,690	21,770	19,580	35,660	9,170	92,870
2005	6,700	21,610	19,940	37,510	9,840	95,600
2010	6,910	21,700	20,740	38,680	10,910	98,940
2015	7,160	21,730	21,620	38,920	12,690	102,120
2020	7,280	22,240	21,720	38,860	14,830	104,930
Change	590	470	2,140	3,200	5,660	12,060
Rate	8.8%	2.2%	10.9%	9.0%	61.7%	13.0%

Source: Louisiana Population Data Center (1997)

As shown in **Figure 4.3, Population Projections by Age Cohort, Bossier Parish, 2000-2020**, the Parish's gradual aging is offset by slower growth in younger cohorts.

Figure 4.3
Population Projections by Age Cohort, Bossier Parish, 2000-2020

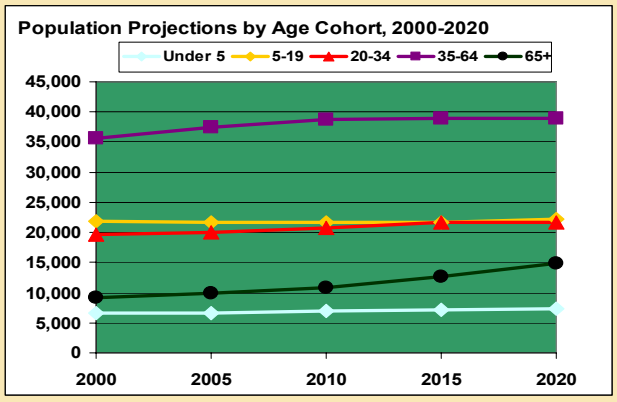


Table 4.3, Bossier MPC Region Employment by Industry compares employment by industry figures for Bossier Parish with those for the nation, the State of Louisiana as a whole, and the Shreveport MSA. The Location Quotients reveal sectors showing strength or weakness as compared to either state or national standards as follows: Bossier Parish, for example, has only 91 percent of the expected number of jobs in construction relative to the State of Louisiana, but 131 percent relative to the entire country. The most interesting findings revealed by this data relative to land use entail demand for office space: low performance in Finance, Insurance and Real Estate (FIRE), the key driver. However, this situation may reflect the classic chicken-egg conundrum: are there fewer office jobs because there is little office space or vice versa?

In recent years, volatility in the oil and gas industries has rippled through the economy, creating both good times and bad. The region relies on port-based industry and related distribution activities associated with its Interstate 20 location and access to the Dallas and Atlanta markets. General Motors' recent decision to invest some $800 million in manufacturing improvements bodes well for small suppliers.

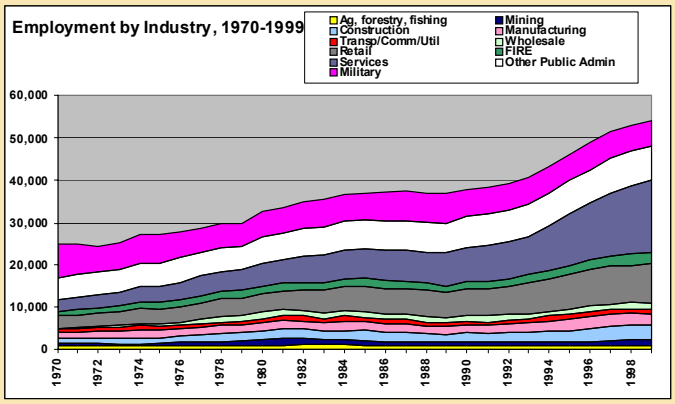
Table 4.3
Bossier MPC Region Employment by Industry, 2000

	All Industries	Mining	Construction	Manufacturing	Transportation Communication & Utilities	Wholesale Trade	Retail Trade	FIRE	Services	Public Admin.
United States Total (000s)										
Employment	**130,640**	543	6,698	18,469	7,019	7,024	23,307	7,560	39,340	20,680
% of National Total	**100.0%**	0.4%	5.1%	14.1%	5.4%	5.4%	17.8%	5.8%	30.1%	15.8%
State of Louisiana										
Employment	**1,847,620**	48,159	136,369	183,372	30,859	95,757	357,302	84,244	708,279	103,279
% of State Total	**100.0%**	2.6%	7.4%	9.9%	7.1%	5.2%	19.3%	4.6%	38.3%	5.6%
Bossier Parish										
Employment	**38,003**	1,159	2,549	2,910	1,222	1,186	8,395	1,208	17,067	2,307
% of County Total	**100.0%**	3.0%	6.7%	7.7%	3.2%	3.1%	22.1%	3.2%	44.9%	6.1%
US Location Quotient		7.34	1.31	0.54	0.60	0.58	1.24	0.55	1.49	0.38
LA Location Quotient		1.17	0.91	0.77	0.45	0.60	1.14	0.70	1.17	1.09
Shreveport MSA										
Bossier	**38,003**	1,159	2,549	2,910	1,222	1,186	8,395	1,208	17,067	2,307
Caddo	**118,613**	1,191	6,460	13,419	7,935	7,133	20,471	4,768	53,123	4,113
Webster	**12,265**	227	911	2,948	535	469	2,556	468	3,656	495
Total Employment	**168,881**	2,577	9,920	19,277	9,692	8,788	31,422	6,444	73,846	6,915
% of Region Total	**100.0%**	1.5%	5.9%	11.4%	5.7%	5.2%	18.6%	3.8%	43.7%	4.1%
US Location Quotient		3.67	1.15	0.81	1.07	0.97	1.04	0.66	1.45	0.26
LA Location Quotient		0.50	0.88	1.49	1.78	1.67	0.84	1.20	0.97	0.67

Source: U.S. Bureau of Labor Statistics; State of Louisiana Department of Labor; Economic Stewardship, Inc.

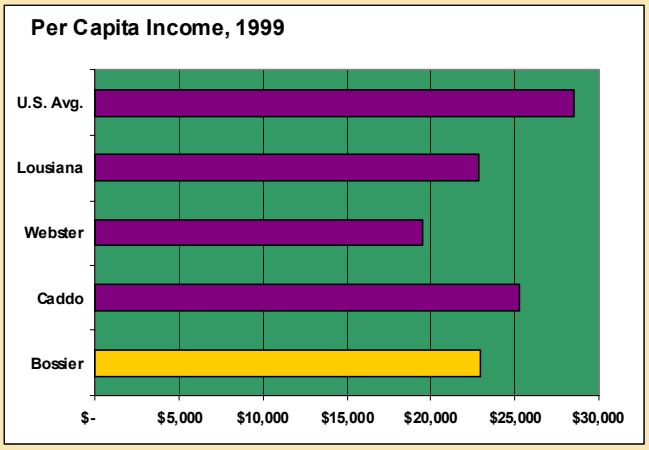
Figure 4.4, Employment by Industry, Bossier Parish, 1970-1999, shows how each sector has evolved over the past 30 years.

Figure 4.4
Employment by Industry, Bossier Parish, 1970-1999



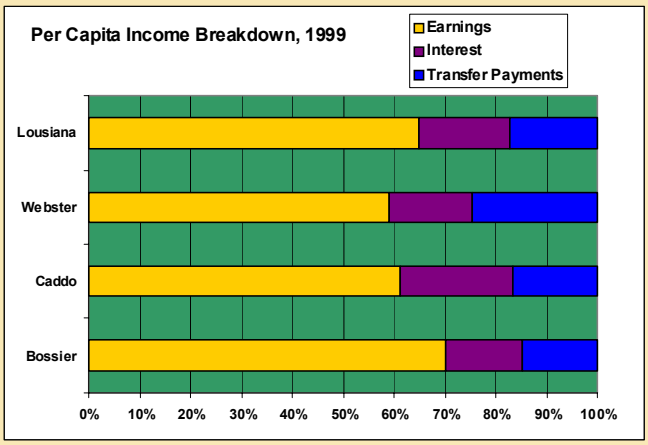
Bossier Parish's per capita income keeps pace with State of Louisiana figures, but falls short of the earnings experienced by people living in Shreveport and surrounding Caddo Parish, as shown in **Figure 4.5, Per Capita Income, Bossier Parish, 1999**.

Figure 4.5
Per Capita Income, Bossier Parish, 1999



Bossier Parish residents experienced income growth or decline during the 1990s by industry segment as shown in **Table 4.4, Personal Income by Major Source and Earnings by Industry, Bossier Parish, 1990-1999**. Note the impressive growth posted by a few key sectors (tinted yellow), including entertainment (casinos), metal fabrication and building materials. Many sectors (tinted peach), however, failed to keep pace with inflation. This hurts Bossier Parish residents more than other people living within the SMA. In terms of wealth, Bossier Parish

Figure 4.6
Per Capita Income Breakdown, Bossier Parish, 1999



people rely on income more than other sources such as interest: another socio-economic by-product of the relatively young population and the influence of Barksdale AFB personnel, as revealed by **Figure 4.6, Per Capita Income Breakdown, 1999**.

Table 4.4
Personal Income by Major Source and Earnings by Industry, Bossier Parish, 1990-1999 (Thousands of Dollars)

Category	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Annual % Change
Total Personal Income	$1,288,985	$1,360,138	$1,478,204	$1,540,898	$1,669,853	$1,802,193	$1,845,502	$1,924,024	$2,028,505	$2,143,668	5.8%
Population (number of persons)	85,864	85,912	86,184	87,584	88,950	90,421	91,937	93,476	92,334	93,374	0.9%
Per capita personal income (dollars)	$15,012	$15,832	$17,152	$17,593	$18,773	$19,931	$20,074	$20,583	$21,969	$22,958	4.8%
	$805,165	$842,407	$882,861	$925,440	$996,230	$1,113,465	$1,209,746	$1,261,817	$1,352,451	$1,403,626	
Ag. services, forestry, fishing, & other	**$4,339**	**$4,897**	**$5,122**	**$6,073**	**$5,955**	**$6,110**	**$6,724**	**$7,432**	**$8,760**	**$10,289**	**10.1%**
Mining	**$22,349**	**$22,878**	**$20,516**	**$20,681**	**$21,450**	**$22,257**	**$30,102**	**$36,380**	**$46,854**	**$40,739**	**6.9%**
Construction	**$44,706**	**$39,321**	**$47,487**	**$53,477**	**$60,594**	**$62,887**	**$70,751**	**$80,030**	**$85,488**	**$86,031**	**7.5%**
Manufacturing	**$52,822**	**$51,194**	**$60,164**	**$60,740**	**$68,517**	**$83,519**	**$84,884**	**$83,049**	**$86,105**	**$87,035**	**5.7%**
Durable goods	$25,876	$23,237	$31,232	$34,635	$41,271	$44,955	$46,750	$47,562	$52,603	$54,991	8.7%
Lumber and wood products	$6,044	$7,284	$10,429	$11,123	$11,621	$12,017	$10,463	$9,516	$10,299	$10,138	5.9%
Stone, clay, and glass products	$3,623	$3,389	$3,170	$3,133	$3,778	$4,481	$4,512	$4,479	$6,098	$5,964	5.7%
Primary metal industries	$6,881	$6,760	$8,639	$10,560	$10,890	$10,560	$13,590	$14,137	$14,241	$15,570	9.5%
Fabricated metal products	$1,440	$1,368	$5,486	$5,634	$6,277	$6,990	$7,490	$7,592	$7,883	$12,040	26.6%
Industrial machinery and equipment	(D)	$1,548	$831	$1,033	$1,370	$1,700	$2,014	$2,730	$2,394	$2,472	6.0%
Miscellaneous manufacturing industries	$1,387	$1,111	$1,182	$1,342	$1,430	$1,773	$1,999	$2,442	$2,171	$1,940	3.8%
Nondurable goods	$26,946	$27,957	$28,932	$26,105	$27,246	$38,564	$38,134	$35,487	$33,502	$32,044	1.9%
Apparel and other textile products	$2,431	$2,627	$4,091	$4,100	$3,766	$3,966	$4,167	$3,965	$4,218	$3,791	5.1%
Printing and publishing	$4,616	$5,875	$5,475	$6,227	$6,595	$11,858	$10,082	$7,689	$6,885	$6,895	4.6%
Chemicals and allied products	$8,038	$6,002	$4,336	$1,226	$883	$1,948	$996	$764	(D)	(D)	-28.6%
Petroleum and coal products	$3,362	$4,150	$4,763	$5,611	$6,223	$7,655	$8,952	$9,080	(D)	(D)	15.3%
Rubber and misc. plastics products	$3,150	$3,751	(D)	(D)	(D)	(D)	(D)	(D)	(D)	$2,663	-1.8%
Transportation and public utilities	**$20,259**	**$19,523**	**$21,749**	**$22,934**	**$30,338**	**$33,678**	**$35,417**	**$43,891**	**$43,243**	**$49,935**	**10.5%**
Railroad transportation	$533	$626	$642	$576	$672	$737	$731	$727	$818	$817	4.9%
Trucking and warehousing	$12,336	$12,392	$12,007	$12,061	$15,460	$17,202	$17,297	$24,247	$26,212	$33,235	11.6%
Transportation services	$474	$570	$452	$389	$2,007	$1,119	$779	$1,389	$1,301	$1,303	11.9%
Communications	$1,736	(D)	(D)	$2,744	$3,461	$4,430	$4,841	$3,716	$3,519	$3,515	8.2%
Electric, gas, and sanitary services	$4,386	$4,664	$5,897	$6,312	$7,985	$7,765	$8,906	$10,564	$8,195	$7,634	6.4%
Wholesale trade	**$28,133**	**$28,994**	**$31,421**	**$28,277**	**$29,586**	**$31,968**	**$33,740**	**$35,582**	**$41,686**	**$42,208**	**4.6%**
Retail trade	**$79,117**	**$84,618**	**$91,289**	**$101,760**	**$110,511**	**$119,168**	**$129,497**	**$135,972**	**$144,869**	**$153,257**	**7.6%**
Building materials and garden equipment	$2,942	$3,362	$4,019	$5,056	$6,304	$7,862	$8,554	$10,014	$14,861	$14,941	19.8%
General merchandise stores	$10,680	$11,025	$11,782	$11,985	$12,462	$12,781	$16,267	$19,004	$20,556	$21,812	8.3%
Food stores	$12,027	$12,097	$14,809	$17,341	$17,907	$18,468	$18,826	$18,587	$16,873	$17,907	4.5%
Automotive dealers and service stations	$11,817	$12,650	$12,608	$14,001	$17,290	$19,121	$20,223	$21,195	$23,600	$24,361	8.4%
Apparel and accessory stores	$3,422	$4,233	$4,365	$4,786	$4,504	$5,059	$5,377	$5,641	$5,517	$5,722	5.9%
Home furniture and furnishings stores	$2,330	$2,504	$2,833	$4,129	$4,695	$5,251	$5,618	$5,769	$6,564	$6,509	12.1%
Eating and drinking places	$21,821	$24,340	$25,289	$28,862	$30,877	$32,748	$35,204	$36,620	$36,996	$41,229	7.3%
Miscellaneous retail	$14,078	$14,407	$15,584	$15,600	$16,472	$17,878	$19,428	$19,142	$19,902	$20,776	4.4%
Finance, insurance, and real estate	**$22,151**	**$24,035**	**$28,369**	**$29,391**	**$31,875**	**$35,139**	**$37,106**	**$39,154**	**$41,385**	**$44,197**	**8.0%**
Services	**$116,755**	**$125,166**	**$135,117**	**$141,928**	**$197,850**	**$242,359**	**$267,707**	**$279,113**	**$321,556**	**$351,927**	**13.0%**
Hotels and other lodging places	$6,232	$6,515	$6,678	$6,899	$9,781	$10,906	$12,621	$11,300	$13,635	$14,933	10.2%
Personal services	$9,792	$12,776	$12,104	$12,709	$11,686	$13,802	$14,111	$12,065	$13,296	$13,718	3.8%
Private households	$1,872	$1,815	$2,009	$2,103	$2,186	$2,328	$2,347	$2,342	$2,682	$2,177	1.7%
Business services	$16,073	$18,336	$18,795	$14,375	$17,441	$17,012	$18,893	$15,558	$16,677	$17,642	1.0%
Auto repair, services, and parking	$7,126	$6,858	$7,267	$7,207	$9,405	$10,161	$10,236	$9,608	$12,011	$12,859	6.8%
Miscellaneous repair services	$3,818	$7,101	$8,813	$9,344	$4,692	$5,140	$5,109	$4,385	$4,258	$5,064	3.2%
Amusement and recreation services	(D)	(D)	(D)	$15,614	$58,434	$97,028	$108,950	$121,986	$149,468	$159,251	47.3%
Motion pictures	$446	$580	$632	$685	$808	$637	$766	$765	$796	$751	6.0%
Health services	$32,312	$34,100	$40,347	$45,510	$50,934	$52,440	$61,868	$67,266	$69,043	$80,728	10.7%
Legal services	$2,965	$2,463	$2,673	$3,271	$4,180	$3,916	$4,243	$4,386	$5,087	$4,764	5.4%
Educational services	$2,811	$2,727	$973	$1,176	$3,451	$3,004	$3,479	$4,166	$4,867	$3,663	3.0%
Social services	$2,821	$2,759	$3,067	$5,097	$5,224	$5,589	$5,655	$5,912	$7,062	$7,919	12.2%
Engineering and management services	$10,132	$8,498	$8,621	$9,163	$9,513	$9,557	$8,760	$9,038	$12,207	$16,887	5.8%
Miscellaneous services	$946	$1,080	$967	$1,245	$1,984	$2,660	$1,915	$1,195	(D)	$1,259	3.2%
Government and government enterprises	**$414,534**	**$441,781**	**$441,627**	**$460,179**	**$439,554**	**$476,380**	**$513,818**	**$521,214**	**$532,505**	**$538,008**	**2.9%**
Federal, civilian	$77,368	$80,404	$85,658	$92,954	$68,598	$70,847	$76,056	$79,389	$80,636	$81,487	0.6%
Military	$233,956	$246,876	$238,123	$243,710	$239,199	$258,693	$281,247	$277,365	$273,377	$277,982	1.9%
State and local	$103,210	$114,501	$117,846	$123,515	$131,757	$146,840	$156,515	$164,460	$178,492	$178,539	6.3%

Source: U.S. Bureau of Economic Analysis; Economic Stewardship, Inc.

KEY:	
Grew > 10%	x.x%
Grew < 3% or Declined	x.x%

Figure 4.7, Per Capita Income by Industry, Bossier Parish, 1990-1999, presents one last way of looking at the contribution each industry makes to regional wealth. The decreasing economic significance of Barksdale AFB and the increasing contribution of the services sector is made plain (although recent events may be reversing this trend).

As shown in **Figure 4.8, Unemployment Rate, 1990-2000**, the region's unemployment trends closely follow one another, but not those experienced by the United States as a whole. The 1990s prosperity was short-lived in the Shreveport-Bossier MSA, and the recession came early .

Figure 4.7
Per Capita Income by Industry, Bossier Parish, 1990-1999

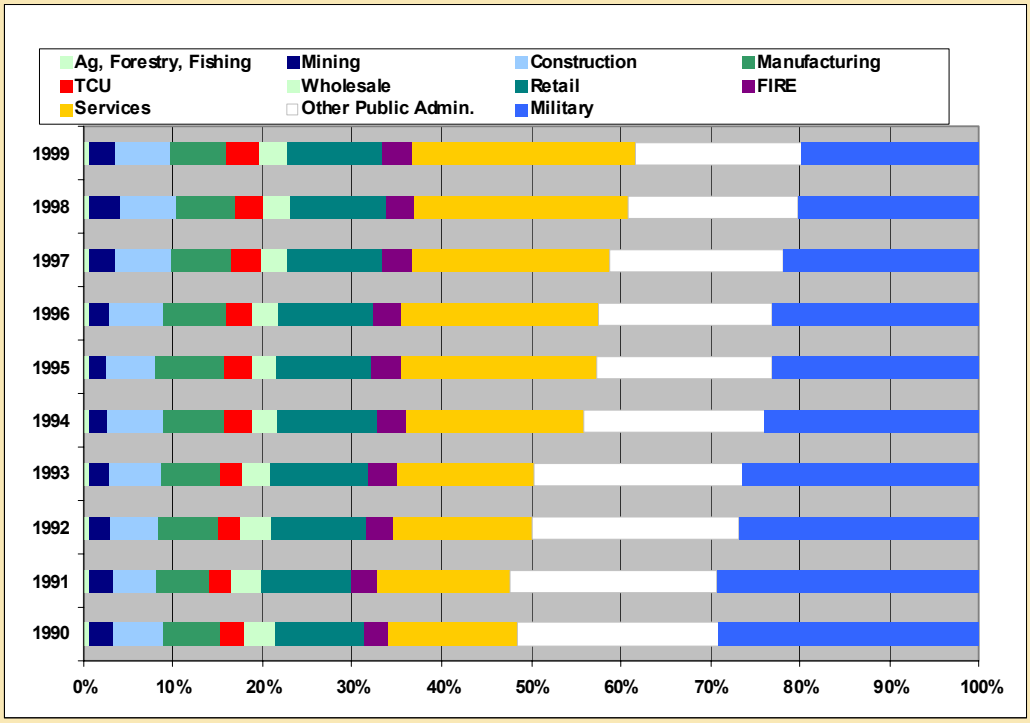


Figure 4.8
Unemployment Rate, 1990-2000

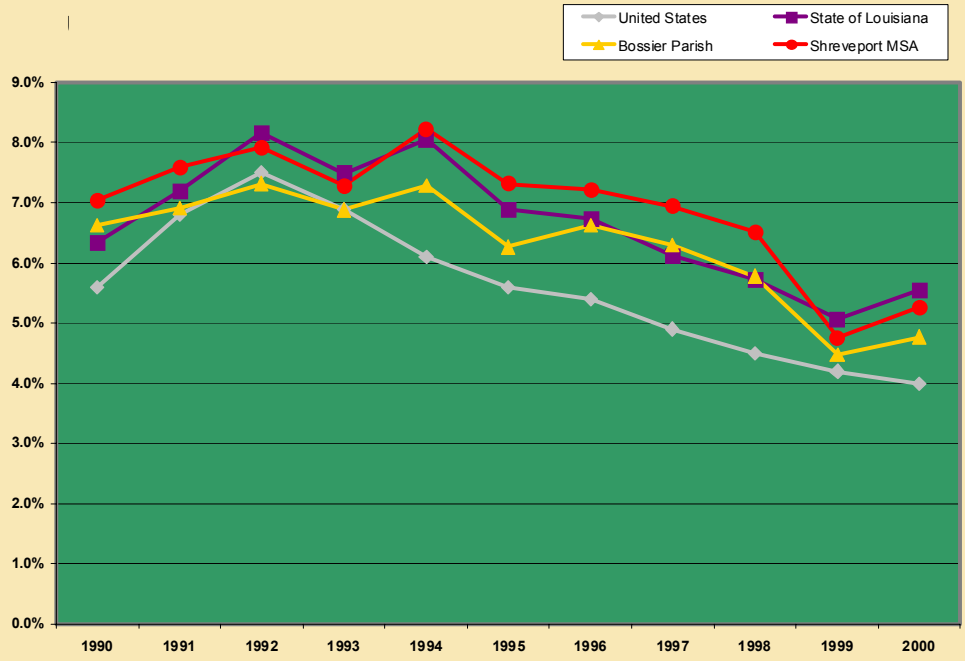
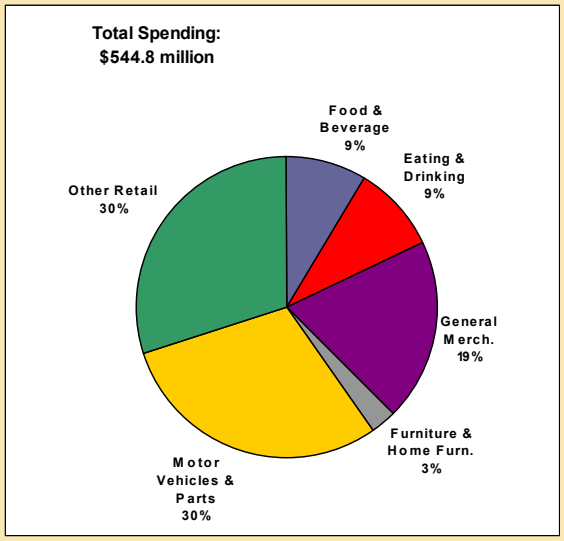


Figure 4.9
Annual Retail Spending by Category, Bossier Parish



Retail

Figure 4.9 – Annual Retail Spending by Category and **Tables 4.5 – Retail Sales** and **4.6 – Retail Sales Comparison** show how people spent some of their earnings in the Bossier MPC region.

Table 4.5
Retail Sales

	State Total	Bossier	Caddo	Webster
2000				
Food & Beverage	$6,383,478	$ 110,051	$340,290	$48,450
Eating & Drinking	4,551,747	93,008	245,687	19,522
General Merch.	7,352,153	238,919	513,128	38,936
Furniture & Home Furn.	1,719,906	33,565	87,078	18,760
Motor Vehicles & Parts	13,505,384	360,047	885,872	152,811
Other Retail	14,434,343	331,163	899,156	77,854
Total	**$47,947,011**	**$1,166,753**	**$2,971,211**	**$356,333**
2001				
Food & Beverage	$ 6,519,254	$107,632	$340,839	$43,148
Eating & Drinking	4,874,426	119,125	265,889	24,507
General Merch.	7,626,426	243,727	572,057	39,012
Furniture & Home Furn.	1,704,572	34,680	59,424	18,478
Motor Vehicles & Parts	13,611,812	372,949	846,468	54,585
Other Retail	14,581,633	377,040	968,962	97,988
Total	**$48,918,123**	**$1,255,153**	**$3,053,639**	**$377,718**

Source: Sales & Marketing Management Survey of Buying Power, ESI

Table 4.6
Retail Sales Comparison, 2001

	State Total	Bossier	Caddo	Webster
Population	4,487,700	99,200	252,500	41,800
Households	1,642,400	36,300	98,600	16,400
Effective Buying Income				
Avg. Per Capita	$14,889	$17,151	$15,727	$11,609
Avg. Per Household	$40,682	$46,869	$40,274	$29,588
Annual Sales per Capita, 2001				
Food & Beverage	$1,453	$1,085	$1,350	$1,032
Eating & Drinking	1,086	1,201	1,053	586
General Merch.	1,699	2,457	2,266	933
Furniture & Home Furn.	380	350	235	442
Motor Vehicles & Parts	3,033	3,760	3,352	3,698
Other Retail	3,249	3,801	3,837	2,344
Total	**$10,900**	**$12,653**	**$12,094**	**$9,036**
Comparison Factors				
Parish to State Spending	1.00	1.16	1.11	0.83
Spending to EBI	0.73	0.74	0.77	0.78
Annual Sales per Household, 2001				
Food & Beverage	$3,969	$2,965	$3,457	$2,631
Eating & Drinking	2,968	3,282	2,697	1,494
General Merch.	4,643	6,714	5,802	2,379
Furniture & Home Furn.	1,038	955	603	1,127
Motor Vehicles & Parts	8,288	10,274	8,585	9,426
Other Retail	8,878	10,387	9,827	5,975
Total	**$29,785**	**$34,577**	**$30,970**	**$23,032**
Comparison Factors				
Parish to State Spending	1.00	1.16	1.04	0.77
Spending to EBI	0.73	0.74	0.77	0.78

Source: Sales & Marketing Management Survey of Buying Power; Economic Stewardship, Inc.

On a per capita or household basis, Bossier Parish holds its own, posting sales that match up very respectably with adjacent Caddo Parish, home of many of the region's wealthiest families. Strong automobile sales are part of the story, as is the Heart of Bossier shopping center complex, the regional visitor market, and Barksdale AFB. While few national retailers currently do business in the Bossier MPC area, those in place appear to be patronized by area residents.

Table 4.7, Revenues and Payroll Generated by Tourism quantifies the economic impacts associated with tourism in Bossier Parish and nearby jurisdictions. Note that the region delivers approximately 10 percent of Louisiana's entire tourism sector revenue, a substantial contribution.

Table 4.7
Revenues and Payroll Generated by Tourism ($000s)

	1998	1999	2000
Revenues			
Louisiana	*$7,169,100*	*$7,681,730*	*$8,177,710*
Bossier	$297,320	$313,600	$332,290
Caddo	373,890	398,290	427,910
Webster	26,690	28,150	31,950
Region Total	**$697,900**	**$740,040**	**$792,150**
% of State Total	**9.7%**	**9.6%**	**9.7%**
Payroll			
Louisiana	*$1,671,000*	*$1,736,900*	*$1,868,430*
Bossier	$88,000	$90,870	$97,250
Caddo	86,800	89,160	96,740
Webster	3,310	3,360	3,860
Region Total	**$178,110**	**$183,390**	**$197,850**
% of State Total	**10.7%**	**10.6%**	**10.6%**
Employment			
Louisiana	*106,800*	*109,930*	*113,810*
Bossier	5,250	5,400	5,570
Caddo	4,620	4,750	4,960
Webster	210	210	230
Region Total	**10,080**	**10,360**	**10,760**
% of State Total	**9.4%**	**9.4%**	**9.5%**

Source: Travel Industry Association of America, The Economic Impact of Travel on Louisiana Parishes, 2000

Tourism creates about 5,600 jobs in the parish, about 600 more than realized in Caddo Parish across the river. Casino patrons driving in from Dallas and elsewhere generate significant overnight stays and concomitant revenue, but the region's corporations also generate substantial business travel. Barksdale AFB generates both business and leisure travel, particularly since military personnel may not have sufficient leave time for visiting friends, and relatives are often the largest visitor sub-market.

Available Markets

Although it is convenient to think of available resident markets as being readily identifiable and consistent, two factors greatly influence their breadth and depth. First, human preferences and behavior — expressed in willingness to invest time or money to travel — determines from how large an area a given project can expect to draw. At the extreme ends of the spectrum, urban dwellers travel for hours to experience certain types of entertainment, such as theme parks, "must see" historical attractions and casinos, but would consider it a hardship to drive more than 15 minutes to a grocery store.

While some of this reticence relates to scarcity — convenience stores may be found on every corner but there's only one Grand Canyon — for commercial enterprises, operational economics and willingness to invest travel time are forces that, taken together, do much to establish the character of our built environment and leisure time. For example, just as a regional mall must draw from farther afield to capture enough revenue to support its stores, at the same time people are willing to drive further to get there because it offers more choice.

Choice also plays a key role, particularly when there are equivalent goods (competition) available closer to the market. Marketeers devote immense resources to determining how to get people to drive past one option in order to get to the preferred choice, competing on quality, price, brand panache, and other factors to motivate the change in behavior. For example, most gas stations have grafted on a convenience store, as operators discovered that they could make more money and distinguish themselves from the competition by offering customers the chance to fulfill two needs at once, for a small amount of capital and a minimal increase in operating costs. It's "worth it" to drive a few blocks farther to be able to get coffee while filling the tank.

To arrive at market demand, the WSA Consultant Team first determined the total pool of available dollars attributable to the various market segments, assuming uses corresponding to an array of intensity and typical draw as shown in **Table 4.8, Available Market Segments by Real Estate Product Type**.

Table 4.8
Available Market Segments by Real Estate Product Type

	Neighborhood Serving Uses	Community Serving Uses	Regional Serving Uses
Residents			
Bossier City	yes	yes	yes
Bossier Parish	no	yes	yes
Rest of MSA	no	no	yes
Employees			
Bossier Parish	no	yes	yes
Visitors			
Casino	no	yes	yes
Other Bossier Overnight	no	yes	yes
Others Visiting SMA	no	yes	yes

The markets were then broken down into primary and secondary markets, with the primary market representing those individuals most likely to frequent commercial establishments within the Bossier MPC area. Each segment and related land uses are discussed in turn on the pages that follow.

Markets for Retail Development

Three market segments offer the most promise for generating new economic activity in the Bossier MPC area:

- People living within Bossier City, an easy walk or a quick car ride to uses that serve basic neighborhood functions and provide every-day goods and services, such as a grocery store, dry cleaner, photo shop, craft shop(s), drug store, deli/pizza, coffee/donuts, bank branch, shoe repair, etc. Some of these establishments currently do business along Texas Street and the other arterials, but many are presently unavailable to area residents.
- People living within Bossier Parish currently travel outside of the city for many community-scale goods and services. Community-serving enterprises begin to encompass larger restaurants and national chains specializing in a particular product line or service, e.g., books, music, sporting goods, toys, apparel, fitness club, beauty supplies, art, etc. Restaurants at this level might include establishments working simple themes, for example, sports bars, brew pubs and specific cuisines.
- People living within the Shreveport-Bossier MSA will make the trek into Bossier (and across the river, in many cases) for experiences and ambiance that are different from what is available elsewhere: destination restaurants (table cloth fine dining for special occasions), nightclubs featuring name performers, museums, comedy clubs, movie theatres distinguished from vanilla box suburban multiplexes, specialized/ designer apparel, fine art, etc. Often it is as much the ambiance as the offerings that make regional destinations so compelling.

Right now it is apparent that Bossier is drawing extensively from the regional market to support its retail space. If the space is, on average, performing at $250 per square foot, the retail sales figures suggest square footage throughout Bossier Parish totaling just over 3 million square feet excluding car sales. If solely supported by Bossier Parish residents, this level of retail sales would imply consuming over 50 percent of their gross income, clearly an implausible scenario. Bossier's dilemma is not lack of retail space: it is the range of products available particularly given the increased wealth injected into the Bossier MPC area as developers build housing geared to upper end markets. At the same time, Bossier hopes to revitalize its waterfront area with a mix of uses intended to attract regional and visitor dollars as well as resident spending.

This strategy entails inducing additional demand and, moreover, staunching leakage to Caddo and even Dallas: wherever area residents shop when they could be purchasing goods and services in the Bossier MPC area. Although the overall figures are very healthy, the gap in the retail menu holds potential to serve as a catalyst for revitalization.

How much money is available for potential new uses located within the core of the Bossier MPC area? Using a conservative estimate of income (the bottom of the range including the median figure) and then applying a factor describing the percentage of total household income available for discretionary goods ("disposable income") derived by the Bureau of Economic Analysis yields the total pool of funds available from the resident markets, as shown in **Table 4.9, Disposable Income**:

Table 4.9
Disposable Income

	Bossier City	Bossier Parish	Rest of MSA
Population	56,461	98,310	237,531
Per Capita Income	$22,958	$22,958	$25,278
Area Income	$1,296,231,638	$2,257,000,980	$6,004,308,618
Disposable	21.0%	21.0%	21.0%
Available	$272,208,644	$473,970,206	$1,260,904,810

Approximately 24,000 employees work in the Bossier City core, including people affiliated with Barksdale AFB. Downtown employees spend an average of about $2,100 annually on food and other retail items during the workday according to research conducted by the International Council of Shopping Centers. At these spending rates, Bossier City employees generate about $50.4 million in annual retail spending and a whopping $31.2 million on food and beverages. However, these figures are greatly influenced by opportunity and ability: the higher the income of the workforce and the larger the array of retail shopping opportunities, the more spending results.

The Bossier MPC area has a nearby population of affluent employees available for capture — the downtown Shreveport crowd — who, according to anecdotal evidence, are not spending on the east side of the Red River. Converting these employees to spenders represents a significant opportunity. In the same vein, inducing visitors to Shreveport to cross the Red River and sample Bossier's offerings would dramatically increase potential spending. Making it easy for gamers to get around the region and convincing visiting friends and relatives that Bossier offers an experience worth the trip could all yield significant additional spending. All in all, tourists and employees represent a significant potential market as shown in **Table 4.10, Income by Market Area Available for Capture**, which assumes that 10 percent of all visitor spending is available for discretionary goods.

Table 4.10
Income by Market Area Available for Capture

	Bossier City	Bossier Parish	Rest of MSA
Employees	24,000	14,003	130,878
Available	$50,400,000	$29,406,300	$274,843,800
Tourists	$26,583,200	$6,645,800	$45,986,000

Table 4.11
Available Spending by Real Estate Product Type

	Neighborhood Serving Uses	Community Serving Uses	Regional Serving Uses
Residents			
Bossier City	$272,208,644	$272,208,644	$272,208,644
Bossier Parish	$	$473,970,206	$473,970,206
Rest of MSA	$	$	$1,260,904,810
Employees	$	$50,400,000	$50,400,000
Visitors	$	$26,583,200	$26,583,200
Total	**$272,208,644**	**$823,162,050**	**$2,084,066,860**

Table 4.11, Available Spending by Real Estate Product Type summarizes spending potentials by market segment as detailed in the preceding sections.

Translating this spending, along with that associated with regional residents, yields the supportable retail square footages arrayed in **Table 4.12, Supportable Square Feet by Real Estate Product Type**. This analysis assumes small changes in regional spending patterns that total about 15 percent of the local market decreasing to a scant few percent of the regional market. The result: a range of supportable space totaling approximately 540,000 square feet and encompassing uses corresponding to the three principal varieties of retail space. That development program suggests enough intensity to be competitive while not presenting an insurmountable threat to the rest of the Bossier retail sector.

The graphic displayed in **Figure 4.10, Bossier MPC Core in the Context of the Region Market Segments and Geographic Orientation,** provides food for thought about this prospect. It shows how scale changes with market reach, drawing a relationship between draw, risk and reward. It notes several uses which demonstrate how straddling market categories might make sense for the core areas of the Bossier MPC region. Finally, it looks at how expanding the size of available markets by increasing the supply of housing or adding square footage of new employment increases the dollars available to support the project.

Table 4.12
Supportable Square Feet by Real Estate Product Type

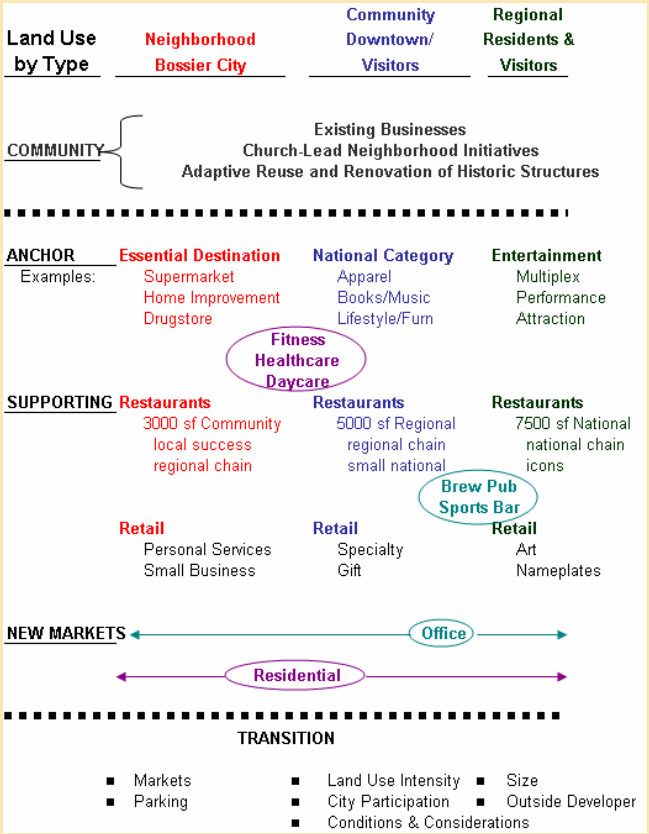
Neighborhood Serving Uses	Available Spending	Capture Rate	Resulting Sales
Residents			
Bossier City	$272,208,644	3.0%	$8,166,259
Bossier Parish	$		$
Rest of MSA	$		$
Employees	$		$
Visitors	$		$
TOTAL:	$272,208,644		$8,166,259
Square Feet Supportable at Alternative Productivity Levels:		$225	$36,294
		$250	32,665
		$275	29,695

Community Serving Uses	Available Spending	Capture Rate	Resulting Sales
Residents			
Bossier City	$272,208,644	5.0%	$13,610,432
Bossier Parish	$473,970,206	3.0%	$14,219,106
Rest of MSA	$		$
Employees	$ 50,400,000	15.0%	$7,560,000
Visitors	$26,583,200	25.0%	$ 6,645,800
TOTAL:	$823,162,050		$42,035,338
Square Feet Supportable at Alternative Productivity Levels:		$225	186,824
		$250	168,141
		$275	152,856

Regional Serving Uses	Available Spending	Capture Rate	Resulting Sales
Residents			
Bossier City	$272,208,644	7.0%	$19,054,605
Bossier Parish	$473,970,206	5.0%	$23,698,510
Rest of MSA	$1,260,904,810	2.5%	$ 31,522,620
Employees	$50,400,000	5.0%	$2,520,000
Visitors	$26,583,200	25.0%	$6,645,800
TOTAL:	$2,084,066,860		$ 83,441,536
Square Feet Supportable at Alternative Productivity Levels:		$225	370,851
		$250	333,766
		$275	303,424
Total Square Footage Supportable:		**485,975**	**593,969**

Within the Bossier MPC area, however, remain physical problems that contribute to the difficulty in realizing the available economic potentials. In particular, the city's historic land use patterns have created parcels that are not conducive to many modern projects, often because they lack either enough frontage or depth to accommodate traffic including deliveries.

Figure 4.10
Bossier MPC Core in the Context of the Region
Market Segments and Geographic Orientation



Retail and entertainment uses contribute to the vitality of any downtown neighborhood and, for Bossier City, harken back to its heritage as one of the region's most vibrant neighborhoods. The core of the Bossier MPC area offers the capacity to attract a modest proportion of regional expenditures for eating, drinking and specialty retail establishments and the potential to establish an entertainment district that takes advantage of both waterfront opportunities as well as the traditional retail corridors. These clusters rely on market support that draws

from both resident and visitor markets: they offer an experience that is, by definition, a fun and/or special occasion … and people have more fun, especially on weekdays, when they are away from home whether for business or leisure.

Entertainment districts depend upon a "critical mass" of activities and options: people want abundant choice so they can move from place to place until they find the ambiance that suits their needs. A festive atmosphere enhances the experience for convention event attendees as well. Multiple bars, restaurants and entertainment opportunities along with public open spaces and related amenities play a strong role. Similarly, a regular series of programmed events that allow for spontaneous interaction with other people in an organized, safe setting — street festivals, outdoor concerts, public markets, etc. — deliver new people to urban neighborhoods.

An entertainment district becomes a destination when it offers a range of restaurants, bars, nightclubs, and other entertainment opportunities in a concentrated area to maximize consumer choice. Restaurants and bars often complement cinemas, live performance venues and retail shops. While the magnitude of these uses should be consistent with both the available market support and the physical capacity of sites in play, it is critical to maintain (in part through renovation) what remains of the character of Bossier's oldest neighborhood to solidify its capacity to draw. As is available in Bossier, successful districts often offer a physical amenity, such as waterfront access or historic fabric, which distinguishes them from other neighborhoods:

- An entertainment district requires a significant amount of space developed at a relatively high cost per square foot. While entertainment districts in larger markets, whether historic (as in New Orleans) or new (such as Church Street Station in Orlando), can be huge, smaller areas are also viable. In Richmond, Virginia, for example, with Shokoe Bottom, the Warehouse District and other such neighborhoods already fill this role to some extent.
- Outdoor entertainment can integrate an entertainment district into the downtown environment. Street festivals, outdoor concerts, artists markets, and other special events all add life to downtown streets and bring people to the neighborhood who might otherwise not make the trip. If reluctant visitors discover other downtown amenities like restaurants or entertainment, they may be more likely to return. Similarly, downtown employees attracted to these events will rediscover a reason to go to central Bossier and how close it is to their workplace.
- Downtown cinemas, which are not an urban entertainment district when built on a stand-alone basis, represent excellent catalysts for downtown redevelopment. If a downtown theatre can offer a superior or distinctive product (e.g., stadium seating, expanded food service, cutting edge sound, etc.) it will bring people in from outlying locations. Moviegoers looking to round out their evening supply a market for other destinations like restaurants, nightclubs and bookstores.

Right now there are few viable stores, restaurants or entertainment venues in Bossier that draw from a market beyond the immediate area. Entertainment could play a key role in establishing the Bossier MPC area as a regional destination. Although many larger markets support substantial districts (Second Avenue in Nashville, Beal Street in Memphis, the French Quarter in New Orleans), this scale would affect Bossier's neighborhoods substantially in a way that might be deemed undesirable by residents. However, one can envision a smaller concentration of retail, restaurant, entertainment and public open space forming the nucleus of a destination district that attracts both residents and regional visitors.

Quantifying supportable square footage entails identifying the prospective project's ability to attract dollars given the characteristics of the available market support and the nature of the competition. Although the analysis on the preceding pages does not specify whether a single project or multiple individual initiatives are envisioned, the two are not interchangeable. To succeed, commercial ventures must achieve a viable productivity level, usually expressed as dollars per square foot (psf). For some perspective, non-anchor retail stores in typical regional malls usually generate sales on the order of at least $250 psf and usually more. Street retail varies based on location, synergy with neighboring enterprises, access, streetscape quality, and other factors that reflect the risks and rewards of choosing an environment without centralized management. To the extent that Bossier decides to encourage government action to reduce risk

and create incentives, the payoff will come in increased viability and shorter time to market.

New Potential Markets: Residential and Employment

Left unmentioned above is the opportunity to reinforce the existing market by increasing Bossier's ability to compete for jobs-producing uses and residents searching for new housing prospects.

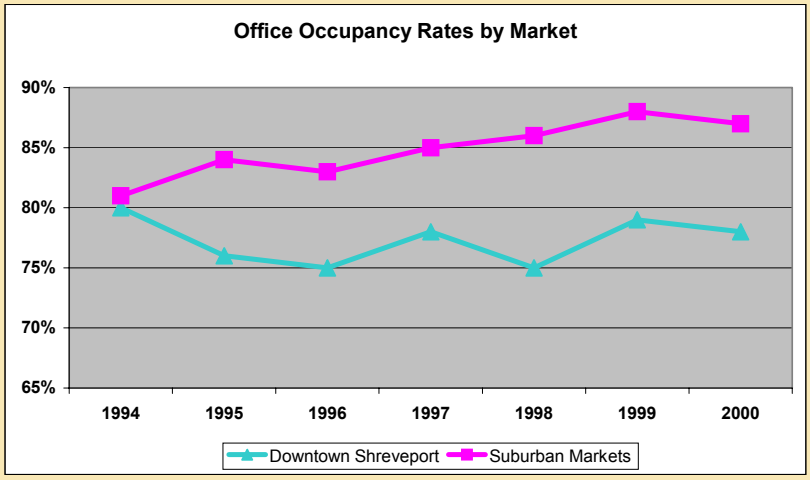
Office demand has always been weaker on Bossier's side of the Red River than in downtown Shreveport, which has become the region's business and financial hub. Additional office-based employment uses would provide a substantial boost to Bossier by increasing the number of potential patrons for area businesses and sources of demand for housing in Bossier's core. As shown in **Figure 4.11, Office Occupancy Rates by Market**, vacancy rates for office space within the region are substantial.

Figure 4.11
Office Occupancy Rates by Market

Regional Historic Office Characteristics

Occupancy Rates	1994	1995	1996	1997	1998	1999	2000
Downtown Shreveport	80%	76%	75%	78%	75%	79%	78%
Suburban Markets	81%	84%	83%	85%	86%	88%	87%

Source: U.L. Coleman



Although the current vacancy rates, at about 22 percent, are significant, they are not out of line with the experience in many cities across the country today. However, it is also apparent that demand has yet to outstrip supply and that prospects for new office development without a pre-signed tenant are unlikely. If a new corporate headquarters for an existing company in the region (or one from farther afield) could be attracted to the Bossier MPC area, it would provide a tremendously positive statement about the east side of the Red River. The indirect benefits — improved image and credibility — would be substantial. Attracting such a use, however, is nearly always a formidable task and would probably require additional economic incentives.

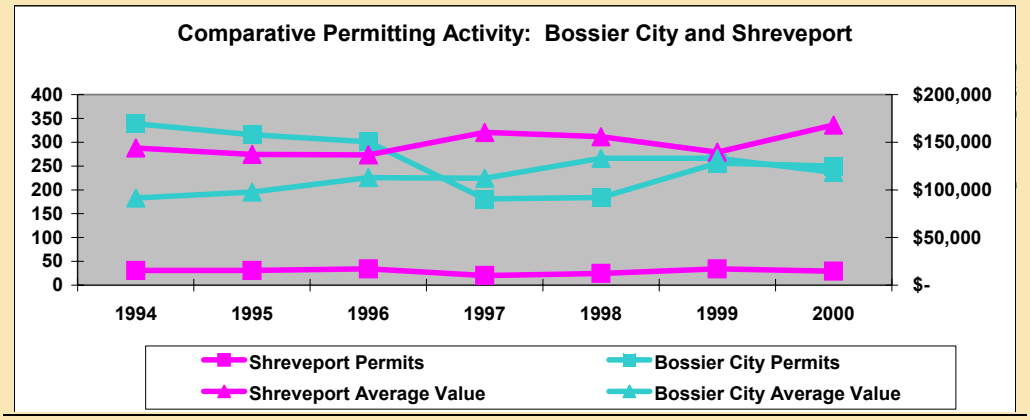
With regard to housing, the Bossier MPC area provides a variety of housing that enables people to fulfill their needs at different points during their lives: as young singles, newlyweds, families, and ultimately as retired empty-nesters. While the core areas will not appeal to everyone — some people will never appreciate urban living — other parts of the Bossier MPC area provide pleasing alternatives. In the older areas, small lots make it challenging to accommodate large families or to create single-level homes preferred by people anticipating future physical limitations. Nonetheless the Bossier core is eminently suitable for a broad swath of the market and can be an exciting in-town option. As shown in **Figure 4.12, Comparative Permitting Activity, Bossier City and Shreveport**, Bossier City is experiencing healthy, steady housing growth limited only by availability and pitching the right product to the right market.

Figure 4.12
Comparative Permitting Activity, Bossier City and Shreveport

New Permitting Activity
Regional Single Family Dwelling Units

Shreveport	1994	1995	1996	1997	1998	1999	2000
Value	$ 33.8	$ 34.0	$ 37.7	$ 37.8	$ 40.2	$ 50.0	$ 55.4
Permits	235	248	276	236	258	358	330
Average Value	$143,830	$137,097	$136,594	$160,169	$155,814	$139,665	$167,879
Bossier City	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**
Value	$ 31.0	$ 30.9	$ 34.0	$ 20.3	$ 24.5	$ 34.1	$ 29.6
Permits	339	316	301	181	184	256	250
Average Value	$ 91,445	$ 97,785	$112,957	$112,155	$133,152	$133,203	$118,400
Combined Market	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**
Value	$ 64.8	$ 64.9	$ 71.7	$ 58.1	$ 64.7	$ 84.1	$ 85.0
Permits	574	564	577	417	442	614	580
Average Value	$112,892	$115,071	$124,263	$139,329	$146,380	$136,971	$146,552

Source: U.L. Coleman, Inc., Economic Stewardship, Inc.



Goals, Objectives and Actions

In the community meetings, Bossier's stakeholders—its citizens and business owners—made plain their desire to revitalize areas of their community that have experienced a gradual decline in economic vitality, housing conditions and quality of life. Moreover, Bossier people want to establish stronger linkages between the market strength they wield and the built environment, including shopping opportunities that characterizes the community. While many of the goals associated with these objectives are included in Chapter 5 – Land Use, additional goals to harness market opportunities for Bossier include:

- Maintain Bossier's character while continuing to promote economic vitality.
- Create incentives for renovating homes in both private hands and under lease to Bossier residents.
- Reestablish older neighborhoods through revitalizing the housing stock to establish a safe, functional and aesthetically pleasing community environment.
- Strengthen Bossier's viability as a destination within the region by expanding special events and festivals.

Promote Economic Vitality

Economic vitality depends on continuous public and private sector investment that promotes economic activity and ensures that Bossier does not become economically isolated from the rest of the region. However, development should be consistent with Bossier's built environment to ensure that it enhances community character and sense of place.

Goal 4.1: Maintain Bossier's character while continuing to promote economic vitality.

Objective A: Create new development opportunities through adaptive reuse and redeveloping economically unproductive sites.

Objective B: Initiate additional catalyst projects to jump-start retail/office activity and leverage the Louisiana Riverwalk project.

Objective C: Support the Chamber's efforts to build Bossier's economic base and nurture jobs-producing uses.

Action 4.1.1: Encourage both the private and public sector to acquire and reuse properties that have become functionally obsolete by virtue of their

location, condition or value. These properties, which no longer function at their highest potential economic use and so depress the value and viability of surrounding uses, can then be used to create new development opportunities.

Action 4.1.2: Establish a process for communicating Bossier opportunities to developers and recruiting prospects.

Action 4.1.3: Create a community identity program and accompanying marketing/communications program to heighten positive awareness of Bossier.

Action 4.1.4: Create a "Buy Bossier" program to help support local businesses.

Action 4.1.5: Increase Bossier's entrepreneurial capacity by encouraging and assisting new small enterprises and helping employees become business owners, e.g., via micro loan programs, retail and business incubators, etc.

Homeownership and Housing Opportunities

Many Bossier neighborhoods include housing units that have fallen into disrepair, whether renter- or owner-occupied. And while many Bossier residents own their homes, for others that dream remains out of reach. Some Bossier residents who could afford a home do not appreciate homeownership as a means of building wealth.

Goal 4.2: Create incentives for renovating homes in both private hands and under lease to Bossier residents and increasing homeownership.

Objective A: Encourage infill housing.

Objective B: Increase homeownership and help the poor and people living on fixed incomes to stay in their homes.

Objective C: Protect historic homes that enhance area character.

Objective D: Encourage the creation of new housing products, e.g., live/work options, congregate care housing for independent seniors, etc.

Action 4.2.1: Work with area lenders to provide mortgages and home equity loans to area residents, identify candidates for homeownership, and explain its financial benefits.

Action 4.2.2: Expand the availability of existing programs that provide assistance with down payments, underwriting interest rates, weatherization, reducing utilities costs, etc.

Action 4.2.3: Pursue designation of appropriate historic homes and any clusters that might qualify as a historic district. Publicize the availability of financial assistance programs, such as restoration tax credits, geared towards encouraging preservation-friendly renovation.

Action 4.2.4: Create a landlord register program to facilitate communication.

Action 4.2.5: Identify workable incentives to increase affordable housing development, e.g., density bonuses, permit discounts, etc.

Bossier Neighborhoods

Vibrant, safe neighborhoods that appreciate benefit from the friendly vigilance of residents safeguarding their homes and blocks.

Goal 4.3: Reestablish older neighborhoods through revitalizing the housing stock to establish a safe, functional and aesthetically pleasing community environment.

Objective A: Help Bossier's neighborhoods regain their identities and help residents influence the future of their environs.

Action 4.3.1: Help small neighborhoods form associations and identify appropriate projects to tackle, e.g., neighborhood clean-up days, converting vacant lots to parks and community gardens, etc.

Action 4.3.2: Direct resources to revitalizing small neighborhood-serving commercial districts.

Action 4.3.3: Expand resident volunteer neighborhood-watch programs.

Bossier as a Tourism Destination

Bossier's casinos and the presence of BAFB means that new visitors arrive on a daily basis. These visitors represent both an immediate market opportunity and long-range business prospects who may one day be making place-based investment decisions.

Goal 4.4: Strengthen Bossier's viability as a destination within the region.

Objective A: Introduce (and re-introduce) Bossier to the region's residents.

Objective B: Expand the menu of things to see and do within Bossier.

Objective C: Increase the knowledge of Bossier visitors take home with them.

Action 4.4.1: Expand special events and festivals while remaining sensitive to neighborhood needs.

Action 4.4.2: Work with casino management to make information available about Bossier to hotel guests.

Action 4.4.3: Create public market for fresh produce, flowers and other home- and farm-made goods on Saturday mornings.

Action 4.4.4: Coordinate with the Louisiana Riverwalk project sponsors on how to market the region together.

Land Use

Land use in Bossier City and Bossier Parish is impacted by a unique mix of circumstances. Major features such as waterways and floodplains, extensive rail systems and Barksdale Air Force Base add amenities but likewise prohibit growth in a traditional pattern of development. Proximity to Shreveport ensures that residential, commercial and industrial development remain intertwined along both sides of the Red River. Natural areas abound within Bossier Parish and, when combined with the significant presence of casinos in Bossier City, make the area a potential destination for a variety of forms of entertainment. The MPC Planning Area includes Bossier City and significant portions of Bossier Parish. As a result, the area is a blend of urban, suburban and rural characteristics and values.

Growth in the MPC Planning Area is a complex issue, but a necessary one as the community begins to expand into sensitive areas and as individuals such as retirees from Barksdale realize that Bossier is an intriguing place to call home. Land use will play a major role in growth, particularly in terms of the way in which such growth occurs. Land use impacts the **pattern, type, scale** and **density** of growth on a communitywide and neighborhood scale. The **quantity** of land envisioned for particular uses will determine the mix of development. Policies ensure that **quality** land use – those uses that will meet the needs and desires of the community – are most likely to locate in the area.

As with any effective comprehensive plan, the concepts of the land use element are integral to other components of the Bossier Comprehensive Land Use and Development Plan. Likewise, land use is also impacted by the various other components of the Plan. Transportation systems provide access to land for development. The provision or lack of utilities can dictate the extent of development. Design and community image can impact the quality of life enjoyed by area residents as well as the demand for development. Proximity to public facilities can impact public health and safety at specific locations and, as a result, impact the desirability and development potential of an area.

The future arrangement of land use requires examining historic growth patterns and current physical characteristics in terms of the types, scale, density and location of residential, commercial, industrial and other public and private land use types. Population projections and several other considerations determine potential land use needs and scope of anticipated development in the area for the next 20 years and beyond.

The Land Use Element of the Bossier Plan provides a physical vision for the future of the MPC Planning Area based upon the concerns and ideals of area residents, civic leaders and business owners. It includes goals, objectives and actions to guide land use decisions as well as a Future Land Use Plan that visually depicts the location of land uses.

The land use element consists of four general sections including:

- **Key land use issues** as discerned through public involvement, land analysis and review of existing documents and processes.
- **Goals, objectives and action statements** that address the issues related to land use.
- **Analysis of existing conditions**, including land development pattern and current land use.
- **Future Land Use Plan**, including discussion of major features and introduction of the Future Land Use Plan Map.

Introduction
Area Profile
Vision & Goals
Market Assessment
Land Use
Parks & Open Space
Transportation
Utilities & Infrastructure
Housing
Image & Design
Facilities & Education
Policies & Strategies
Implementation

Key Land Use Issues

Analysis of existing conditions, prior reports, land use trends, and public input gathered through various public forums, focus group interviews and an interactive website developed during the planning process has revealed a number of issues that significantly impact land use in the MPC Planning Area. In conjunction with the Master Plan Advisory Committee (MPAC), these issues have been summarized into broad categories. Each issue is addressed through goals, objectives, actions and the Future Land Use Plan.

- **Growth potential and development constraints –** There is no question that growth must be allowed to occur in the MPC Planning Area. Development in the Bossier Area has historically occurred in a unique pattern to avoid sensitive or less desirable areas. However, as optimal development areas become fewer, growth decisions become more complex. Development is currently encroaching upon flood prone areas, raising concerns for safety, stormwater management, and preservation of natural resources. Areas within the Barksdale Air Force Base AICUZ (Air Installation Compatibility Use Zone) permit limited development. However, too much development may increase safety and quality of life concerns for residents while also risking the continued viability of Barksdale AFB. Similarly, the same rail service that provides economic opportunity to the Bossier area likewise creates traffic and quality of life issues that hinder urban revitalization and expansion efforts.

- **Effective, well-balanced pattern of land uses –** As previously mentioned, successful land use development involves an appropriate pattern and quantity of land uses to permit development in a manner most beneficial to the MPC Planning Area. For example, the appropriate amount of land must be set aside for a variety of housing types. Equally important is the placement of land uses, particularly in proximity to each other.

  Public input during the public participation process indicated a number of instances of land use incompatibility, particularly within Bossier City where land uses are more likely to be mixed, but not always in a highly desirable manner. Elsewhere land uses are segmented into distinctly separate areas, such as residential subdivisions, with very little thought to the importance of an appropriately integrated pattern of land uses, including adequate parks, natural areas, daily commercial needs and public facilities.

- **Conservation and enhancement of natural resources –** As documented in the Area Profile, the Bossier MPC Planning Area is situated among a multitude of natural resources. Many Bossier residents cited the need and value of protecting, conserving and enhancing these assets. Louisiana tourism promoters refer to northern Louisiana as "Sportsman's Paradise".

  Modern subdivision design and, worse, strip lot development, provide very little protection to sensitive areas. Houses, in many cases, have simply been elevated above the flood line. The result is a housing development that is surrounded by water during flood events.

  While many of these areas are most suitable for agriculture use or as natural areas, development pressure will likely mean that development in sensitive areas will continue. Changes to development patterns may allow development to continue in a manner that is coordinated with the sensitive nature of certain sites. It may also allow for more area to remain in an agricultural or natural state. Rather than a barrier to good design, sensitive areas may provide a series of open spaces that maintain the natural setting of the area, link the community, establish and enhance a "theme" for Bossier and improve opportunities for recreation.

- **Utilization and enhancement of currently developed areas –** The need to develop new opportunities in the MPC Planning Area does not necessarily mean that such development must take place on vacant property. Significant development potential continues to exist in areas already developed. Community revitalization efforts, infill development, and enhanced development of existing areas not only maximizes efficient use of resources, it ensures that development of sensitive or rural areas is limited.

  Bossier residents have indicated the need to take advantage of previously developed areas. Many have cited the need to improve "downtown" or "Old Bossier." Despite the current lack of definition or strong investment in the area, some see it as an opportunity for

revitalization, particularly considering its proximity to local amenities. Other established areas within Bossier City and Bossier Parish offer similar potential.

- **Responsible new development –** Vacant land, both that which is outside of sensitive areas and that which is within, is a limited commodity. To reduce concerns such as flooding, stormwater management, incompatible land development, and substandard development, new growth should be accomplished in a manner that enhances quality of life and simultaneously maximizes use of the site.

  The development pattern of Bossier City and Bossier Parish, in its effort to remain clear of sensitive areas, has resulted in linear growth with limited connectivity and consideration of access to services and resources beyond use of the automobile. More, modern subdivision design strongly separates land uses.

  Dynamic communities with a high quality of life commonly include a healthy mix of land uses with a design pattern that is equally conducive to both pedestrian and traffic activity. Many also include specific nodes of activity that focus upon an activity or landmark. In Bossier City and Bossier Parish, this may include Cane's Landing or the area surrounding the CenturyTel Center.

- **Appropriate implementation –** The MPC Planning Area includes an extensive area comprised of many differing character traits. Bossier City is largely urban with a mix of historic, grid pattern development as well as modern development comprised of strip commercial and residential subdivision activity. Bossier Parish is a mix of suburban and rural development that includes significant subdivision development among rural activity. One of the greatest challenges of the MPC is development of a series of planning policies and functions that accurately addresses the unique needs of each of these different character areas.

  Current planning standards do not completely address the difference in character between urban, suburban and rural areas. Likewise, they do not always provide the product that is desired by area residents.

Goals, Objectives and Actions

The goals, objectives and subsequent actions respond directly to the issues raised by citizens who participated in the community meetings conducted as part of the planning process. They also reflect the observations discovered through extended analysis of the various land uses throughout the MPC Planning Area. Finally, the land use element also complements the goals and objectives of previously adopted plans, such as the "Joint Land Use Study – Bossier City, Louisiana."

Land Use goals include:

- Promote efficient, long term growth within the MPC Planning Area and outside of sensitive development areas;
- Achieve a balanced, diverse and dynamic pattern of land uses that preserves and enhances the character of Bossier;
- Encourage preservation and sensitive utilization of natural areas, particularly floodplains, wetlands, the Red River and its tributaries;
- Utilize, revitalize and maintain the urban areas of Bossier in a manner that represents dynamic character and strengthens economic capacity;
- Develop new areas with an appreciation for sensitive environments, long term quality of life, economic efficiency, and community character; and,
- Develop and implement a series of policies, regulations, processes and incentives that consistently represent the vision of the community and the character of the area.

Growth Potential and Development Constraints

Bossier City has sufficient acreage of vacant and underdeveloped land to encompass all anticipated future development through the next two decades. However, much of that vacant land is located in flood prone areas, wetlands or the Barksdale AFB AICUZ. Likewise, much of the remainder of the MPC Planning Area also includes development constraints. Areas with few development constraints are confined to a limited number of areas that incidentally include quality access and an opportunity for responsible new development.

Development constraints, such as railroads, floodplains, and the presence of Barksdale AFB challenge Bossier's ability to expand, but opportunities are great to create walkable urban nodes.

Goal 5.1: Promote efficient, long term growth within the MPC Planning Area and outside of sensitive development areas.

Objective A: Protect the integrity of the Air Installation Compatible Use Zone as proposed by the *Joint Land Use Study – Bossier City, Louisiana.*

Objective B: Establish boundaries for areas that are available for intense development activity compared to those areas that require sensitive development as a result of the AICUZ, floodplains and wetlands.

Objective C: Encourage development of "urban villages" in areas with minimal development constraints that will meet the daily needs of area residents, yet still depend upon the commercial core of Bossier City for specialty services.

Action 5.1.1: Restrict development within the AICUZ to low density development in accordance with the *Joint Land Use Study* recommendations, including the possibility of Conservation Subdivision Techniques that utilize areas outside of the AICUZ for the majority of home development and preserve land impacted by the AICUZ as open space.

Action 5.1.2: Encourage alternative uses for land within the AICUZ such as agricultural activity, natural areas and low intensity recreational opportunities.

Action 5.1.3: Ensure coordinated participation between Barksdale AFB, Bossier City and Bossier Parish in future revisions or updates to the Joint Land Use Study or the AICUZ.

Action 5.1.4: Pursue changes to subdivision and zoning regulations that will permit mixed use, cluster development necessary to implement an urban village, including issues such as lot size, setback, lot coverage, parking requirements, sidewalk requirements, street layout, and block size.

Action 5.1.5: Consider altering requirements for subdivisions to include conceptual design, including landmarks, edges, nodes, paths and districts, as well as the relationship of the proposed development with the surrounding area.

Effective, Well Balanced Pattern of Land Uses

The balance of land use in Bossier City and Bossier Parish is complex because the presence of Barksdale Air Force Base and neighboring Shreveport act as major influences on development patterns. Office space in Bossier is currently lower than would normally be expected. This is likely the result of the presence of Shreveport, but it may also be due to the lack of a formidable downtown in Bossier City. Likewise, much of the more prominent commercial retail activity is also located in Shreveport.

Despite the presence of these major influences, the MPC must continue to seek balance in available land uses. More, existing land uses must be appropriately assembled to maximize efficiency and improve area quality of life.

Industrial areas are common along Bossier's network of rail lines that traverse the area.

Goal 5.2: Achieve a balanced, diverse and dynamic pattern of land uses that preserves and enhances the character of Bossier.

Objective A: Provide a mix of different land use types in suitable locations, densities and patterns consistent with the goals and objectives established in this plan.

Objective B: Encourage the development of compatible land uses, avoiding mixtures of incompatible uses in close proximity to each other.

Objective C: Encourage the creation of districts that include a recognizable identity and clustered development of compatible land uses, such as a gaming district, an arena district, an industrial district, or downtown.

Action 5.2.1: Utilize the Future Land Use Plan as a guide for the generalized distribution and location of uses.

Action 5.2.2: Monitor the changing allocations of existing land uses in relation to the ratios used to develop the Future Land Use Plan.

Action 5.2.3: Use natural or created buffers as a means of avoiding conflict between two incompatible land uses, such as heavy industry and single family residential development.

Action 5.2.4: Review and update the MPC zoning map and ordinance periodically to discourage mixing of incompatible uses without remedy of all negative impacts.

Action 5.2.5: Consider revisions to the zoning ordinance that encourage location of specific uses in areas such as an industrial district in the area of the Bossier Industrial Park or commercial office and retail activity in downtown.

Action 5.2.6: Permit on site mixing of uses that utilizes traditional land development patterns, such as lower profile home occupations and "granny flats" (accessory housing unit such as an above garage apartment) in residential areas, as well as first floor commercial and upper floor residential in a traditional commercial center or downtown area.

Action 5.2.7: Ensure that a variety of housing options are available throughout the area and that options are well distributed in Bossier City and Bossier Parish.

Conservation and Enhancement of Natural Areas

One of Bossier's greatest assets is its natural setting. Along the Red River and a multitude of bayou tributaries are pockets of untouched, natural habitat worthy of preserving through conservation easements and other methods. These assets offer a number of identifiable benefits, including improved water quality, increased flood storage capacity, increased open space, and natural buffers between land uses. On the other hand, unfettered development in these areas not only destroys a potential economic and natural resource for the area, but also increases the risk of flooded homes and increased stormwater issues.

Goal 5.3: Encourage preservation and sensitive utilization of natural areas, particularly floodplains, wetlands, the Red River and its tributaries.

While floodplains and wetland areas are plentiful within the Bossier Planning Area, utilized properly as open space and recreation, they can become a valuable community asset.

Objective A: Utilize floodplain and wetlands as natural trail systems and a series of recreation areas that form linkages and focal points within the community.

Objective B: Limit development in areas with significant floodplain and wetlands to development types that are considerate of natural resource conservation.

Objective C: Encourage continued use of floodplains for agricultural purposes and other limited impact uses.

Objective D: Develop programs aimed at acquiring floodplain and wetlands for purposes of preservation of natural

resources and the rural character of the MPC Planning Area.

Action 5.3.1: Design a network of trails throughout the MPC Planning Area and incorporate strategic floodplains, such as those along significant tributaries and the Red River.

Action 5.3.2: Link public, and possibly private, park facilities together utilizing a pedestrian trail system comprised of natural areas.

Action 5.3.3: Encourage the use of conservation subdivision techniques for neighborhood design within Sensitive Development Areas that will allow for preservation of significant open space while clustering housing units on optimal sites.

Action 5.3.4: Promote establishment of conservation easements on open spaces within conservation subdivisions and other developments that set aside sensitive areas for preservation.

Action 5.3.5: Consider incorporating agricultural areas into conservation subdivisions and permitting agricultural activity to continue on protected open spaces.

Action 5.3.6: Allow large lot subdivision development to occur in the Sensitive Development Area with restrictions on placement of homes, lot size and reduced number of permitted homes compared to conservation subdivisions.

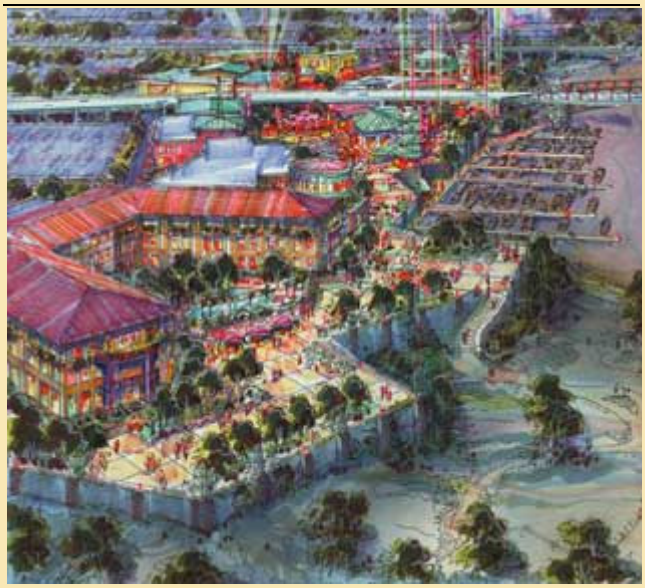
Action 5.3.7: Establish a program to acquire easements or development rights on Sensitive Development Areas and establish a trust to monitor the program.

Utilization and Enhancement of Currently Developed Areas

Sites that offer opportunities for development within the urbanized area often carry real or perceived barriers. To many, a site that is not fully developed is perceived as somehow flawed or otherwise difficult to market. Residential infill sites, for example, may be desirable places for development, however, it is less cost effective to develop scattered site infill than to create a new subdivision.

Numerous opportunities for infill activity and reinvestment exist within the urban areas of Bossier. Residents have indicated the desire for a strong downtown core encompassed by well maintained, high quality neighborhoods. Bossier neighborhoods already have a sense of identity and many are well maintained. Several others simply require reinvestment in infrastructure and repair programs to once again meet the expectations of area residents.

Goal 5.4: Utilize, revitalize and maintain the urban areas of Bossier in a manner that represents dynamic character and strengthens economic capacity.



Source: City of Bossier City

The Louisiana Riverwalk project in old Bossier promises to provide ample non-gaming oriented entertainment to compliment that strong gaming market draw from Texas and serve as a gathering place for Bossier residents.

Objective A: Utilize the area surrounding major amenities to spur quality, dynamic economic development, including the CenturyTel Center (an arena district), the medical facilities (a health or medical district) and Bossier City Municipal Complex (a public campus).

Objective B: Enhance existing neighborhoods, subdivisions and commercial areas that are "at risk" of decline such as the commercial corridor along Airline Drive in North Bossier.

Objective C: Encourage infill development within the existing urbanized area, including demolition or rehabilitation of substandard structures and underdeveloped property.

Objective D: Build upon opportunities such as the proximity between the new Bossier Parish Community College site

and industrial activity, or the gaming sites and the proposed Riverwalk project.

Action 5.4.1: Develop a series of district plans that offer the strategic vision for such sites as the arena district, the gaming district, downtown, the medical district and the technology district (around Bossier Parish Community College).

Action 5.4.2: Determine strengths, weaknesses, opportunities and action strategies for each at risk neighborhood.

Action 5.4.3: Conduct a commercial and residential neighborhood analysis to determine those neighborhoods and subdivisions that could be categorized as "at risk" of decline.

Action 5.4.4: Coordinate with area homeowners associations, business associations, nonprofit organizations and other entities for implementation of revitalization efforts.

Action 5.4.5: Determine the implementation steps necessary to successfully fulfill the plans for each district and begin to seek out potential development partners.

Action 5.4.6: Develop a program for each area, including an incentive package, design standards, availability of land and facilities, and description of amenities.

Action 5.4.7: Strengthen interconnections with other areas of the MPC Planning Area.

Action 5.4.8: Increase the dynamic character of existing areas through added flexibility in the ability to mix uses, densities and amenities.

Responsible New Development

A community can grow sensibly by balancing economic development and environmental protection, focusing new development where public services and utilities are already available, actively supporting redevelopment of older areas and vacant buildings, valuing its traditional downtown and vibrant mixed-use areas, maintaining an efficient street network and infrastructure systems, providing convenient neighborhood shopping and attractive parks, and ensuring pedestrian-friendly commercial districts and walking connections between neighborhoods, parks and schools. Through effective land use planning and urban design, a community fulfills its paramount responsibility to promote the public health, safety and welfare while also providing predictability in the development process.

Goal 5.5: Develop new areas with an appreciation for sensitive environments, long term quality of life, economic efficiency, and community character.

Objective A: Coordinate the location, type and density of land use activity with utilities and transportation planning to ensure desired development outcomes.

Objective B: Minimize the distance required to travel to reach daily destinations such as work, recreation, shopping and home.

Objective C: Incorporate green space and public uses into new development.

Objective D: Maintain quality and character as hallmarks of development in Bossier.

Action 5.5.1: Explore the use of concurrency requirements to establish the limits of development, including adequate provision of water, wastewater, stormwater management, and streets, as well as other possibilities such as police, fire, emergency medicine, schools, libraries and parks.

Action 5.5.2: Maintain a coordinated database and map indicating the location and service limits of the elements for which concurrency shall be required. For example, the extent of water service or acceptable response time for law enforcement.

New development opportunities should be sought through infill situations. Typically, infill developments are able to utilize existing utility infrastructure and public access.

Action 5.5.3: Incorporate daily commercial activity into commercial centers that are strategically located within ten minutes walking distance from home or a place of employment.

Action 5.5.4: Promote densities adequate to support commercial retail, service and potentially office. Density may vary with the greatest intensity of activity occurring nearest to the commercial center.

Action 5.5.5: Place green space liberally throughout new development as a means of preserving the small town character of the area, providing pedestrian linkages throughout the development, and adding recreation opportunities.

Action 5.5.6: Incorporate pedestrian scale development requirements into ordinances to allow for reduced setbacks and increased density, with offsetting green space requirements.

Action 5.5.7: Utilize development guidelines, standards and incentives as means of maintaining quality design and preservation of local character.

Action 5.5.8: Ensure that development occurs in a progressive manner from existing urban areas or from the satellite urban villages.

Action 5.5.9: Consider coordinating with the State Legislature to expand the boundaries of the MPC Planning Area.

Appropriate Implementation

One sign of a quality plan is that it has the capacity to galvanize residents and local leaders under a single vision. Because of the different missions of the various jurisdictions involved in implementing a plan such as the Bossier Comprehensive Land Use and Development Master Plan, development of a single vision can be a difficult task. Once discovered, however, it allows all parties to administer, enforce and implement in a cohesive manner.

Many residents cited concern over the lack of intergovernmental cooperation by the various parties involved in implementing the community's vision, including Bossier City, Bossier Parish and the Bossier Parish School Board. Communication is easier when all sides are acting with the same overall mission.

Goal 5.6: Develop and implement a series of policies, regulations, processes and incentives that consistently represent the vision of the community and the character of the area.

Objective A: Develop means of coordination between interested and impacted parties.

Objective B: Maintain an open development process that incorporates use of the Bossier Comprehensive Land Plan as a guide.

Objective C: Produce a system that guides overall amendment of the Plan.

Objective D: Ensure that the Plan continues to incorporate the needs and character of all areas of the community.

Action 5.6.1: Establish a means of maintaining communication between organizations such as Bossier City, Bossier Parish, the Metropolitan Planning Commission, the Northwest Louisiana Council of Governments, and the Bossier Parish Community College, Barksdale AFB, and other necessary parties.

Action 5.6.2: Incorporate the Plan into everyday decision making processes, as appropriate, including meetings and hearings of the Metropolitan Planning Commission, Bossier City Council, Bossier Parish Police Jury, and other bodies.

Public participation has been the cornerstone of the Bossier comprehensive planning effort that must not cease during the implementation phase of the planning process.

Action 5.6.3: Annually report on the progress of meeting the goals of the Plan.

Action 5.6.4: Maintain public recognition of the Plan as a dynamic document created to implement the vision of the general public of the MPC Planning Area.

Action 5.6.5: Create a task force charged with annual review of the Plan for continued relevance, necessary changes and altered course.

Previous and Current Plans, Studies and Policies

A number of plans and studies have previously been completed in Bossier City and Bossier Parish. Many of these studies have addressed the issue of land use in Bossier City and Bossier Parish. Several studies have specifically tackled issues related to Downtown and the Riverfront District. Others have been designed for Barksdale AFB and its relationship to the surrounding area or to address specific issues such as flood management. Each of these studies and plans was utilized in development of the Land Use Element. Relevant plans and studies included:

- **A Plan for Action: Bossier City Downtown Study** – This report was prepared by a consultant in 1980 and aimed to rejuvenate downtown Bossier City. In doing so, a detailed land use inventory was conducted. Positive and negative attributes of land use downtown were assessed. The diversity of land uses, presence of a floodplain between the levee and the river, and some strong neighborhoods were noted as strengths. Weaknesses included the lack of developable land, land use and zoning conflicts and a deteriorating housing stock. A land use plan was developed based on development intensity and land use types.
- **Interim Report on Analysis of Existing Conditions - Master Plan for Downtown & Riverfront District (1994)** – Following passage of the Louisiana Riverboat Economic Development and Gaming Control Act of 1991, the gaming industry has had a tremendous impact on Bossier's riverfront. Within the Interim Report, evaluations were made of a downtown development district and a larger riverfront development district that encompassed the Cane's Landing site.
- **Addendum to Bossier City Downtown Redevelopment Plan** – Prepared in 1999 by consultants, the Plan addressed the correlation between land use and transportation issues to the feasibility of improvements in Old Bossier since the arrival of the gaming industry along the Red River.
- **Joint Land Use Study-Bossier City, Louisiana** – The Joint Land Use Study (JLUS) was completed by a consultant in February 1995 as the result of a "joint and cooperative endeavor between Barksdale AFB and local jurisdictions" including the City of Bossier City, the Town of Benton and Bossier Parish. The study sought to develop long-term recommendations for surrounding land use to aid the jurisdictions in maintaining compatibility between the base and surrounding uses. Conclusions were based upon extensive data collection, analysis of noise level contours and accident potential zones, as well as public comment gathered through steering committees. The report proposed that existing zoning ordinances be reviewed and amended to restrict expansion of development already located in high decibel level areas.
- **Barksdale Air Force Base Comprehensive Plan (Executive Summary)** – While this plan, completed in 1989, is confined to the Air Force base, consideration is given to its peripheral impacts.
- **Flood Hazard Mitigation Study** – This study, completed in 2001 by a consultant, identified the nature and extent of flood risks, history and potential in Bossier City as well as Bossier Parish. The number and distribution of structures that have sustained repetitive flooding is also noted and accompanied by mitigation strategies to prevent future occurrences. Land use policies were also assessed for consistency with locally adopted Flood Damage Prevention Ordinances for the National Flood Insurance Program (NFIP).
- **South Bossier River Basin Study** – Prepared by the USDA Natural Resource Conservation Service (NRCS) in 1998, the study sought to comprehensively address erosion, flooding, water quality and wetland loss - all associated with inadequate floodplain management due to rapid development.

- **Benoit Bayou Floodplain Management Study** – This study, completed in 1994, is the result of requests by various entities in Bossier Parish to resolve persistent flooding challenges along Benoit Bayou. The Soil Conservation Service conducted the evaluation and developed results to assist in land use decisions such as regulating floodplain use, controlling upland land uses, and mitigation steps for existing properties subject to flooding.
- **Water Supply Analysis for Louisiana, 1975-2000** - This analysis, developed by the Gulf South Research Institute, discussed water supply problems according to six state Water Resources Planning Areas (WRPAs): Northwest, North Central, Northeast, Southwest, South Central, and Southeast. (These six WRPAs were further divided into 24 sub-areas following parish lines.) Water supply problems were summarized by region. The study noted that the MPC Planning Area (designated as part of the Wilcox Formation in the Northwest WRPA, Shreveport metropolitan area) has a low yield of groundwater. The primary source of surface water, the Red River, has high chloride content. Future demands could be met "if ground water is developed carefully" and if use of the Red River as a supply source can be increased.

Existing Land Use

The current landscape of the MPC Planning Area is the result of growth and change that come from beginning as a series of plantations near Shreveport to the home of Barksdale AFB, a burgeoning gaming industry, and tens of thousands of residents. From the beginning, development has responded to the physical features created by the Red River and its tributaries. Over time, it has likewise reacted to major manmade features, such as railroads and the air base. The resulting land use pattern is unique to the MPC Planning Area.

While the character of the community is its own, the basic needs of the community remain similar to those of most other metropolitan areas. Residents seek quality housing and ample employment opportunities. Equally important are places to shop, learn and play. Bossier's current ability to provide these uses is the foundation for development of a Future Land Use Plan.

Features that Impact Development

Interestingly, the MPC Planning Area includes few of the obvious natural characteristics that dramatically impact development patterns. Yet those few natural features, along with several manmade amenities, have played a major role in the manner in which the community has evolved.

Red River. Historically, the Red River represents the primary physical barrier to development in Bossier. Developed in coordination with Shreveport, Bossier has grown along the eastern edge of the Red River. Floodplain along the river has prevented development from encroaching too closely to the water's edge without construction of significant levees for protection. The oldest areas of Bossier are designed in this fashion.

The river's course has modified significantly over the years. Many of the meanders have been straightened through natural means, while others are due to human intervention. The river is an attraction and continues to be an economic stimulant, but its susceptibility to flooding has required the construction of a levee system in the urbanized area. Land "inside" the levee system has been underutilized for many years. The area known as Cane's Landing represents numerous opportunities to stimulate development in Old Bossier while maintaining the land's natural beneficial functions. A Master Plan for the development of the site was prepared in 1994. Other sections of the riverfront are also transforming. The proposed Riverwalk is currently underway. Arthur Ray Teague Parkway/Greenspace and CenturyTel Center add anchors near southern Bossier City.

Barksdale Air Force Base. The base is a significant focal point for Bossier in terms of its economic impact, its physical presence, and the flight path of thundering B-52 Stratofortresses. The air base has been operational since 1933 and it has proven importance to both Bossier and national security. In this era of base closures, both Barksdale AFB and Bossier have a strong interest in ensuring that the needs of the air base are met.

The military has historically requested that development be limited along the flight path around Barksdale AFB and Bossier has largely complied. Development has substantially occurred along a linear path west of the base, but east of the Red River.

As shown in **Figure 5.1, General Development Constraints,** Barksdale AFB has designated an Air Installation Compatible Use Zone (AICUZ) to protect residents from noise and the rare risk of accidents along flight paths. The AICUZ stretches north, south and west across much of Bossier. The vast majority of the AICUZ consists of areas with a potential for significant noise levels. Uses within the AICUZ are suggested to be limited and low density, with decreasing resident traffic as potential noise level increases. Accident Potential Zones propose to further restrict development near areas of takeoff and landing to reduce accident risk.

Floodplain and Wetlands. While the vast majority of Bossier Parish is dry, a significant portion of the area is comprised of wetlands. Located throughout the Parish, these areas have commonly been avoided for development. Harder to avoid, however, has been the myriad of acreage within floodplains created by the Red River and its tributaries. Figure 5.1 portrays the significant amount of the MPC Planning Area that is located within the 100 year floodplain.

When possible, these areas have been avoided for development. Historic development needed levees to avoid flooding. Today, new construction requires that buildings be placed above the level of the 100 year floodline. With this, however, come concerns for safety during flood events, increased stormwater management, and the risk of destroying sensitive and natural areas within the parish.

Areas along the Red River inside the levee system are subject to the 100-Year and 500-Year floods. Other portions of the Planning Area are also in the Special Flood Hazard Area and susceptible to flooding associated with the numerous bayous that traverse the area. While the remainder of the community is not identified by the Federal Emergency Management Agency (FEMA) in the regulatory floodplain, localized flooding may occur as a result of poor drainage infrastructure.

Bossier City is identified by FEMA as a repetitive loss community because at least ten structures have sustained repetitive flooding two or more times in any ten year period since the inception of the National Flood Insurance Program. To address this, a Flood Hazard Mitigation Plan was recently assembled by a consultant under a grant program that outlines strategies to mitigate existing repetitive losses and prevent future occurrences. Under a FEMA grant program, several residential structures in the area are being mitigated through acquisition and relocation or demolition. Mitigated land is required to be used as open space in perpetuity thus removing structures and population from the risk of flooding.

Railroads. Developed to haul resources and the industrial might of the country, railroads are common in Bossier City and Bossier Parish. While the glamour of rail service has faded and truck traffic has become the dominant means of moving freight, the lines in Bossier remain very active. They remain a positive amenity for industrial sites throughout Bossier, however, rail lines create a number of barriers throughout the parish and sometimes hamper reinvestment efforts in surrounding residential areas.

Interstates and U.S. Highways. While the major local arterials of Bossier City follow a north-south pattern, a series of interstates and federal highways cross the parish in an east-west fashion. Interstates 20 and 220, as well as U.S. Highway 80, carry traffic north of Barksdale Air Force Base. As is common in modern development, strip development has moved east along the major corridors, including some commercial and industrial development within the AICUZ. Further east, proximity to major roads has spurred development beyond the Bossier City limits, in areas where the elevations begins to rise above the floodplain.

Brownfields. Brownfields, per the Louisiana Department of Environmental Quality, are abandoned, idled, or underutilized industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination**.** Two sites in the MPC Planning Area have been placed on the *National Priorities List*. One, the Old CITGO refinery site, is located on U.S. Highway 71/72. According to the Environmental Protection Agency (EPA), the site originally consisted of 215 acres. The 120-acre north portion of the site contained a bulk storage area while the remaining acreage included a refinery process area. After being cleared for development in the 1960s, the site has been fully developed with residential, commercial and light industrial uses.

The other site, formerly Lincoln Creosote, is bisected by the Kansas City Southern rail line and surrounded by multifamily residential development between Benton Road and Airline Drive. The abandoned wood treatment facility operated from 1935 to 1969. The site is generally vacant with the exception of two commercial uses.

Additionally, two other sites totaling slightly less than 50 acres have been identified as possible locations of brownfields. Both are located in Bossier City and the municipality has applied for funding through the Environmental Protection Agency to address the sites.

Oil and Gas Production. Oil and gas extraction facilities are in and around Bossier. As noted within the Area Profile, Elm Grove, Sligo, and Bellevue fields represent the most significant oil production sites in the area. Other wells are scattered with some concentration on the eastern end of BAFB and to the south (Sligo).

Development Pattern

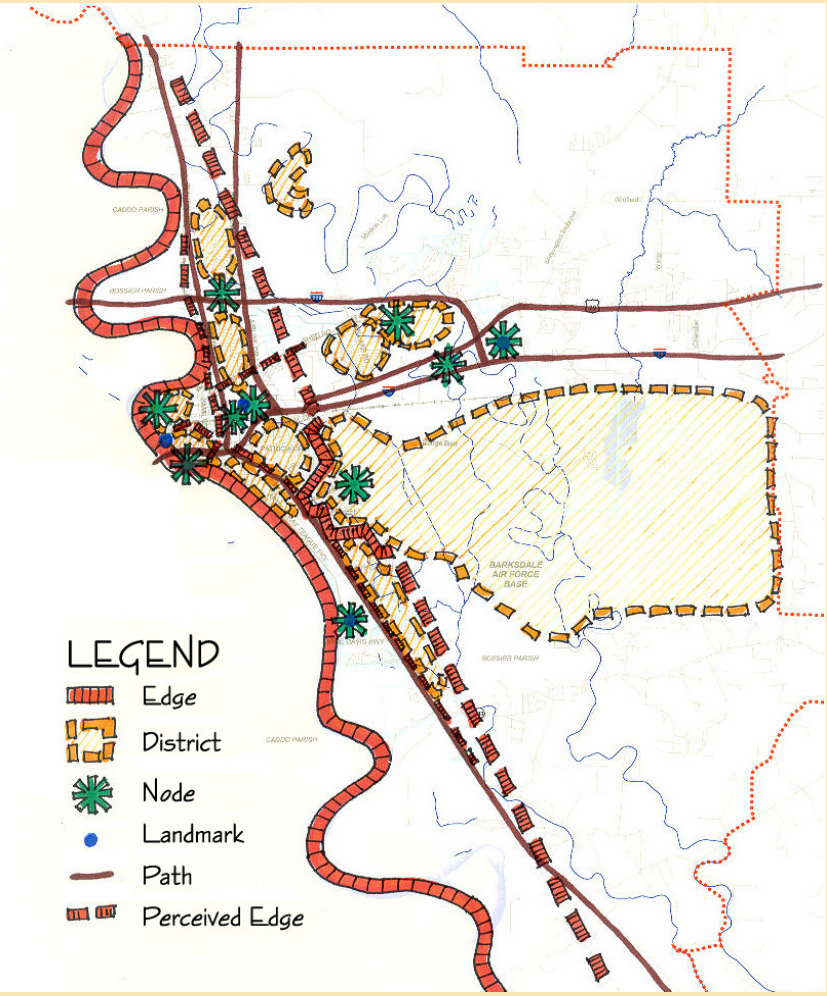
Patterns of land use are best described at two scales. At a large scale, uses throughout the MPC Planning Area work together to form the Bossier area. The area includes places to work, play, and live (understanding that many of these activities also occur for some people outside of the planning area and specifically in Shreveport). On a smaller scale, land use patterns can be examined at the neighborhood level. Here, land use is designed to meet the daily needs of residents.

Communities and neighborhoods function by design. Land uses fit the pattern to meet the needs of the community or neighborhood. Studying land uses first requires an understanding of the design of the community or neighborhood to truly understand the physical role of land use. Design of a community can best be described through five characteristics coined by Kevin Lynch, a renowned planner and keen observer of the successful function of communities: paths, districts, nodes, edges, and landmarks.

- **Paths.** Paths are channels for traveling from one destination to another. These may include roads, sidewalks, waterways, or railroads. Paths create the framework of the community on which all other components fit. On a communitywide scale, examples of paths include Interstate 20, Barksdale Boulevard, Shed Road, and the rail lines. On a smaller scale, paths include the local and collector roads within the neighborhood, such as Shady Grove Drive, Watchwood Drive, Southwood Drive, and Yarborough Street.
- **Districts.** Districts are identifiable areas within a community or neighborhood. Each has a distinct character that is separate from other areas. That character is generally physical and can be as simple as a stark change in land use to a change in housing stock. Within a community, neighborhoods can function as districts or can be combined into larger "residential districts." Within the MPC Planning Area, the community includes a gaming district, a number of industrial districts, North Bossier, and Barksdale AFB. Neighborhoods will generally include far fewer districts than communities and some may consist of a single district. Mixed use or older neighborhoods will include commercial districts, residential areas of varying intensity, and possibly industrial districts.
- **Nodes.** Nodes are significant destinations. They primarily include focused concentrations of land uses, a major feature, or any other event that commonly draws individuals together. For communitywide analysis, a node may include such destinations as the Pierre Bossier Mall, CenturyTel Center and Louisiana Downs Race Track. At the neighborhood level, a node may include Mike Woods Park, Bossier Elementary School, or a local grocery store.
- **Edges.** Edges are the distinct ending of one area and, if well designed, the obvious beginning of another. An edge is always a physical presence, but it can also include a social perception of borders. The most obvious edges within the community are the Red River and Barksdale AFB. Both provide very definite borders. On the neighborhood level, railroads and interstates can form boundaries. North Bossier's historic grid pattern stands in stark contrast from other areas, making departure from the area a fairly obvious event. Edges should not be confused with gateways, which are limited to grand entries and exit points. Green Acres includes a distinct sense of entry or departure along Benton Road, but it does little to establish an edge.
- **Landmarks.** Landmarks are focal points. They remind the resident or visitor of where they are within the community or neighborhood. The sense of a landmark, however, depends not on its magnitude, but its uniqueness that allows it to become obviously visible. In urban areas, a landmark may include a major monument or an obvious element, such as the Horseshoe Casino. In a more rural setting, landmarks become items such as a barn, large house, church, or even a particularly recognizable tree.

Figure 5.2, Bossier Land Pattern, provides a general understanding of the impact that physical features have had on development within the MPC Planning Area. The significant majority of features occur within Bossier City, which is natural since the majority of land features commonly occur in urban areas.

Figure 5.2
Bossier Land Pattern



Source: Wilbur Smith Associates

Land Use Inventory

To determine the quantity and location of land uses throughout the MPC Planning Area, an inventory was initiated including two phases. A windshield survey of all uses in Bossier City was completed in September 2001 as a means of addressing the more complex urban area. Inventory in the suburban and rural areas outside of Bossier City was completed in July 2002 utilizing aerial imagery and windshield survey "spot checking" to enhance accuracy.

Land uses have been documented according to the type and density of development on a parcel-level basis within the MPC Planning Area. Uses in the area were divided into 12 classifications.

Rural Development (RD) – (Light Yellow) Areas characterized by sparsely populated, usually unsubdivided parcels of land typically used for agriculture, forestry, resource extraction, low-density residential uses, or natural open space were classified as Rural Development. In the case of the MPC Planning Area, a significant portion of this area is also categorized as a floodplain, wetland, or part of the AICUZ.

Low Density Residential (LDR) – (Dark Yellow) Low Density Residential uses include conventional single-family detached dwellings, two-family residences (duplexes), town homes and patio homes.

High Density Residential (HDR) – (Orange) High Density Residential activity includes multiple family dwellings (three or more units) such as apartments, rooming and boarding homes and group quarters, such as nursing homes and assisted living facilities.

Manufactured Housing (MH) – (Brown) Single-family dwellings comprised of mobile homes constructed prior to June 15, 1976 and HUD-Code Manufactured Homes constructed after June 15, 1976 fall within this category. For mapping purposes, this category was commonly associated with clusters of manufactured housing, particularly in parks or communities.

Commercial Office (CO) – (Pink) Commercial Office uses include offices and other commercial uses that are compatible with office uses, including freestanding office buildings, building complexes or business parks.

Commercial Retail (CR) – (Light Red) This category is commonly comprised of restaurants, hotels and motels, service stations, general retail shops, shopping centers, department stores and other retail establishments. In the case of Bossier, it also includes gaming establishments, such as casinos and the horse track.

Public/Semi-Public (PSP) – (Dark Blue) The Public/Semi-Public category is comprised of public uses including schools, government buildings and semi-public uses such as churches, hospitals, cemeteries, community facilities, clubs/lodges and other places of assembly.

Light Industrial (LI) – (Light Purple) Industrial activities are generally separated according to intensity and the extent of outside storage. Light Industrial activities include significant low intensity, limited impact industrial uses such as office/warehouse, wholesale, product assembly, and light manufacturing.

Heavy Industrial (HI) – (Dark Purple) Heavy Industrial uses are those involving higher intensity than Light Industrial uses, or those that include outdoor storage. Large-scale manufacturing and heavy industrial processing plants with outdoor storage, display, and work activity are examples.

Park (PK) – (Green) Parks includes public parks, outdoor recreation areas, publicly-owned undeveloped land, and open spaces that are committed to public or private enjoyment.

Vacant (V) – (Grey) The Vacant category is comprised of vacant and undeveloped land that is generally located within an urbanized area.

Rights-of-Way and Easements (ROW) – (White) Right-Of-Way is public land that is separated from other public and semi public land uses because it serves as transportation or utility corridors. Predominately, this category includes surface features such as roadways, railroads, drainage ways, buried utilities and pipelines, as well as communication and electrical transmission lines. Right-of-way information was only available for survey within the Bossier City municipal limits. As a result, the right-of-way category is not utilized in Bossier Parish outside of Bossier City.

Figure 5.3, Existing Land Use Inventory and **Table 5.1, Existing Land Use** depict the results of the land use inventory.

Findings

Through the public participation process, the residents and leadership of the MPC Planning Area have indicated a variety of concerns. Individual comments included concern over the deterioration of the commercial core, preservation of wetlands, appropriate use of the riverfront, and community revitalization. Observations resulting from the physical analysis of land use confirm many public comments. It also establishes the foundation from which changes in the land use pattern can occur to meet Bossier's goals and objectives.

- Bossier City is comprised of approximately 23,420 acres and the entire planning area totals nearly 111,400 acres. Interestingly, Table 5.1 indicates that 37.8 percent of land within the incorporated limits and 19.7 percent of land within the MPC Planning Area is occupied by Barksdale AFB. Inside municipal limits, another 28.4 percent of land is vacant. A significant portion of the vacant and undeveloped land throughout the planning area is hampered by one of several development constraints, as shown in Figure 5.1.

Table 5.1
Existing Land Use
Bossier City-Parish MPC Planning Area

Land Use Category	Bossier City		Bossier Parish		MPC Planning Area	
	Acres	Percent	Acres	Percent	Acres	Percent
Rural Development (RD)	3.4	0.0%	66,964.7	76.1%	66,968.1	60.1%
Low Density Residential (LDR)	4,025.5	17.2%	5,547.7	6.3%	9,573.2	8.6%
High Density Residential (HDR)	411.6	1.8%	42.2	0.0%	453.8	0.4%
Manufactured Housing (MH)	172.8	0.7%	266.0	0.3%	438.8	0.4%
Commercial Office (CO)	129.4	0.6%	37.2	0.0%	166.6	0.1%
Commercial Retail (CR)	1,421.3	6.1%	228.6	0.3%	1,649.9	1.5%
Public/Semi Public (PSP)	8,858.5	37.8%	14,110.6	16.0%	22,969.1	20.6%
Light Industrial (LI)	793.9	3.4%	81.1	0.1%	875.0	0.8%
Heavy Industrial (HI)	236.6	1.0%	172.7	0.2%	409.3	0.4%
Park (PK)	465.2	2.0%	520.1	0.6%	985.3	0.9%
Vacant (V)	6,650.7	28.4%	0.0	0.0%	6,650.7	6.0%
Right-Of-Way (ROW)	252.0	1.1%	--	--	252.0	0.2%
Total	23,420.9	100.0%	87,970.8	100.0%	111,391.7	100.0%

Source: Wilbur Smith Associates

- The MPC Planning Area outside of Bossier City includes significant agricultural development and natural areas. In total, nearly 67,000 acres within the MPC Planning Area (including only 3.4 acres within Bossier City) are designated as rural development. More intense development of much of this area is limited by the need to respect the AICUZ, floodplains and wetlands.

- Land development has followed a wedge pattern that has been formed between the physical **edge** that is the Red River and the AICUZ, which forms a nonphysical

boundary. Rail lines form minor edges throughout the community that act as barriers and traffic constraints.

- A number of **paths** intersect the MPC Planning Area. The interstate system and U.S. Highway 80 provide access in an east-west direction while Barksdale Boulevard, Benton Road and Airline Drive provide north-south access. Limited development has taken advantage of corridor activity. Development that has occurred has remained within the development constraints of the AICUZ.
- The community includes a number of **nodes** that attract residents and visitors. Gaming and entertainment account for nodes among the casinos, at the race track, and at CenturyTel Center. The public sector comprises nodes at the Bossier City Municipal Complex, the hospitals to the north, and the future Bossier Parish Community College. Pierre Bossier Mall accounts for the only commercial node and industrial activity accounts for the node placed at Bossier Industrial Park. Barksdale AFB represents a very significant node with economic and cultural influence on the entire community.
- The base accounts for a significant amount of land within the MPC Planning Area and is significant enough to be categorized as a **district**. Other districts include a number of residential areas, an industrial district and a gaming district.
- Notably absent is a solid commercial district. Commonly commercial activity will be predominant in downtown and possibly clustered in other areas. As previously mentioned, downtown is difficult to demarcate and other commercial activity, with the exception of the mall, is largely strip activity spread out along roadways.
- Commercial activity is not only dispersed in Bossier City, it is generally in short supply. Commercial retail activity in Bossier City comprises only 6.1 percent of total existing land use, even when including uses from the gaming industry. Commercial office space represents less than one percent of municipal land use. Within the remainder of the planning area, the numbers are expectedly smaller. Combined, commercial office and retail space in the MPC Planning Area but outside of Bossier City accounted for less than one percent of all uses.
- Major **landmarks** are difficult to find throughout the MPC Planning Area. Two landmarks, the Louisiana Downs Race Track and CenturyTel Center, are also nodes. The Horseshoe Casino is noted as a landmark as well as a local church with a prominent steeple near the Bossier City municipal complex.
- The pattern of land development is indicative of a community designed for automobile travel. With rare exception, residential development is separated from commercial activity. The street patterns are generally curvilinear and the districts are generally isolated with few points of connectivity. Combined lack of connectivity and intended separation of land uses has resulted in significant strip development activity and limited access subdivisions.
- North Bossier and near vicinity residential areas remain the only "walkable" portions of Bossier – those homes or workplaces in which daily needs are within a ten minute walking distance. The development pattern in this area is more mixed, although the mix may not be entirely appropriate to healthy community development. Even here, commercial activity tends to be developed for automobile activity.
- Housing activity has filtered past the AICUZ and into areas with limited noise impact. Unfortunately, some of this development is occurring in flood prone areas. Other activity is occurring beyond both floodplain and AICUZ. While some development in these areas is planned, such as Dogwood Hills, other activity is reflective of general strip activity.
- Strip development, whether commercial or residential, has become sufficient to spur concerns regarding potential access management issues. Stockwell Place Road is a glaring example of a street that is growing in importance, yet is already faced with the issue of numerous strip residential lots with individual driveways. Development of the area to the rear of the lots will also likely prove difficult.
- Housing accounts for approximately 20 percent of all land use in Bossier City. Housing figures for the total MPC Planning Area indicate that housing represents less than 10 percent of all land; however, this figure is likely low because it does not include housing on Barksdale AFB or scattered, rural housing in the area designated as "rural development." Low density residential development

represents the very vast majority of housing area and accounts for over 8.6 percent of all land uses (17.2 percent in city limits). High density residential development accounts for significantly less than one percent of the planning area.

- Manufactured housing communities, a land use that has raised significant concern during public discussion of the plan, represent less than one percent of all land uses in Bossier City and the planning area.
- The gaming and entertainment industries are spread throughout the community, with casinos showing the only tendency to cluster into a district. Entertainment nodes anchor the east, west and south ends of the urbanized area.
- Proximity between the Schumpert Bossier Healthplex and the Willis-Knighton Bossier Health Center is not sufficient to indicate a district; however, it does create the possibility for a future medical cluster along Interstate 220.
- Industrial activity has intensified into clusters at Bossier Industrial Park and south of Interstate 20 along the rail line. A significant portion of the growth area between the two industrial sites is impacted by development constraints, including a significant wetland.
- Little, if any, buffer exists between industrial activity and other uses, particularly in Old Bossier.

Growth Outlook

As the number of residents, businesses and other facilities continues to grow, the acreage needed to meet demand will also grow. This is particularly relevant because of the numerous natural and manmade constraints on development in the MPC Planning Area. Growth can occur, but if it is to be responsible growth, then the large majority must be strategically located outside of sensitive areas.

Table 5.2, Minimum Future Land Use Allocation, presents a notion of the space necessary to maintain the existing composition of land uses. For example, approximately 1,030 acres in Bossier City were allocated to industrial activity in 2000. Industrial acreage represented 6.2 percent of all actively used acreage in Bossier City (except Barksdale AFB). If residents, business owners and civic leaders are satisfied with the current mix of land uses, then 2020 figures will hold the percentage of total land use dedicated to industrial activity constant at 6.2 percent. As a result, industrial activity will need to increase by at least 73.7 acres over 20 years.

In total, 15,635.4 acres in the MPC Planning Area are currently "actively used" – utilized for uses such as residential, commercial, industrial, or public activity. Land that is currently vacant, used for right of way, or classified as rural development is excluded. Incidentally, Barksdale AFB is also excluded. The air base currently has sufficient room for expansion of operations and its presence drastically skews projections of future need.

Table 5.2
Minimum Future Land Use Allocation
Bossier City-Parish MPC Planning Area

Bossier City					
Land Use Category	Acres	Percent	Acres per 100 Persons	Projected Acreage	Increase from 2000
Residential	*4,609.9*	*53.0%*	*8.2*	*4,939.7*	*329.8*
Low Density	4,025.5	46.3%	7.1	4,313.5	288.0
Hight Density	411.6	4.7%	0.7	441.0	29.4
Manufactured Housing	172.8	2.0%	0.3	185.2	12.4
Commercial	*1,550.7*	*17.8%*	*2.7*	*1,661.6*	*110.9*
Office	129.4	1.5%	0.2	138.7	9.3
Retail	1,421.3	16.3%	2.5	1,523.0	101.7
Industrial	1,030.5	11.8%	1.8	1,104.2	73.7
Public/Semi Public *	1,046.9	12.0%	1.9	1,121.8	74.9
Park	465.2	5.3%	0.8	498.5	33.3
Total**	8,703.2	100.0%	15.4	9,325.8	622.6

MPC Planning Area					
Land Use Category	Acres	Percent	Acres per 100 Persons	Projected Acreage	Increase from 2000
Residential	*10,465.8*	*66.9%*	*18.5*	*11,214.5*	*748.7*
Low Density	9,573.2	61.2%	17.0	10,258.0	684.8
Hight Density	453.8	2.9%	0.8	486.3	32.5
Manufactured Housing	438.8	2.8%	0.8	470.2	31.4
Commercial	*1,816.5*	*11.6%*	*3.2*	*1,946.4*	*129.9*
Office	166.6	1.1%	0.3	178.5	11.9
Retail	1,649.9	10.6%	2.9	1,767.9	118.0
Industrial	1,284.3	8.2%	2.3	1,376.2	91.9
Public/Semi Public *	1,083.5	6.9%	1.9	1,161.0	77.5
Park	985.3	6.3%	1.7	1,055.8	70.5
Total**	15,635.4	100.0%	27.7	16,753.9	1,118.5

** excludes Barksdale Air Force Base*
*** excludes Barksdale Air Force Base, Rural Development, Vacant and Right-of-Way*

Source: Wilbur Smith Associates

Without excluded land uses, approximately 15.4 acres of actively used land are available for every 100 Bossier City residents. In comparison, 27.7 acres of land are available to every 100 residents within the planning area – including Bossier City residents. To maintain the current number of actively used acres per 100 residents, yet account for anticipated population growth, the actively used land within the planning area must increase by more than 1,100 acres to 16,753.9 acres. In Bossier City, the number must increase to 9,325.8 acres. Since vacant land, rural development, and right-of-way currently account for an additional 73,915 acres, it appears that sufficient room should be available to meet residential, commercial, industrial and public needs. Further, intensification and use of existing underutilized land in Bossier City would allow for all growth to occur within municipal limits, although this would be a significant shift from current, dispersed development trends. In both Bossier City and Bossier Parish, a great deal of the land currently underutilized is constrained by location within the AICUZ, floodplains or wetlands. Thus, while sufficient area remains to address growth, the location of such growth will be limited by various development constraints.

Land Use Policies

While specific policies and strategies will be discussed in further detail in *Chapter 12, Policies & Strategies*, several general policies serve as a guide for development of the goals, objectives and actions related to land use. These policies represent sound planning principles that have been developed over time and apply to land use activity in the MPC planning area.

In General

- Potential negative land use impacts (noise, odor, pollution, excessive light, traffic, etc.) should be considered and minimized to protect enjoyment or value of property.
- Development surrounding Barksdale AFB should be sensitive to negative impacts such as accident risk and noise pollution, as well as encroachment upon the viability of air base operations.
- Sensitive development areas such as the floodplain along the Red River and its tributaries and numerous wetland areas throughout the MPC Planning Area should be conserved to the extent practical and utilized to enhance and reinforce the natural amenities of the area.
- Land uses should take advantage of unique features of the community. For example, land use along the Red River should utilize the waterway as a development amenity. Likewise, natural areas should be incorporated into development design.
- Land uses should be arranged to support alternative means of travel such as walking or bicycling from one destination to the next.
- Land uses should be mixed to the extent practical and developed in small, tight-knit clusters particularly to permit residents to meet the majority of daily needs within ten minutes walking distance (approximately one-quarter mile).
- Mixed use development is appropriate for both new development and revitalization efforts, when designed to be complimentary with the surrounding area.
- Adjacent land uses should not detract from the enjoyment or value of properties.
- Adequate transportation access and circulation should be provided for uses that generate high numbers of trips. Pedestrian and bicycle access should be addressed where appropriate.
- Compatibility with existing uses should be maintained in all new development and revitalization efforts.
- Floodplain areas and wetlands should not be encroached upon by future development unless floodplain management standards are met or exceeded. These areas should be used for parks or recreational or related purposes, or for agricultural uses with no adverse impact to the floodplain.

Residential

- Subdivisions should function as neighborhoods with well-defined edges, paths, landmarks, districts and nodes.
- Neighborhoods should include several linkages with surrounding uses.
- Residential areas should not be next to industrial areas without first addressing all of the impacts that commonly make the uses incompatible.

- Houses should have direct access to local streets but not to collector or arterial streets, nor should they be adjacent to major highways.
- Residential and commercial areas may be adjacent if negative impacts such as visual clutter, lighting, signage, outdoor storage and traffic are addressed through methods such as buffering, lighting standards, and setbacks.
- Neighborhoods should be buffered from collector or arterial streets through landscaping, fencing, setbacks, and other protective measures.
- Aesthetic features, views and viewsheds should be treated as amenities during subdivision and neighborhood development, as well as in non-residential development.
- New construction should include a sidewalk and trail system that is comfortable to pedestrian traffic including appropriate distance from the street, landscaping, and street furniture.
- Manufactured homes should be clustered at appropriate sites and provided the same amenities as other single family residential areas, including parks, linkages, connectivity, edges, and gateways.
- Housing should be developed to meet all needs of the community in terms of affordability, availability, adequacy and accessibility.
- Schools, parks and community facilities should be located close to or within residential neighborhoods, as done with Plantation Park Elementary.

Commercial Retail and Office

- Reestablishment of a commercial core for Bossier is significant to establishment of "downtown" as a community focal point.
- Commercial development should be concentrated in nodes at intersections and along major thoroughfares that are designed and constructed to accommodate heavy traffic or serve a specific commercial purpose.
- Neighborhood retail and service uses should be located at intersections of arterial or collector streets, or otherwise appropriately placed within a planned development.
- Neighborhood commercial development should be designed to address both pedestrian and vehicular traffic.
- Commercial uses should be compatible with nearby residential areas and other uses through appropriate building height limitations and adequate buffering, especially where the commercial use involves visible storage or display of merchandise or materials. Low-intensity office and professional uses should provide a transition between more intense uses and residential areas.
- Bossier's commercial areas should include a range of development types to serve regional as well as local needs, from large commercial developments such as the Pierre Bossier Mall to smaller, concentrated commercial sites.
- Major entertainment and gaming amenities, such as Louisiana Downs Race Track and the casinos can serve as anchors for commercial and mixed use development.
- Commercial uses with more intensive operational or traffic service characteristics should be located away from most residential areas.
- Parcels should be large enough to accommodate commercial uses.

Industrial

- Industrial development should be encouraged to locate within an industrial park that can address many of the negative impacts associated with industrial activity, including visual aesthetics, noise, excess light, truck traffic, hours of operation, and parking.
- Industry should occur in clusters with similar needs to maximize efficiency and competitive advantage. Efforts to entice new industry should be based upon local strengths, including relationships with existing industries. Care should be taken to ensure that more than one cluster is created to buffer against single-sector downturns such as have historically occurred in the automobile, oil and gas, and telecommunications industries.
- Industrial development should have good access to truck routes, hazardous material routes and railroads, as is the

case with industrial development in Bossier Industrial Park. Industrial development should have good access to primary streets and major highways, such as Interstates 20 and 220 as well as the proposed I 69 corridor.

- Aesthetic features such as street access, signage, landscaping, and stormwater use/retention should be designed to positively impact the long-term economic strength and efficiency of industrial sites.
- Industrial development should be separated from other uses by buffers, screens, distance and vegetation as necessary to address negative impacts.
- Industrial development should not be directly adjacent to residential areas without significant measures taken to reduce conflict. Utilization of intervening transitional uses such as commercial activity is preferred.

Parks, Open Space and Trails

- Parks should be evenly distributed throughout the MPC Planning Area and include a combination of larger parks and smaller neighborhood parks.
- Parks and natural areas should be recognized as a desirable use for flood prone areas and wetlands.
- Park lands should be utilized to evenly distribute both passive and active recreation activities throughout the community.
- Sensitive environments (such as the area impacted by Barksdale Air Force Base) provide excellent opportunities for open space preservation and low intensity recreation activities and should be dedicated to such uses.
- Parks, natural features and open space should be used to buffer incompatible land uses.
- The arrangement of the park system should promote pedestrian and bicycle linkages between parks, schools, and districts.
- Historical and cultural sites, such as Cane's Landing, should be preserved through incorporation into the parks system.

Community Facilities

- Community facilities should be located adjacent to major streets to accommodate traffic and centrally located in easily accessible areas within the community.
- Community facilities should be designed to the same high standard regardless of construction by public or private development.
- Old Bossier should continue to be enhanced as a civic and cultural entertainment/tourism center.
- Community facilities should be buffered from nearby residential areas as necessary to eliminate conflicts such as traffic, noise, lighting, or hours of operation.

Future Land Use Plan

Change in land use over time is a reality. It is nearly inevitable that a growing urban area, such as Bossier City, will expand. Residents will continue to search for the highest quality of life. Developers will continue to provide their concept of what the market dictates.

The essence of comprehensive planning effort, however, is recognition that residents of the MPC Planning Area do not have to wait to react to growth. Rather, they can determine where and under what circumstances growth should occur. The plan can ensure, through active community support, that growth meets certain standards and that development aids in achieving that high standard of living.

Figure 5.4, Future Land Use Plan is the overall, physical representation of the community's vision for the coming decades. It encompasses themes that are important to quality of life in the MPC Planning Area and strives to meet the needs of the community. It is the general guide for managing growth in terms of the location, type, scale and density of development. As the guide for land development, the Future Land Use Plan captures and develops into policies and regulations the community's values regarding how, when and where the Bossier area should grow in the future. This is significant since the findings and recommendations contained in the plan provide the legal basis for various development ordinances - the major tools available for implementing the plan and achieving an efficient and desirable land use pattern.

As important as understanding the function of the Future Land Use Plan is a realization of what the plan is not. The generalized Future Land Use Plan does not constitute zoning, nor establish zoning districts. The graphic representation on the Future Land Use Plan map is intended to help the City, Parish and MPC elected and appointed officials and Bossier

residents visualize the desired future land development pattern in the community. It is also not a rigid, parcel-specific mandate for how land shall be developed. When proposed development differs somewhat from the generalized land use pattern depicted for an area, it is the responsibility of the MPC, supported by staff, to determine whether the development will be consistent and compatible with the goals and objectives of the plan.

Future Land Use Classifications

The land use categories displayed on the Future Land Use Plan differ in some cases from those on the map of existing land use and from the MPC's Official Zoning District Map. New categories such as Sensitive Development Area and Village Development Area have been incorporated to address development patterns in light of various development constraints in the MPC Planning Area. Other adaptations deal with issues such as mixed use, safety and simplification.

Sensitive Development Area (SDA) – Sensitive Development Areas are those areas that are faced with natural or manmade constraints such as floodplains, wetlands and the flight paths associated with Barksdale AFB. Much of the area identified as Rural Development on the existing land use map is considered an SDA. Agricultural activity, parks and natural areas are preferred SDA uses because of their limited impact on the environment and very low intensity use. However, SDA recognizes that limited development may occur and provides guidelines for location, intensity, layout and design.

Low Density Residential (LDR) – Similar to the Low Density Residential category for existing land use, LDR is designed primarily for conventional single-family detached dwellings, two-family residences (duplexes), town homes and patio homes. The revised classification, however, also supports the concept of limited mixed use that supports the surrounding residential area, including neighborhood commercial development, schools, parks, and churches.

High Density Residential (HDR) – Like Low Density Residential, the High Density Residential category mirrors the similarly named category in existing land use. Uses generally include multiple family dwellings (three or more units) such as apartments, rooming and boarding homes and group quarters, such as nursing homes and assisted living facilities. This category also adds common neighborhood elements such as limited commercial development (including first floor commercial nodes that can function as a central core for the neighborhood), schools, parks and churches.

Manufactured Housing (MH) – The Manufactured Housing category is similar to that used for examining existing land use. Areas designated MH generally include single-family dwellings comprised of mobile homes and manufactured homes (as previously mentioned, the difference between "mobile" and "manufactured" homes is based upon construction before or after June 15, 1976 and incorporated of the HUD Code). No additional areas are proposed for placement of manufactured housing because it is anticipated that new manufactured housing communities will be expected to meet standards similar to those for other residential subdivisions.

Village Development Area (VDA) – A new category, Village Development Area, represents expansive areas that are significantly outside of Sensitive Development Areas and remain mostly undeveloped. To maximize use of the limited number of large, undeveloped areas, the VDA category promotes fine-grained mixed use development that meets the daily needs of area residents, but depends upon "downtown" Bossier for specialized needs and services.

Commercial Office/Retail (CO/CR) – Continuing the trend of mixed use development, the Commercial Office/Commercial Retail category recognizes that office development is most successful when coupled with retail within easy access of office employees. The category focuses upon offices and other commercial uses that are compatible with office uses, including freestanding office buildings, building complexes or business parks. However, it also includes the incorporation of complimentary commercial retail uses, public uses and limited residential uses (such as above business apartments).

Commercial Retail (CR) – This category is similar to the Commercial Retail category for existing land use. CR is commonly comprised of restaurants, hotels and motels, service stations, general retail shops, shopping centers, department stores and other retail establishments. In the case of Bossier, it also includes gaming establishments, such as casinos and the horse track. Like other future land use categories, CR is designed to incorporate additional uses such as office development, public uses and limited residential uses (such as above business apartments).

Public/Semi-Public (PSP) – Similar to the Public/Semi-Public category for existing land uses, uses within the PSP category

include schools and government buildings and semi-public uses such as churches, hospitals, cemeteries, community facilities, clubs/lodges and other places of assembly.

Industrial (I) – The Industrial category combines activities of both light and heavy industry. Uses such as office/warehouse, wholesale, product assembly, and light manufacturing are included with heavier uses that often include outdoor storage, display and work activity. Unlike other future land use categories, the Industrial classification does not promote significant mixed use development.

Park (PK) – Parks includes existing public parks, outdoor recreation areas, publicly-owned undeveloped land, and open spaces that are committed to public or private enjoyment. It also includes limited proposed park areas.

Rights-of-Way and Easements (ROW) – Right-Of-Way is public land that is separated from other public and semi public land uses because it serves as transportation or utility corridors. Predominately, this category includes surface features such as roadways, railroads, drainage ways, buried utilities and pipelines, as well as communication and electrical transmission lines.

Air Installation Compatible Use Zone Overlay (AICUZ) – The AICUZ Overlay is designed to ensure awareness that locations within the flight path of Barksdale AFB are subject to impacts such as significant noise and potential safety risk. Sites within the overlay will generally require significantly reduced density to comply with recommendations suggested by Barksdale AFB.

Accident Potential Overlay (APO) – A part of the AICUZ, the Accident Potential Overlay addresses the Accident Protection Zones that are within proximity to the air base runways. The overlay reflects the necessity to reduce density, height and uses even more than that permitted by the AICUZ because safety concerns are increased.

Key Features of the 20-Year Land Use Plan

Some of the highlights and priorities of the Land Use Plan include:

Barksdale Air Force Base and AICUZ

While it is important to grow, it is likewise imperative that development pressure not impact the ability for Barksdale Air Force Base to continue standard operation without complaint or encroachment. The Future Land Use Plan proposes land uses within the AICUZ, particularly the Accident Potential Zones, that are compatible with recommendations established in the *Joint Land Use Study Bossier City, Louisiana*. Recommendations for industrial and commercial development within the AICUZ are an extension of activity that is already occurring as a result of proximity to major thoroughfares and historic strip development. Residential development that is currently in existence within the AICUZ is not proposed to be removed, but additional residential development is recommended to be significantly restricted.

An area that is adjacent and to the north of the air base is currently vacant. A significant portion of the area rests in between the areas that comprise the AICUZ. Within this area, it is proposed that additional residential development be located. The area represents the few sites near Barksdale AFB that are not within the AICUZ or another environmentally sensitive element, such as floodplains and wetlands. Adjacent areas that fall within the AICUZ are proposed to be natural areas, well designed industrial sites, or another acceptable use.

Natural Areas

A significant amount of available land in the MPC Planning Area is comprised of wetlands and flood prone areas. The most efficient means of protecting sensitive areas such as these is to maintain them as natural or agricultural areas. In doing so, the natural beauty and rural atmosphere surrounding the urbanized area is protected and utilized as a tremendous marketing tool promoting area quality of life. Natural areas such as those along the Red River offer connectivity with other areas of the community without the need to travel by road. Active and passive recreation areas can utilize spaces that occasionally flood.

Despite concerns regarding flooding, it is likely that limited residential development will continue to occur within sensitive areas. In those cases, appropriate neighborhood design can minimize the impact upon the environment through large lot development or "conservation subdivision techniques".

Large lot development is a common requirement in rural areas that achieves low density by scattering homes evenly throughout a development and encourages significant surrounding open space. Conservation Subdivision Techniques is a less common, but significantly more effective

means of conserving large open spaces, preserving rural character and meeting a high standard of subdivision design. While the concept will be discussed at length in *Chapter 12, Policies & Strategies,* the concept includes utilizing the most suitable sites on a parcel for clustered housing while leaving the remaining area as a shared, significantly larger open space.

Cane's Landing

Several plans have been conducted to address Cane's Landing. Each proposes to maintain a significant natural area at the site and includes amenities such as a marina, amphitheater, lake, and significant open space. Additionally, a recent project called Riverwalk proposes to utilize a portion of Cane's Landing for a major entertainment center. The Future Land Use Plan continues this theme of recreation, entertainment and proposes that the area become a community park with numerous amenities, unless utilized as part of the Riverwalk project. Otherwise the plan also envisions the added feature of high density housing mixed with commercial development. By adding commercial and dense residential uses, the plan creates a more dynamic district in North Bossier while still providing a major natural amenity.

As part of a major park system or part of the Riverwalk project, an improved Cane's Landing will establish another focal point along the Red River. Both visions reinforce the notion that Bossier should pursue a reputation as a center for regional recreation and entertainment.

Commercial Core

While shopping centers, the automobile and distant suburbs have made downtown less relevant as a destination for many American communities, it continues to be a cultural and economic focal point. Bossier may not currently have a solid commercial core, however, it has a number of characteristics that indicate that a commercial core can be developed.

The Future Land Use Plan proposes a core area comprised of Commercial Office and Commercial Retail uses to be located between Barksdale Boulevard and the rail lines near Bossier High School. Through extensive redevelopment efforts and design guidelines to maintain appearance and quality, the area has the possibility to become a marketable, modern, "downtown".

Dynamic Districts and Neighborhoods

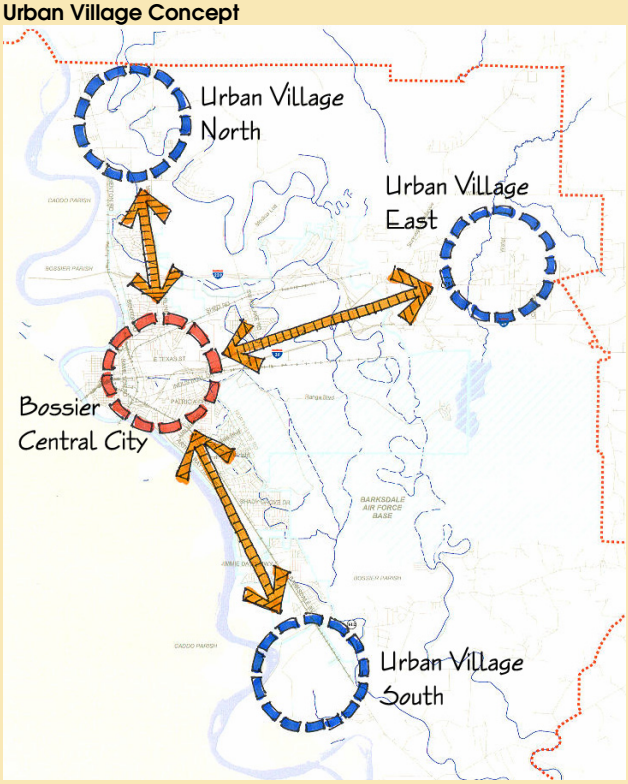
With limited space available for significant expansion near the central city, the Future Land Use Plan proposes that significant investment and effort be placed in transforming "at risk" existing neighborhoods, subdivisions and commercial areas into dynamic, interconnected, marketable areas with enhanced quality of life. Several of these areas are currently in transition or at risk of becoming distressed. Neighborhoods such as North Bossier provide excellent proximity to services, but suffer from overall encroachment by inappropriate commercial activity, loss of neighborhood services, changes in housing demand, and lack of significant reinvestment. Shady Grove meets the housing needs of its residents, but potentially lacks reinvestment and does not have the mixed development necessary to support the daily needs of residents. Commercial development along Benton Road follows the roadway without the depth needed for movement between commercial establishments without a vehicle. More, structures are designed to address street traffic and ignoring interconnectivity with surrounding residential areas. However, through revitalization efforts, the same corridor can become a cohesive district that is both aesthetically appealing and an increased economic benefit to property owners and the community.

Linked Urban Village

Several areas within the MPC Planning Area have been designated as Village Development Areas. As indicated in **Figure 5.5, Urban Village Concept**, each is located outside of the municipal boundaries of Bossier City, is connected to the urban area through a major thoroughfare and has limited development constraints that can be overcome through sensible design. Additionally, these areas are distant from the urban core of Bossier, offer little to meet the daily service needs of potential residents, remain largely undeveloped, and represent the vast majority of land within the planning area with few or no development constraints.

The Future Land Use Plan proposes significant new development in these areas be patterned after the form and use patterns of the urban village. Unlike typical subdivision development, the urban village concept promotes dynamic, mixed use development that focuses on meeting the daily needs of area residents in a manner that promotes economic efficiency and builds "social capital." The urban village promotes tight-knit development that spurs pedestrian

Figure 5.5
Urban Village Concept



Source: Wilbur Smith Associates

activity. The center of the village commonly includes commercial and public uses sufficient to act as a gathering place for the community and provide for the daily service needs of residents. Its increased density allows for compact development and leaves sufficient room for expansion that is cost effective and interconnected with other areas through a number of different pedestrian and vehicular paths.

While these villages will be designed for daily self-sufficiency, they will continue to rely on the revitalized commercial core for specialized services and other areas for employment opportunities.

Bossier "Playground"

If the MPC Planning Area were to adopt a theme for economic activity, it would likely need to build upon existing recreation and entertainment opportunities in the area to become a regional tourist destination. The gaming industry has established a significant presence in the community and its economic impact is already becoming obvious. Louisiana Downs and CenturyTel Center provide added entertainment venues located at different locations in Bossier. The result is three regional draws for tourists based upon the notion of relaxation and entertainment.

The MPC Planning Area also includes substantial natural amenities in the Red River, its tributaries, and the surrounding natural areas that are difficult to develop due to flood potential. Revitalization of the riverfront is already well underway. With improvements to Cane's Landing, Bossier may be able to add water and active recreation related activities. Development of continued greenspace along the waterway, as proposed on the Future Land Use Plan, could add passive and active recreation opportunities for both area residents and visitors.

As noted on the Future Land Use Map, the Commercial Retail area around the casinos has been expanded to enhance the visitor's experience with added shops, restaurants, or other entertainment activities. The areas surrounding the CenturyTel Center and Louisiana Downs Horse Track are proposed to include complimentary activities to also strengthen these areas as focal points.

Medical District

Both Willis-Knighton Bossier Health Center and Schumpert Bossier Healthplex are located along Interstate 220 between Benton Road and Airline Drive. Within strategic investment, the two medical institutions could serve as anchors in a district designed to serve the community's medical needs. Too, the area serves as a crossroads for three major arterials in the community, raising the possibility of future commercial retail development.

Arena District

CenturyTel Center serves numerous design functions for the community. It serves as a landmark that is perhaps the most recognizable entity in the area. Because of its function as a major entertainment center, it also serves as a node that attracts both local and regional visitors. It is also sufficient to serve as an anchor for significant investment in south Bossier. An Arena District poses a number of possibilities for the area, all of which have the potential to increase the dynamic nature of the area and spur added development. Added entertainment venues could strengthen the areas value as a regional recreation and entertainment center as well as link with the gaming sites and Cane's Landing via Arthur Teague Parkway. High density housing would add a strong residential component that would be highly marketable because of

easy access into employment areas of Bossier and Shreveport, as well as the amenity of riverfront development. Commercial office and retail establishments could meet the needs of the District and the surrounding area. A mixed development, as is proposed in the Future Land Use Plan, could build upon all of these advantages.

Relationship Between Future Land Use Plan and Zoning

The zoning ordinance and map should not be confused with the existing and future land use maps. The zoning map, as shown in **Figure 5.6, Existing Zoning**, expresses the permitted use of the property in accordance with the Zoning Ordinance for the district in which it is located. In some cases the current use of the property is not a permitted use, having been in existence prior to the adoption of the Zoning Ordinance. The Existing Land Use Map reflects how the property is currently being used, not how it is zoned.

The Future Land Use Plan is a general plan for future land use and development. The future land use plan does not attempt to predetermine the use of each individual tract, but establishes a logical framework for future land use areas and development decisions. Although they should not be confused with each other, the official Zoning Map and the Comprehensive Plan are tied together. L.R.S. 33:4723 requires zoning regulations be made in accordance with a comprehensive plan; with reasonable consideration of the character of the district and its peculiar suitability for particular uses; and with a view to conserving the values of buildings and encouraging the most appropriate use of land throughout the municipality. Therefore, the MPC should ensure that all future developments within the Planning Area is in accordance with Future Land Use Plan.

With that in mind, a general comparison between the Future Land Use Plan and existing zoning indicates some points worth note:

- Generally, land uses will remain the same, particularly within Bossier City; however, areas directly outside of the municipal boundaries to the north, south and east will likely require significant change.
- Certain aspects of the zoning ordinance will need to be altered. For example, the land use element proposes added flexibility that may need to be reflected in revised ordinances, such as the ability to include limited neighborhood commercial development in strategic locations within residential areas. Changes will also be necessary to address the density and open space requirements of both urban villages and conservation subdivision techniques.
- The Future Land Use Map indicates Sensitive Development Areas throughout the MPC Planning Area while the existing ordinance does little to protect areas such as the AICUZ, floodplains and wetlands. At the same time, the Future Land Use Map proposes that many of the areas designated as residential, commercial, public or other use that are surrounded by Sensitive Development Areas be left to their current use. Under ideal circumstances, these sites would also be considered as Sensitive Development Areas. A compromise option is to create a Sensitive Development Area overlay that will protect all of the rural area. The same overlay can also be utilized to differentiate urban character from rural character.
- Land use directly north of Barksdale AFB but south of I-20 is proposed to change to include expanded industrial activity, residential development and limited open space in the area that is within the AICUZ. The area is currently zoned to include I-2 and R-A.
- The area surrounding the intersection between I-20 and I-220 includes surrounding commercial development anticipated from the combination of new village development proposed to the east, the presence of Louisiana Downs, development of the new campus for the community college, and expanded industrial development to the south and west. The area is also proposed to include multi-family activity in anticipation of the community college. This site currently zoned as a mix of I-1, B-1, B-3, R-A, and RT-3.
- Sites north of Texas Street are proposed to include existing uses, as well as increased high density residential activity. Again, this is in response to the new campus for the Bossier Parish Community College. This area is generally zoned as a mix of B-2, B-3, R-2, and R-A.
- Areas within the Bossier City limits that are currently undeveloped but within floodprone areas or the AICUZ are largely proposed to be limited to low intensity development, if not preserved for open space. Majority of the areas proposed are currently zoned R-A.

- Intersections of I-220 with both Airline Drive and Benton Road are anticipated to be developed commercially and preferably in a manner that supports the nearby medical facilities. Added development to the west of city limits proposes expanded commercial activity that transitions to high density residential and then to low density activity closer to the Red River. The sites are currently zoned R-A, B-2, B-3, and I-2.
- The area surrounding the Arena District is proposed to include a mix of various commercial office and retail uses combined with high density residential development. The unincorporated area adjacent to the site that is east of Barksdale Boulevard and nestled between residential activity is proposed to include added residential development and park space. The area of discussion is currently zoned R-A, B-3 and I-1.
- Three areas outside of municipal limits have been proposed as urban villages. These sites occur directly north of city limits along Benton Road and Airline Drive, south of city limits along Barksdale Boulevard (largely west of the road), and east beyond Red Chute Bayou. Since these areas will include a mix of daily commercial activity, high density commercial, low density commercial, park space, natural area, and public use, it may require creation of a new zoning district. The areas are currently zoned R-A.

Implementation and Updating of the Future Land Use Plan

The Future Land Use Plan is a general guide for future land use and development decisions in both the private and public sectors - decisions that are typically made simultaneous to other decisions regarding the provision of adequate public facilities, services and infrastructure improvements. In implementing the Plan, the MPC is encouraged to look to its Future Land Use Plan and established goals, objectives and actions. When administering its development ordinances, the MPC should ensure that new development and redevelopment is consistent with these standards. Individual land development proposals should be considered in the context of neighborhood and individual site factors.

Per LRS 33:106, as development of the master plan progresses, a commission may from time to time adopt and publish a part or parts thereof, any such part to cover one or more major sections or divisions of the parish or municipality, as the case may be, or one or more of the aforesaid or other functional matters to be included in the plan. A commission may from time to time amend, extend, or add to the plan. Updates "from time to time" should be inferred to mean that the plan should be evaluated compared to current conditions, at minimum, every five years. However, it is advisable that the MPC, Bossier City and Bossier Parish develop a process that annually reviews the Plan for minor changes that will improve the Plan and allow it to grow with the community.

Parks & Open Space

Louisiana's "Official Tour Guide" refers to Northern Louisiana as "*Sportsman's Paradise…perfect for hunting duck, deer and fortunes… Sportsman's Paradise is filled with museums, parks, sporting and cultural events.*" The Guide also references Northern Louisiana's continued rapid growth. Balancing the demands of rapid growth with a desire to preserve and protect Bossier's precious natural resources and open space areas resulted in the need to plan comprehensively to appropriately manage its limited resources. The leadership of Bossier understands the foresight and preparedness necessary to plan the future responsibly.

A comprehensive and integrated system of parks and recreation opportunities that responds to the needs and values of the residents is an essential part of a quality living environment. A well planned, managed and funded system of parks and public open spaces will help the City and Parish:

- attract and sustain quality development;
- contribute to improved community health;
- enhance the enjoyment and quality of life of residents and visitors;
- provide a variety of active and passive recreational activities for all persons; and,
- preserve and enhance the quality and integrity of the natural environment.

The parks and recreation system and natural environment also are an attraction for visitors, which contribute to local tourism and economic development.

The purpose of the Parks and Open Space Element of the Bossier Comprehensive Land Use and Development Master Plan is twofold. First, it is to evaluate the environmental resources of the planning area to ensure long-term conservation and protection of the unique and valued environmental attributes of the City and Parish. Secondly, it is to evaluate the parks and recreation system so as to ensure that adequate parks, recreational facilities, and open spaces are provided and accessible for the citizens and visitors of Bossier.

Parks and Recreation Planning Principles

The following parks and recreation planning principles are integrated into this chapter to ensure a balanced emphasis on the public and private sectors; indoor and outdoor opportunities; and, the integration of space, services, and facilities:

- All people should have **equal access to recreational areas, activities, services, and facilities** regardless of personal interest, age, gender, income, cultural background, housing environment, or handicap;
- Public recreation should be **highly coordinated among public institutions and private entities** to avoid duplication and encourage cooperation;
- Public recreation should **incorporate public services** such as education, health and fitness, transportation, and leisure;
- Facilities should be **well-planned and coordinated** to ensure adequate adaptability to future needs and requirements;
- The availability of **financial resources should be an ongoing consideration** through all phases of planning, acquisition, development, operation, and maintenance of spaces and facilities;

Introduction
Area Profile
Vision & Goals
Market Assessment
Land Use
Parks & Open Space
Transportation
Utilities & Infrastructure
Housing
Image & Design
Facilities & Education
Policies & Strategies
Implementation

- The planning process should offer continuous opportunities for **incremental evaluation and review**;
- Existing **plans should be routinely considered and integrated** into the decision-making of private landowners, civic organizations, the business community, recreational interests and other area agencies to ensure a comprehensive and coordinated system of public areas and preserved natural resources;
- There should be **established procedures for acquiring land** for future parks and recreation areas and facilities well in advance of ensuing development; and,
- The design of spaces and facilities should encourage an **efficient utilization of land** and consider the needs, desires, and opinions of the intended users.

Key Parks and Recreation Issues

Public participation was instrumental in the process of preparing the plan for future parks, recreational facilities, and environmental conservation. The input of local stakeholders was used to understand the needs and desires for enhancement of the existing facilities as well as planned future improvements. During the community meeting series held in September 2001, input was solicited from residents of Bossier City and Bossier Parish. The numerous comments received and issues identified are reflected in the goals, objectives, and actions of this chapter. The public comments, coupled with the input of local stakeholders, members of the Master Plan Advisory Committee (MPAC) and City-Parish staff resulted in the following key issues:

"People, even today, want to get away from the noise and confusion of daily life and want to do so on their own. It is not enough for a parks department to offer structured recreational activities. People need to have a place where they can go to stroll or lie in the grass or bicycle whenever the mood strikes them and not just when it is a scheduled activity."

- Alexander Garvin in "Parks, Recreation, and Open Space: A Twenty-first Century Agenda"

Natural Resource Conservation

As illustrated in Chapter 2 - Area Profile, the Bossier City-Parish MPC planning area is rich with natural resources. While these areas are sensitive to urban development, they offer opportunities to fulfill other community objectives such as environmental conservation and sound resource management. Throughout the public involvement process there were multiple comments regarding a desire for more green space and an increased value on the area's natural resources. Efforts to merge environmental conservation and adequate provision of parks and open space into the development process will result in responsible land management and use.

Parks and Recreation Opportunities

To support the stated desires of community residents, as articulated in the community meetings, recreation and open space opportunities should be convenient and readily accessible to all persons in the City and Parish. This is accomplished through development of a balanced and evenly distributed park system that provides active and passive recreation for young children and mature adults, for all levels of income, and for all races and ethnic backgrounds.

Connections and Linkages

A "system" of parks and recreation areas is not complete without linear linkages between facilities and connections to neighborhoods, schools and other public use facilities. While the areas along rivers, streams and bayous are subject to flooding and undesirable for development, they are ideal as pedestrian linkages and bike trails between parks and other community attractions. Use of excess rights-of-way along streets, alleys and railroads; utility and drainage easements; and shoulders and wide travel lanes on arterial roadways each offer the benefit of linkages between facilities. Connecting public parks and green areas creates an interconnected system of public spaces that are highly desirable in the Bossier planning area.

Creating Partnerships

Aging infrastructure, changing demographics, and increased demand for recreation programs and facilities have strained the limited resources of local governments and other public entities. Intergovernmental agreements and public-private partnerships create opportunities to use tax-dollars wisely, utilize land efficiently, and conserve precious environmental resources. Joint acquisition, development and ongoing maintenance of public spaces leverages additional resources. Collaboration and coordination among agencies is of mutual benefit for all

interests. It eases the burden on public tax dollars and enhances the quality of areas and facilities.

Adequate Funding

Unfortunately, the funding for parks and recreation is often a lesser priority in comparison to water, wastewater and drainage facilities and safety sensitive services such as fire and police protection. However, parks and public open areas are equally important forms of public infrastructure. While funding for the primary public facilities and services demand sufficient funding to avoid failing conditions, the dollars available for parks and recreation are less certain. Identifying a dedicated funding source and effectively leveraging state and federal grant funds is important to developing and sustaining an adequate parks and recreation system.

Natural Resources, Parks and Recreation Goals, Objectives and Actions

The following summary of goals are designed to complement the goals and objectives of previously adopted plans, such as the recently published Bossier City Five-Year Park Recovery Action Program, which was prepared in 2001 by the City of Bossier City Mayor's Office. The following goals and objectives were developed to incorporate the views and values of the citizens who participated in the community meeting series conducted as part of the comprehensive planning process.

An overview of the parks and recreation goals is as follows:

- Promote the conservation of natural resources through park and recreational land acquisition, open space preservation, and environmentally sensitive planning.
- Provide a diverse blend of parks, recreation and open space areas throughout the City and the MPC planning area.
- Encourage the preservation of open space to reflect the unique resources of Bossier's natural environment and to enhance the community's livability, aesthetic quality, and natural beauty.
- Expand and enhance youth and recreation programs to meet the current and future needs of the City and Parish
- Promote water activities and programs such that all persons have equal access and opportunity to enjoy the recreational value of local water resources.
- Continue the parks and recreation area improvement program, including maintenance, renovation and/or redevelopment of existing and new public parks and facilities.
- Develop an on- and off-street network of pedestrian and bicycle ways, nature trails and linear linkages throughout the MPC planning area.
- Establish cooperative agreements and coordinated efforts with other governmental jurisdictions, educational bodies, and private sector entities.
- Identify dedicated funding sources for the acquisition, development, operation and maintenance of parks and recreation areas, facilities, programs and activities.

The overall goal for Bossier's parks and recreation system is to identify, protect, and enhance the natural and built environments and the image of Bossier by providing a diverse blend of parks and open spaces, creating recreational opportunities, and preserving irreplaceable natural resources that contribute to Bossier's rich heritage.

Natural Resource Conservation

At the heart of Sportsman's Paradise, the region possesses a significant inventory of valuable habitat to a variety of animal and plant species. Encroachment on these

Wetlands provide extraordinary natural and beneficial functions for the Bossier area, and should be maintained to sustain wildlife habitat, increased water quality and increased flood storage capacity.

> *"The natural resource base of a community plays a large role in the ultimate character of the park system."*
>
> *- Park, Recreation, Open Space and Greenway Guidelines, NRPA*

environments by urban development can have devastating effects. Through innovative land planning and sound resource management, these areas can be preserved and effectively integrated into subdivisions without compromising private interests. Likewise, restoration of natural areas such as wetlands and forests on open parcels of urban parkland or blighted urban lands can become a catalyst for positive redevelopment and additional tax base enhancement.

Including conservation land in the public park system provides space for extensive, dispersed recreation use while protecting the natural function that the natural resources serve, such as flood storage or erosion control. Preservation of these lands often protects vital ecological process, and landscapes such as flood plains; wetlands; meadows; community forests; aquifer recharge areas; wildlife or plant habitat; archaeological, cultural and historical sites; and agricultural landscapes. Conservation corridors also serve as valuable pedestrian linkages between developed park sites as well as between parks and residential areas.

Goal 6:1: Promote the conservation of natural resources through parks and recreation land acquisition, open space preservation, and environmentally sensitive planning.

Objective A: Encourage the conservation of environmentally sensitive areas, i.e. streambeds and floodplains, wetlands, wildlife habitats, historic and cultural sites, and areas with topographic conditions or severe soil limitations, and encourage conservation through development incentives, regulations and policies adopted mutually by the City and Parish.

Action 6.1.1: Identify and acquire environmentally sensitive areas and conservation sites to preserve as public open space or recreation areas.

Action 6.1.2: Develop a "land-bank" program in which owners of properties in the flood plain are encouraged to deed their land to the "bank" to ensure long-term conservation.

Action 6.1.3: Acquire conservation easements along the Red River, Willow Chute Bayou, Red Chute Bayou, Flat River and other bayou tributaries (Mack's Bayou, Cooper Bayou, Allison Bayou, Alligator Bayou, Fifi Bayou, Connell Bayou, Racetrack Bayou, St. Charles Bayou) and other sensitive lands to protect valuable resources from encroaching development.

Action 6.1.4: Provide development incentives, regulations and policies to encourage the preservation of open space by individuals, corporations, non-profits and public agencies to enhance the livability, aesthetic value and natural beauty of the City and Parish.

Action 6.1.5: Identify the boundaries of the regulatory floodways and consider acquisition through fee-simple or conservation easement methods prior to development, if possible.

Action 6.1.6: Utilize the City-Parish Flood Hazard Mitigation Plan to identify areas of repetitive structure flooding where mitigation activities may result in publicly owned open space.

Action 6.1.7: Create development incentives to encourage preservation and dedication of public parks, open space or conservation easements within subdivisions.

Action 6.1.8: Amend the City and Parish Subdivision Regulations to encourage the use of conservation

Natural resource areas are one of the region's greatest assets.

subdivision techniques, which allow flexibility in lot size, setbacks and other area standards to increase open space, preservation of natural areas, and set-asides for wetlands and other sensitive habitat areas.

Action 6.1.9: Protect the waterfront landscape from encroaching, harmful development while preserving the integrity of the natural environment with natural shorelines and sensitive parks and recreation development and conservation.

Action 6.1.10: Preserve the environmental quality of the Red River and its bayou tributaries as well as area lakes and water bodies by protecting valuable open space and habitats, improving drainage and water quality, and providing sensitive eco-recreational facilities.

Parks and Recreation Opportunities

During the community meetings, area residents expressed their desire for a well-distributed system of parks and recreation areas. A balance of playlots (pocket parks), neighborhood playgrounds and parks, community playfields, parks and greenbelts and open areas will improve accessibility to families throughout the City and the MPC planning area.

A true "system" of parks offers of range of public areas including large centralized facilities intended for persons within one-hour driving time, community wide facilities, neighborhood-level parks and open areas that are within convenient walking distance, and small playlots for densely populated areas. The value of an adequate park system is in its ability to meet the individual needs of all persons.

Goal 6.2: Provide a diverse blend of parks, recreation and open space areas throughout the City and the MPC planning area.

Objective A: Accommodate the current and future needs of Bossier's residents and visitors by providing small playlots, neighborhood play areas and large community parks.

Action 6.2.1: Develop an even distribution of parks and recreation facilities throughout the planning areas that will provide equitable opportunities and convenient access for all citizens.

Action 6.2.2: Acquire and develop 58 acres of neighborhood and community parks within the identified deficiency areas of Bossier City to meet the current parks and recreation system demand.

Mike Wood Park is Bossier City's largest "community" park, which offers both active and passive recreation facilities.

Action 6.2.3: To meet the current demand for parks and open space within the five-mile planning area, acquire and develop 166 acres of land in the developed and developing areas of the MPC area.

Action 6.2.4: To meet the projected future demands within the City and Parish, based upon a projected population of 96,000 persons, acquire and develop concurrent with development 118 and 223 acres, respectively.

Action 6.2.5: By the Year 2020, aim to comply with the minimum standards for each park classification both within the City and the MPC planning area.

Action 6.2.6: Acquire lands within future growth areas for parks and recreation facilities, public open space and conservation areas in advance of ensuing development.

Action 6.2.7: Acquire excess rights-of-way, vacated alleys and easements, areas beneath overhead power lines, irregularly-shaped parcels and other non-developable parcels for utilization as playlots and public open space.

Action 6.2.8: Establish a park dedication ordinance, an exaction of land or cash, or impose a parks and recreation impact fee to ensure adequate parks and open space concurrent with development within the City and Parish.

Action 6.2.9: Establish provisions to allow reductions in park acreage in exchange for golf courses and other development amenities that are available and accessible to the general public.

Action 6.2.10: Prepare a parish wide parks, recreation and open space master plan to incorporate the Bossier City Ten-Year Recovery Action Program and the Bossier City-Parish Master Plan, with the specific needs for facilities and improvements within the Parish.

Goal 6.3: Encourage the preservation of open space to reflect the unique resources of Bossier's natural environment and to enhance the community's livability, aesthetic quality, and natural beauty.

The Bossier City Municipal Complex is a good example of preserving public open space.

Objective A: Create an attractive living and "green" living environment by preserving open space within neighborhoods, along roadways and natural corridors and key character areas throughout the City and Parish planning area.

Action 6.3.1: Establish development incentives to encourage dedication of open space easements adjacent to collector and arterial street rights-of-way, along bayous and other watercourses, and within major developments.

Action 6.3.2: Consider the use of a density bonus program that rewards increased density for greater open space, increased setbacks, preservation of natural areas, provision of natural amenities and set-asides for wetlands and other sensitive habitats.

Action 6.3.3: Incorporate open space into the entrances to the City and unique areas within the Parish, as well as acquiring land for open space along major transportation corridors to visually enhance those corridors and promote regional recognition.

Action 6.3.4: Increase public open space in flood prone areas through acquisition, relocation and demolition of flood damaged and repetitive loss structures.

Goal 6.4: Expand and enhance youth and recreation programs to meet the current and future needs of the City and Parish.

Objective A: Provide for the recreation and education of youth throughout the City and Parish planning area.

Action 6.4.1: Coordinate with the Bossier Parish School Board to expand after school programs for youth to include a range of activities for all ages.

Action 6.4.2: Coordinate with social service providers, civic clubs and other organizations to co-sponsor ongoing programs and special events.

Action 6.4.3: Advertise and promote youth and recreation programs to inform the public of ongoing and special programs and activities.

Action 6.4.4: Provide adequate resources for youth programs to support organization and coordination efforts.

Goal 6.5: Promote water activities and programs such that all persons have equal access and opportunity to enjoy the recreational value of local water resources.

Objective A: Capture the value and natural assets of the area by improving visibility and enhancing public access to the Red River and other water resources.

Action 6.5.1: Coordinate with the Red River Waterway Commission to further enhance and expand the Ray Arthur Teague Greenway south to the CenturyTel Arena and north to the Riverwalk development. Continue the greenway along the river throughout the planning area and parish.

Action 6.5.2: Provide public access to local bayous and waterways such as the Red Chute Bayou and Willow Chute Bayou.

A boat launch was recently added to the Arthur Ray Teague Parkway Greenspace, which promotes water activity and provides public access to one of Bossier's greatest assets.

Action 6.5.3: Continue to improve public access to the Red River with recreation easements, boat ramps, fishing docks and public activity areas.

Action 6.5.4: Amend the subdivision regulations of the City and Parish to incorporate provisions for cross access and public right-of-way connections from neighborhoods to the river, bayous and other natural resource areas.

Goal 6.6: Continue the parks and recreation area improvement program, including maintenance, renovation and/or redevelopment of existing and new public parks and facilities.

Objective A: Sustain the quality condition and attractive appearance of public areas and facilities with an aggressive maintenance program.

Action 6.6.1: Utilize the recommendations of the Ten-Year Park Recovery Action Program to adequately maintain and improve the parks within Bossier City.

Action 6.6.2: Utilize the recommended parish wide master plan to determine development and improvement needs and establish an action plan.

Action 6.6.3: Conduct annual physical condition assessments of the existing parks and recreation grounds and facilities to identify necessary improvements and to determine the level of financial commitment required to make necessary improvements.

Action 6.6.4: Develop a City-Parish operation and management plan for development of facilities and delivery of parks and recreation services, including a continuous maintenance plan with scheduling and personnel tracking.

Action 6.6.5: Provide adequate funding and resources to perform necessary maintenance and repairs and to construct needed improvements at existing and future parks and recreation facilities.

Action 6.6.6: Establish a "Friends-of-the-Park" program to solicit neighborhood involvement in maintaining and policing the public parks.

Connections and Linkages

An interconnected system of bicycle and pedestrian facilities serve as a form of recreation and exercise and have an added benefit as an alternative mode of transportation. Through the community meetings, residents of the City and Parish expressed a desire for a system of nature trails and bike lanes/routes that connect the area's parks, schools, neighborhoods and public buildings. Trails and linkages allow for relatively uninterrupted pedestrian movement to and through the park system and protect users from busy development areas and associated vehicular traffic.

Goal 6.7: Develop an on- and off-street network of pedestrian and bicycle ways throughout the MPC planning area.

Objective A: To improve access to and throughout the park system, provide an interconnected system of paths, trails, lanes, and routes that are multipurpose, accessible, convenient, and connect to residential neighborhoods, parks, schools, workplaces, major open spaces, and other destinations.

Action 6.7.1: Prepare a pedestrian and trail master plan to identify specific routes, development standards and criteria, engineering specifications and a phased implementation plan.

Action 6.7.2: Identify potential greenbelt corridors, bicycle and pedestrian trails and routes and linear parks that can provide a safe and secure connection between parks, schools, neighborhoods and open spaces.

Greenbelts and pedestrian ways are an amenity to neighborhoods, provide public access to other areas and facilities and contribute to pedestrian mobility in the community.

Action 6.7.3: Utilize rights-of-way, easements, natural drainage courses, the Red River and its bayou tributaries for nature trails to link the City's parks and recreation areas.

Action 6.7.4: Extend the nature trail within the Arthur Ray Teague Greenway to connect to downtown and other neighborhoods and activity areas such as the CenturyTel Arena and the planned Riverwalk development.

Action 6.7.5: Establish policies and regulations regarding the use and development of floodways and drainage ways, abandoned railroad corridors, vacated alleys, and other rights-of-way and easements.

Action 6.7.6: Submit applications for federal grants through the Transportation Equity Act for the 21st Century (TEA-21) and other available programs to leverage funds for bikeway and trail planning and development.

Action 6.7.7: Establish incentives and standards for developments adjacent to the Red River and other bayous and waterways to dedicate recreation easements for public use.

Action 6.7.8: Identify minor arterial, collector and local residential streets that are suitable for bicycle traffic and the designation of bicycle routes or lanes.

Action 6.7.9: Develop a tourist trail connecting monuments, museums and landmarks that are of historic or cultural significance to the City and Parish.

Creating Partnerships

A systems approach to regional parks and recreation planning requires collaboration, communication and coordination among all vested entities and interested parties. Through agreements created between governmental and other public agencies as well as partnerships between the public and private sectors, the parks and recreation system benefits in its quality and affordability. Joint acquisition, construction, ongoing operation and maintenance allow efficient use of public dollars while ensuring that facilities are coordinated and connected.

Levees, bayous and drainage ways and other easements present opportunities to make connections between parks, neighborhoods and other public activity areas.

As seen by the increasing participation trends of area facilities, with park patronage exceeding 9,000 users in 2001 and 2,140 youth participants and 171 adult teams participating in baseball, basketball, football and softball programs, it is essential that partnerships are created to generate adequate support for the recreational needs of the region. Such elements are already being formulated through the creation of the Bossier Parish Recreation Facilities Advisory Group.

Goal 6.8: Establish cooperative agreements and coordinated efforts with other governmental jurisdictions, educational bodies, and private sector entities.

Objective A: Form mutually beneficial partnerships with and among the public and private sectors to expand and improve the provision of services and facilities.

Action 6.8.1: Develop an agreement between the City of Bossier City, Bossier Parish and the Bossier Parish School Board to include joint acquisition of land and effective use of school and municipal

buildings and facilities, which will result in higher quality recreation opportunities at a more reasonable cost to the taxpayer.

Action 6.8.2: Establish a partnership with the State of Louisiana to jointly acquire, develop, operate, and manage regional and statewide parks and recreation facilities, activities, programs, and conservation areas.

Action 6.8.3: Coordinate with the Red River Waterway Commission, the U.S. Army Corps of Engineers, the Louisiana Department of Wildlife and Fisheries and other local, regional, state and federal agencies to provide areas and facilities for use by residents and visitors to the City and Parish.

Action 6.8.4: Establish an intergovernmental agreement between Bossier City and Bossier Parish for the acquisition, development and maintenance of parks within the MPC planning area.

Action 6.8.5: Establish cooperative agreements with developers and landowners in the growth areas of the Parish to develop parkland in new residential areas. This may include the dedication of parkland that would be maintained by the City or Parish.

Action 6.8.6: Encourage private sector participation in the provision of parks and recreation opportunities by permitting innovative land development practices and creating incentives that will result in an efficient utilization of land and provide greater opportunities for the enjoyment of open space and preservation of the natural environment.

Action 6.8.7: Encourage educational institutions and nonprofit organizations to acquire, manage, and operate parks and open space conservation areas.

Action 6.8.8: Establish lines of communication with citizens to assist in the planning, design and development of parks within their respective neighborhoods.

Adequate Funding

As a result of fiscal constraints experienced by local governments over the course of the last two decades, communities and regions have changed their approach to financing infrastructure for new development. Local governments now look to the private sector to share in the costs of public facilities proportionally equal to the demand placed on these types of facilities by new development. Also, pay-as-you-go local financing approaches are used to spread the cost of facilities over many years rather than imposing an up-front cost on developers and homeowners. The use of state and federal grants and reimbursements are highly competitive, but allow local governments to leverage their dollars efficiently.

Funded by Community Development Block Grant (CDBG) funds, the Bossier City Elementary Children's Park is exemplary of a partnership between Bossier City and the Bossier Parish School Board. This park serves neighborhood children and couples as a school playground.

Goal 6.9: Identify dedicated funding sources for the acquisition, development, operation and maintenance of parks and recreation areas, facilities, programs and activities.

Objective A: Provide for an adequate, "first class" parks and recreation system by providing adequate resources, funding and attention.

Action 6.9.1: Conduct a comprehensive parks and recreation needs assessment for the MPC planning area to identify deficiencies and improvement needs of the existing system and future needs, which will determine the level of financial commitment needed to develop and sustain an adequate parks and recreation system.

Action 6.9.2: Identify all potential funding sources, including Federal, State, Parish, City and School Board programs and budgets, donated and volunteer resources, and revenue sources such as user fees, exactions, fee-in-lieu of land, etc.

Action 6.9.3: Develop a capital improvement program for parks and recreation areas and facilities in the City and Parish and identify a five-year plan of priority improvements and a source of funds.

Action 6.9.4: Annually prepare nominations and applications to qualify for grant assistance or other funding arrangements to finance annual capital improvements.

Action 6.9.5: Consider establishing a recreation district, which has the authority to levy a tax to generate revenue toward the development and improvement of areas and facilities.

Previous Plans and Studies

Available plans and studies previously prepared took a more focused approach toward parks and recreation for the planning area were reviewed and considered in the development of this element for the Master Plan. The relevant plans and studies included:

- **Parks and Recreation Master Plan 1986** – As an update of the original master plan adopted in 1978, this document served to provide an exhaustive analysis of existing conditions, interpretation of surveys and "serve as a guide for the City of Bossier City to use in meeting the City's current and future recreational needs." The planning area encompassed a similar five-mile planning limit utilized by the Bossier City-Parish Metropolitan Planning Commission.
- **Five-Year Recreation Recovery Action Program** – Plans were completed in 1986 and May 2001. Both were formatted to comply with the National Park Service (NPS) Assistance Handbook for UPARR Recovery Action Planning. The recent effort was completed by City of Bossier City Mayor's Office and was approved by the NPS in December 2001. The planning horizon considered was 2001-2006 where "the key element…(was) to identify, assess, and prioritize park and recreation facility needs." It consisted of two parts, assessment and an action plan. The assessment portion of the document included sections on citizen participation, and physical, rehabilitation, service, and management issues. Through the completion of this plan, Bossier City is now eligible to apply for UPARR funds.
- **A Master Development Plan Report** for Cane's Landing was prepared in 1989. This planning document followed the completion of a pre-development analysis report for the site, which was to be the final step prior to development. The key elements of the project include open and natural areas, pedestrian and bicycle pathways and public access to the Red River. As indicated in the report, Cane's Landing will one of if not the only river-oriented regional urban park in the Ark-La-Tex.
- **A Plan for Action: Bossier City Downtown Study** was prepared in 1980. The report aimed to rejuvenate downtown Bossier City. In doing so, the positive contributions of parks and recreation spaces were noted. With adequate community and neighborhood parks provided, the Action Plan advocated acquisition of "special use parkland." This action ultimately resulted in the Arthur Ray Teague Parkway Open Greenspace.
- **Interim Report on Analysis of Existing Conditions (Master Plan for Downtown & Riverfront District (1994)** As a consequent to the passage of the Louisiana Riverboat Economic Development and Gaming Control Act of 1991, the industry has had a visible impact on the City's riverfront. Evaluations were made of a downtown development district and a larger riverfront development district that encompassed the Cane's Landing site.

Existing Parks and Recreation Facilities

As a component of this element, an evaluation was conducted of the existing parks and recreation system and the future needs to accommodate the projected future growth within the planning area. The existing areas and facilities are displayed in Figure 6.1. The Bossier MPC Planning Area is served by a system of parks and facilities that provide opportunity for a broad range of recreational activities for residents and visitors. However, the existing facilities are predominately located within Bossier City. A wealth of natural resource and open space areas contribute additional acreage that is not included since it is not within the inventory of City or Parish owned public facilities. The existing public parks and recreation areas are depicted in Figure 6.1 - Existing Parks and Recreation Inventory.

The Bossier City Ten-Year Recovery Action Program identified the following inventory of parks and recreation areas and public open space within the Bossier MPC Planning Area. The Action Program also identified recommended improvements, which are briefly denoted within this plan. The existing facilities include:

Playlots

- **Bossier Elementary Playlot** (322 Colquitt) - Situated on a half-acre portion of the school campus, the playlot is enclosed by a fence and owned by the Bossier Parish School Board. No recommended improvements were identified in the Action Plan.
- **Central Park Playlot** (Central Park Drive at Rodney Street) - This 0.72-acre park is adjacent to Central Park Elementary. As a result of its limited use, the Action Plan recommended that it be closed and donated to the Bossier Parish School Board.
- **Donald Bond Optimist Playlot** (100 Mary Ann Street near Shed Road) - This small park consists of playground activities suited for small children. The Action Plan recommended no improvements.

The *Donald Bond Optimist Playlot is a model for public-private partnerships. This playlot was donated by the Optimist Club of Bossier.*

- **Jack Tuttle Playlot** (Preston Boulevard) - This 1.7-acre park consists of an unsupervised playground. Recommended improvements included the installation of picnic tables, benches and grills.
- **Meadowview Playlot** (Meadowview Drive at Voss Street) - This one-acre pocket park serves as an unsupervised neighborhood playground. Installation of picnic tables, benches and grills were recommended in the Action Plan.
- **Parkway Playlot** (Parkway Drive at Oriole Street) - This 0.6-acre playlot consists of two tennis courts and 12 parking spaces. No improvements were cited for this park.
- **Riverwood Playlot** (Plantation Drive) - This 0.27-acre playlot has modular play equipment. No recommendations were made for this playlot in the Action Plan.

Neighborhood Playgrounds and Parks

- **Bicentennial Park** (John Wesley Boulevard) – This 2.2-acre park consists of a gazebo, monument and sitting areas and is often used for special events such as weddings and other gatherings. No recommendations were made for this park.
- **Field of Dreams Neighborhood Park** (4801 Swan Lake at Shed Road) - Immediately adjacent to the playfield, this 2.5-acre park consists of various playground activities, three covered pavilions with picnic tables and a lighted jogging trail. It is the only handicapped accessible park in the planning area. One recommendation was made for the bayou to be chemically treated for algae.
- **Greenacres Neighborhood Park** (Airline Drive) - This 4-acre park includes four tennis courts. The swimming pool was closed, demolished and sold. The Action Plan recommends that the park be declared as surplus and donated to the School Board.
- **Hooter Neighborhood Community Park** (100 Hooter Street near Fullilove Drive) - The Martin Luther King Community Center is located within this 11-acre park with picnic areas, Head Start Facilities as well as a jogging trail. To improve utilization, recommendations include development of a senior citizen activity area, additional playground equipment, and a storage building.
- **Mitchell Park** (1518 Cox Street) - This 4.25-acre park is within a residential development, adjacent to a large drainage ditch and the Charlotte Mitchell Alternative School. Facilities include baseball field, a basketball court, a jogging trail and picnic areas. The park also has a community building and playground. No recommendations were made for this facility.

- **Patricia Neighborhood Park** (3208 Patricia) - Well suited for active recreation users; this park is 3.67 acres and has tennis courts, a ball field, jogging trail, restrooms and a new playlot. No recommendations were made for this facility.
- **Shady Grove Neighborhood Park** (3949 Wayne Drive at Lake Street) - This heavily utilized 10-acre park has a variety of facilities, including a softball field, batting cage, air-conditioned gymnasium and a community center with meeting and administrative space. Access to the park is provided by a footbridge, which connects to an adjacent neighborhood. Improvement recommendations include striping the parking lots and relocating the park sign to a more visible location.

Patricia Park is a popular attraction for area residents due to its facilities and amenities.

- **Ft. Smith Neighborhood Playfield** (701 Coleman Street) This 12-acre park is multidimensional, being used for the Bossier City Council on Aging and having a number of active recreation resources, such as a basketball court, four tennis courts, and jogging trail. Adjacent to Bossier High School, students use the courts throughout the school year. No recommendations were made to improve this facility.

Community Playfields and Parks

- **Mike Wood Community Park** (2200 Dennis Street) - This 30-acre park has a number of active recreation facilities, anchored by four tennis courts, a basketball court, picnic areas, and swimming facilities. As the premier park of Bossier City, it is well maintained and highly utilized by the community. Recommended improvements included the sign location, drainage, and parking.
- **Clifford Almond Community Playfield** (4801 Swan Lake at Shed Road) – This 25-acre facility has eight baseball fields complimented by one ADA multipurpose playlot. Nine recommendations were made for rehabilitating this park. Repairs to the fence, pavilion, and storage building are planned for 2002.
- **Shed Road Neighborhood Park** (4208 Shed Road) - This 13.7-acre park has a variety of facilities including three covered pavilions, picnic areas, benches, and a playlot. Active recreation facilities include two tennis courts, a jogging trail, a basketball court, and four ball fields. The parking area and lighting of the new softball field, which is one of three utilized by Bossier Parish Community College and Bossier Parish Middle Schools, were recommended for improvement.

Mike Wood Memorial Park is the most heavily utilized park in the Bossier Park System.

- **Tinsley Athletic Complex** (Tinsley Drive off E. Texas Avenue/US 80) - Partially developed, this 120-acre complex is designed to facilitate organized sporting events and tournaments. The facility includes softball, baseball, soccer and football fields with three concession buildings, restrooms, covered picnic areas, a batting cage and two playground areas. No recommendations were made to improve this facility.
- **Walbrook Neighborhood Park** (100 Mary Ann Street near Shed Road) - This 33-acre facility is predominately used for baseball by children ages 8

to 14. There are currently four fields and planned future construction will accommodate high school practices and games. Recommendations included the addition of a standardized sign and a drainage culvert. Phase I improvements were completed last year, which included a parking lot overlay, construction of a concession/restroom facility, and storage buildings. Completion of Phase II is anticipated in 2002.

- **Arthur Ray Teague Parkway Jogging Trail –** The trail extends 5-miles along the Red River. Completed in 2001, there are also several amenities including two small and three large pavilions and a boat launch with parking. No recommendations were made for this linear area. The amenities along the trail were developed in conjunction with the Red River Waterway Commission.

One of the newest additions to the Bossier park system, the Arthur Ray Teague Parkway Greenspace and Trail is an excellent example of a linear facility that reaps the benefits of the Red River.

- **Golden Meadows Park and Community Center (Mary Drive)** - This 35.36-acre tract remains undeveloped. According to the Action Plan, there is little support for constructing recreation facilities on this site and, therefore, no recommendations were made.

Park Classification System

The National Recreation and Park Association (NRPA) published the Recreation, Park and Open Space Standards and Guidelines to establish nationally applicable criteria for the provision of parks and recreation facilities and open space. These standards serve as a guide for parks and recreation planning, but do not replace reasonable judgment or specific local needs. The needs and desires of the citizens of Bossier City and Parish justify continued development of parks, recreation and open space to meet the specific needs and requirements of the community.

While national standards are useful, it is important to establish standards that are based upon unique local considerations such as participation trends, user characteristics, demographics, socioeconomics, climate, natural environment and other considerations. Leisure and recreation values are unique to each municipality; therefore, it is important that the standards represent the interests and desires of the community.

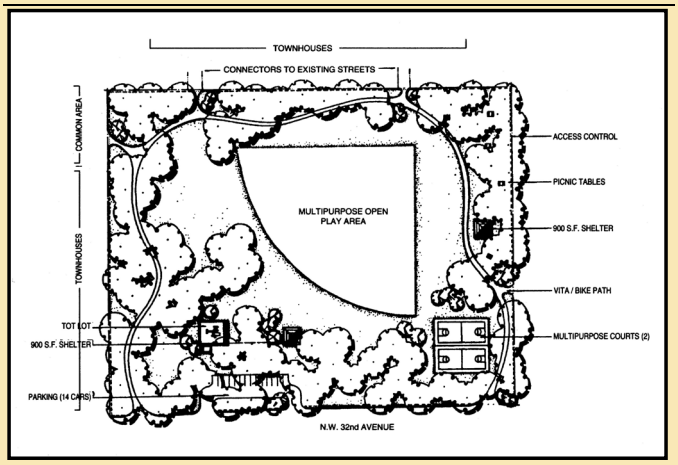
This element borrows from the recently completed Park Recovery Action Program, which was used primarily for the identification and mitigation of rehabilitation issues in existing city-owned facilities. This plan element takes a forward step beyond the recovery program to assess the future needs for parks and recreation facilities within Bossier City and the Parish planning area.

The Action Program established a classification system that includes the following types of facilities. These facilities are referenced throughout this plan element to aid in consistency between the plan documents. However, with respect to the facility development standards, the National Recreation and Parks Association (NRPA) standards were used to identify the use, service areas, size and characteristics of each type of facility. As a result, neighborhood playgrounds and parks are consolidated, as are community playfields and parks, which conform to national standards. The park classification system applies to the City and Parish planning area. The terminology references the service area and population served, which is equally applicable to the City and Parish. The classification is as follows:

- **Playlots** are intended for active recreational use of immediate property owners such as in apartment complexes and planned communities. There are no specific criteria to guide development of playlots although they should have recreation facilities and park improvements available to meet the identified needs of the immediate development. User input should be a primary determinant for developing playlots. Recommended facilities and improvements include: picnic tables with covers, perimeter

sidewalks, shade trees and native landscaping, drinking fountain, security lighting, a multipurpose open play area, playground equipment, perimeter fencing or landscaping, benches, on-street parking, trash receptacles, and curb cuts and pedestrian crossings.

- **Neighborhood playgrounds** are generally one or two lots or leftover parcels of land that are centrally located within a neighborhood. Common improvements include playground equipment or a playscape, open play areas, benches, picnic tables, water fountains and other active recreation equipment suitable for the specific site.



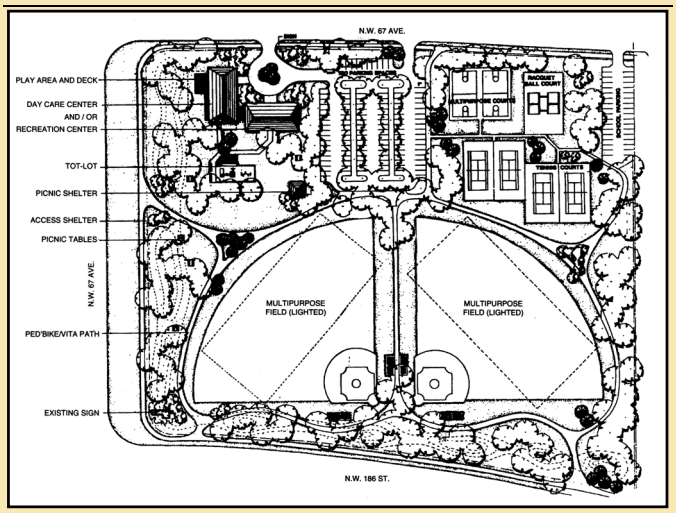
A typical neighborhood park includes a variety of passive and active facilities for nearby users.

Source: Recreation, Park and Open Space Standards and Guidelines, NRPA

- **Neighborhood parks** should have facilities and improvements to accommodate use by neighborhoods within one-quarter to one-half mile of the park. Ease of access from surrounding neighborhoods, central location and pedestrian/bicycle linkages are key considerations when developing neighborhood parks. Neighborhood parks should be designed to accommodate the needs of all ages and therefore, should have a blend of passive and active facilities available. It is highly desirable to include the neighborhoods in the park design process to ensure it is compatible and accounts for the desires of its intended users. Recommended facilities and improvements include: picnic tables with covers, bar-be-que pits, sidewalks and or a natural walking trail, shade trees and native landscaping, drinking fountain(s), security lighting, a multipurpose open play area, multipurpose play courts, playground equipment and/or a playscape, perimeter fencing or landscaping, benches, restrooms, on- or off-street parking, trash receptacles, curb cuts and pedestrian crossings.

- **Community play fields** are large open lands utilized for informal activities or organized league practices. They are largely undeveloped but may include backstops and goals, bleachers, drinking fountains, restrooms, off-street parking, trash receptacles playground equipment and other facilities unique to each site.

- **Community parks** are to provide active and passive recreation for citizens generally within one mile. The facilities and improvements in community parks must be planned and designed for heavy use by persons of all ages. Where feasible, community parks should be located adjacent to a greenway, which can provide an off-street linear linkage from other areas and facilities. Neighborhood and community input should be a primary determinant of the development program for a community park. Recommended facilities and improvements include picnic tables with covers, barbeque pits, sidewalks and or a natural walking trail, mountain biking trails, exercise stations (optional), shade trees and native landscaping, drinking fountains, security lighting, a multipurpose open play area, multipurpose courts, playground equipment and a playscape, bicycle racks, perimeter fencing or landscaping, street signs indicating "children at play", benches, trash



Community parks are intended for community-wide use, generally within a one-mile service area.

Source: Recreation, Park and Open Space Standards and Guidelines, NRPA

receptacles and enclosures, curb cuts and pedestrian crossings, tennis courts, basketball courts, softball and little league fields with bleachers, soccer/football fields with goals and goal posts, sand volleyball courts, swimming pool, covered pavilions, performance stage (optional), restrooms, fencing for ball fields and athletic courts, a concrete surface for a general play area, off-street parking, and other unique features (as appropriate).

- **Urban green space or open space areas** include reserved public lands dedicated as public open space. These lands are generally owned by the local government or dedicated through private instrument as a development reserve. These areas are generally undeveloped and used for informal activities. They may also serve as flood collection areas during major storm events. Other examples of open space areas include easements for drainage basins, excess rights-of-way, greenways and street esplanades.

- **Regional parks** are typically in an area of natural quality for nature oriented outdoor recreation, such as viewing and studying nature, bird watching, wildlife habitat, swimming, picnicking, hiking, fishing, boating, camping and trail uses. Regional parks typically include active play areas such as athletic fields. Recommended facilities and improvements include picnic tables with covers, barbeque pits, natural walking trails, mountain biking trails, camp sites with and/or without utilities, nature preserve or wildlife habitat, shade trees and native landscaping, drinking fountains, security lighting, multipurpose open play areas, multipurpose courts, playground equipment and/or playscapes, bicycle racks, benches, trash receptacles and enclosures, tennis courts, basketball courts, softball and little league fields, soccer/football fields with goals and goal posts, sand volleyball courts, swimming pool or beach, covered pavilions, restrooms, off-street parking, and other unique features (as appropriate).

Development Standards

As parks and recreation sites are evaluated for acquisition and development, it is important for the City and Parish to have a standardized list of facilities and equipment desired for each type of park to assess the development feasibility of each site, as identified in the Park Classification System above. There are important considerations in developing parks including the size, shape and orientation of the site; pedestrian, bicycle and vehicular access and parking; adjoining land use; development constraints such as severe grades, poor drainage and flooding; environmental impacts; and, the anticipated use of the park. In assessing the feasibility of a site, each of these considerations is important.

A variety of sizes and types of parks and recreation facilities and activities are recommended to satisfy diverse individual interests, ensure adequate and equal opportunity, and ultimately encourage use by all persons within the Bossier planning area.

Displayed in **Table 6.1 – Park and Recreation Facility Development Standards,** are the standards for each type of park. These standards are used to determine the locations and needs for existing and future parks. The actual size of the park and the location is often determined by the availability of a potential park site.

As a reference for siting new park facilities, Table 6.2 relates to existing zoning and future land use, transportation improvements and other public facilities and services. Two of the more important factors are location and access, which are influenced by adjacent land uses and the functional class of adjoining streets (residential, collector, arterial, etc.). For example, an ideal neighborhood park is integrated within a neighborhood surrounded by residential dwellings on a local residential street. In comparison, larger community parks, especially those with lighted athletic fields, are best situated adjacent to a major thoroughfare and with adequate separation from homes.

Recommended Facility Development Standards

Displayed in **Table 6.2 - Recommended Facility and Equipment Guidelines**, is the minimum facility and equipment improvements for pocket parks, neighborhood and community parks, which are based upon the population within the park service areas. The facility ratios reflect typical demands for each of the identified park facilities and equipment. Since user characteristics tend to fluctuate by season and by type of user, the ratios may need to be adjusted to better meet the needs of the users at each particular park.

Table 6.1
Park and Recreation Facility Development Standards

Component	Use	Service Area	Desirable Size	Acres/1,000 Population	Desirable Site Characteristics
Playlot	Small areas intended primarily for the use of children (toddlers - age 9) containing play equipment, swings, slides, sandboxes and benches.	Less than 1/4 mile radius.	1000 square feet - 1 acre	.1 - .3 acres	Within neighborhoods and close to apartments, townhouses, or housing for the elderly.
Neighborhood Playground	Designed to provide both active and passive short-term activities consisting of distinct play areas for preschool and school age children, shelter structures, open space, multi-use paved courts and areas for field games.	Walking distance, 1/2 mile radius.	4-8 acres	1.5 acres	Usually located adjacent to public schools, easily accessible, centrally located in neighborhood, with safe walking and bike access.
Neighborhood Park	Landscaped natural park of limited size primarily for passive recreational needs of all ages but with designated active areas. Provides scenic and aesthetic value including open lawn space, shrubbery, small picnic areas, nature walks and areas for court games if not provided nearby.	1 to 2 mile radius (Serves entire neighborhoods).	5 - 8 acres	1.5 acres	Should be located in the center of a multiple -family dwelling neighborhood or nearby site.
Community Playfield	Primarily an athletic complex that serves the recreational needs of the community with lighted court and field games area, community center, swimming pool, lawn areas, adequate parking, may have picnic and play area for children.	Within biking distance.	15-25 acres	2/1000	May be a portion of a major community park, but generally one per community, unless however, communities are split by barriers or if sufficient acreage can not be obtained.
Major Community Park	A large natural and /or landscaped area to provide urban dwellers an escape from city congestion without traveling a large distance. Provides both intensive and passive uses. Typical facilities include swimming pool, picnic areas, paths, game courts, gardens, natural areas, pavilion, ample parking, and restrooms.	Within 30-minutes	50-100 acres	1 - 5/1000	Designed to accommodate a large number of people and a wide variety of activities.
Urban Greenspace or Open Space	Passive areas in landscaped or natural state in or near urban areas. May provide bicycle, hiking, and nature trails as a feature or as part of a larger system.	No applicable standard.	Varies.	.75 - 1.0 acres	Natural lands, watershed and waterfront, forests, landscaped borders, parkways, and boulevards, corner parks, medians, downtown aesthetic parks, plazas, malls.

Source: Bossier City Ten-Year Park Recovery Action Program, 2001

Table 6.2
Recommended Facility and Equipment Guidelines

Activity/ Facility	Space Requirements	Size and Dimensions	Orientation	Units per Population	Service Radius	Location Notes
Basketball **1. Youth** **2. High School** **3. Collegiate**	2,400 - 3,036 sq. ft. 5,040 - 7,280 sq. ft. 5,600 - 7,980 sq. ft.	46'- 50' x 84' 50' x 84' 50' x 84'	Long axis north-south	1 per 10,000 persons	¼ - ½ mile	Outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings.
Soccer	1.7 - 2.1 Ac.	195' to 225' x 330' to 360' with a minimum clearance of 10' on all sides.	Fall season – long axis northwest to southeast. For longer periods, north to south.	1 per 10,000 persons	1 - 2 miles	Number of units depends on popularity. Youth soccer on smaller fields adjacent to schools or neighborhood parks.
Tennis	Minimum of 7,200 sq. ft. for a single court. (2 acres for a complex)	36' x 78' Twelve foot clearance on both sides; 21' clearance on both ends.	Long axis north-south.	1 court per 2,000 persons	¼ - ½ mile	Best in batteries of 2-4. Located in neighborhood/ community park or adjacent to a school site.
Volleyball	Minimum 4,000 sq. ft	30' x 60'. Minimum 6' clearance on all sides.	Long axis north-south	1 court per 5,000 persons	¼ - ½ mile	Same as other court activities (e.g. badminton, basketball, etc.)
Football	Minimum 1.5 Ac.	160' x 360' with a minimum of 6' clearance on all sides	Fall season–long axis northwest to southeast. For longer periods, north to south.	1 per 20,000 persons	15 - 30 minutes travel time.	Usually part of baseball, football, soccer complex in community park or adjacent to high school
Multiple-Use Recreation Court (basketball, volleyball, tennis)	9,840 sq. ft.	120' x 80'	Long axis of courts with primary use is north-south.	1 per 10,000 persons	1 - 2 miles.	In neighborhood or community parks.
Open Space	Minimum of 40 percent undeveloped per park	N/A	N/A	5 acres per 1,000 persons	30 minute travel time.	Within neighborhood and community parks or stand alone.

Source: *Park, Recreation, Open Space and Greenway Guidelines, National Recreation and Parks Association, 1995.*

Table 6.2 (Continued)
Recommended Facility and Equipment Guidelines

Activity/ Facility	Space Requirements	Size and Dimensions	Orientation	Units per Population	Service Radius	Location Notes
1/4 Mile Running Track	4.3 acres	Overall width - 276′ Length - 600.02′. Track width for 8, 4′ lanes is 32′	Long axis in sector from north to south to northwest to southeast with finish line at northerly end.	1 per 20,000 persons	15 - 30 minute travel time.	Usually part of high school or in community park complex in combination with baseball, soccer, etc.
Baseball **1. Official** **2. Little League**	3.0 - 3.85 acres minimum. 1.2 acres minimum.	Baselines – 90′ Pitching distance – 60-1/2′ Foul lines - 320′ min. Center field – 400′+ Baselines – 60′ Pitching distance – 46′ Foul lines – 200′ Center field – 200′-250′	Locate home plate so pitcher throwing across sun and batter not facing it. Line from home plate through pitcher's mound runs east northeast.	1 per 5,000 persons Lighted – 1 per 30,000 persons.	¼ - ½ mile.	Part of neighborhood complex. Lighted fields should be part of a community park or sports complex.
Softball	1.5 - 2.0 acres.	Baselines – 60′ Pitching distance – 46′ min. 40′ – women Fast pitch field radius from plate – 225′ between foul lines slow pitch – 275′ (men) 250′ (women).	Same as baseball.	1 per 5,000 persons (if also used for youth baseball)	¼ - ½ mile.	Slight difference in dimensions for 16″ slow pitch. May also be used for youth baseball.
Trails	N/A	Maximum 10′ width, maximum average grade 5% not to exceed 15%. Capacity: Rural trails – 40 hikers/day/mile Urban trails – 90 hikers/day/mile.	N/A	1 system per region	N/A	Located in greenways, natural areas and parks, and along drainage ways, levees and utility easements. Their purpose is to accommodate walkers, joggers and bicyclists away from traffic.
Golf Course **18-hole (standard)**	Minimum 150 acres.	Average length – 6,500 yards.	Site specific.	1 public course per 50,000 persons.	½ to 1 hour travel time.	Located in community park, but should not be over 20 miles from a population center.
Golf– Driving Range	13.5 acres for minimum of 25 tees.	900′ x 690′ wide. Add 12′ width for each additional tee.	Long axis southwest - northeast with golfer driving toward northeast.	1 per 50,000 persons.	30 minute travel time.	Part of golf course complex or privately operated.

Source: *Park, Recreation, Open Space and Greenway Guidelines, National Recreation and Parks Association, 1995.*

Table 6.2 (Continued)
Recommended Facility and Equipment Guidelines

Activity/ Facility	Space Requirements	Size and Dimensions	Orientation	Units per Population	Service Radius	Location Notes
Archery Range	Minimum 0.65 acre.	300′ length x minimum 10′ between targets. Roped, clear areas on side of range minimum 30′, clear space behind targets minimum of 90′ x 45′ with bunker.	Archer facing north (± 45°).	1 per 50,000 persons.	30 minute travel time.	Part of a regional/ metro park complex.
Handball (3 - 4 wall)	800 sq. ft. for 4 -wall, 1,000 sq. ft. for 3 –wall.	20′ x 40′ – Minimum of 10′ to rear of 3 - wall court. Minimum 20′ overhead clearance.	Long axis north-south. Front wall at north end.	1 per 20,000 persons.	15 - 30 minute travel time.	4-wall usually indoors as part of multi-purpose facility. 3 -wall usually outdoors in park or school setting.
Badminton	1,620 sq. ft.	Singles – 17′ X 44′ Doubles - 20′ X 44′ with 5′ unobstructed area on all sides.	Long axis north-south.	1 per 5,000 persons.	¼ - ½ mile.	Usually in school, recreation center, or church facility. Safe walking or bike access.
Field Hockey	Minimum 1.5 acre.	180′ x 300′ with a minimum of 10′ clearance on all sides.	Fall season – long axis northwest to southeast. For longer periods, north to south.	1 per 20,000 persons.	15 - 30 minute travel time.	Usually part of baseball, football, soccer complex in community park or adjacent to high school.
Ice Skating and Hockey	22,000 sq. ft. including support area.	Rink 85′ x 200′ (minimum 85′ x 185″) additional 5,000 sq. ft. support area.	Long axis north-south if outdoors.	Indoor - 1 per 100,000 persons. Outdoor depends on climate.	½ - 1 hour travel time.	Depends on community interest.
Swimming Pools	Varies on size of pool and amenities. Usually ½ to 2 acre site.	Teaching – min. of 25 yards x 45′ even depth of 3 to 4 feet. Competitive – min. of 25m x 16m. Minimum of 27 square feet of water surface per swimmer.	None – although care must be taken in siting of lifeguard stations in relation to afternoon sun.	1 per 20,000 persons.	15 to 30 minute travel time.	Pools for general community use should be planned for teaching, competitive, and recreational purposes with enough depth (3.4m) to accommodate 1m and 3m diving boards. Located in community park or school site.

Source: *Park, Recreation, Open Space and Greenway Guidelines, National Recreation and Parks Association, 1995.*

Needs Assessment

To assess the adequacy of the existing parks and recreation supply, it is necessary to look at existing population, the supply of parks provided by existing facilities including any planned improvements or expansions, and relate them to planning standards for desirable levels of service. In addition, it is necessary to consider forecasts in future population to determine future needs and to identify deficiencies of the system.

The assessment of need for neighborhood and community parks varies according to the purpose and use of the facilities. Community parks and play fields are intended to function on a large-scale basis serving the parks and recreation needs of an entire community, which may be within an urban area or a developed rural area. They are typically large in size (minimum 25 acres) and include facilities and improvements for area wide activities and assembly events, such as picnic areas, walking/jogging trails, ball fields, and other larger scale activities. Ensuring adequate and equitable recreation and leisure opportunity for all citizens is the objective of community parks.

The use of neighborhood parks and playgrounds is intended for the residents of adjacent and nearby neighborhoods. Having service areas that encompass the entire planning area is not as important for neighborhood parks. The focus of neighborhood parks is the residential neighborhoods within a reasonable walking distance. Complete service area coverage is not necessary for neighborhood parks rather it is more important to have a well-distributed system to serve the parks and recreation needs of nearby residents. An acceptable walking distance to neighborhood parks is generally 4 to 8 blocks.

In addition to neighborhood and community parks are regional facilities, which serve the needs beyond a single community to encompass several communities within the parish. The service area radius of a regional park is a one-hour drive time. To provide adequate service to the population, regional facilities need to be evenly spaced within near proximity to the regional population base. The purpose of regional facilities is to complement the urban facilities by providing recreation and open space areas to rural residents and a larger service coverage.

Existing Resources vs. Projected Need

A combination of a standard-based and demand-based approach was utilized to assess the need for additional parks and recreation areas and facilities within the Bossier planning area. The demand-based approach entailed input from the community meetings, through focus group interviews, and meetings with the Master Plan Advisory Committee (MPAC). Utilizing a combination of Bossier City and NRPA standards, the acreage of parks and recreation areas needed in the MPC planning area is displayed in **Table 6.3 - Recommended Parks and Recreation Area Standards**. The need for additional parks and recreation acreage is determined by applying the recommended standards to the existing and projected future population of the planning area.

As shown in Table 6.3, the standards range in size per 1,000 persons. Based upon a 2000 Census population of 74,836 persons within the City and its five-mile planning area, the total acreage need for the planning area ranges from 363 to 621 acres of playlots, neighborhood playgrounds and parks, community playfields and parks, and public open space.

Table 6.3
Recommended Parks and Recreation Area Standards

Classification	Standard	Low	High	Recommended
Playlot	0.1 to 0.3 ac./1,000 persons	7	22	15
Neighborhood Playground and Park	1 to 2 ac./1,000 persons	75	150	113
Community Playfield and Park	3 to 5 ac./1,000 persons	225	374	300
Urban Greenspace / Open Space	0.75 to 1.0 ac./1,000 persons	56	75	66
TOTAL		363	621	494

Source: Bossier City Five-Year Park Recovery Action Program, 2001 & Wilbur Smith Associates
Note: Based upon a Year 2000 planning area population of 74,836 persons

Current Bossier City Needs

The populations of the City and Parish represent their respective needs. Bossier City currently represents roughly three-quarters of the total planning area population. With a 2000 Census population of 56,451 persons, based upon adopted standards, the City should have between 273 and 467 acres with a recommended need of 370 acres. Currently, the City maintains 312 acres of parks and recreation areas, which is 84 percent of the

recommended need. Based upon the applied standards, an additional 58 acres is needed in the City of Bossier City.

Current Bossier Parish Needs

Bossier Parish does not currently own or maintain any public parks and recreation areas within the MPC planning area. Based upon a Year 2000 population of 18,385 persons, the total current need ranges from 89 to 152 acres with a recommended need of 121 acres. Therefore, to meet minimum standards, the Parish needs to acquire and develop 89 acres of parks and recreation areas. To satisfy the recommended standards 121 acres are needed.

It is important to note that there are two Wildlife Management Areas (WMAs) within the Parish, including the Bodcau WMA located in the northeastern portion of the parish and the Loggy Bayou WMA in the southeastern corner of the parish. While these areas are outside of the planning area, they do serve part of the need for parish parks and natural areas.

Future Demands

Displayed in **Table 6.4 – Park Resources vs. Demand (Year 2020),** is a tabulation of the recommended supply necessary to support the projected future population of 96,000 persons within the planning area. The Year 2020 needs for the City and Parish are 411 acres within Bossier City and 223 acres within the five-mile planning area of Bossier Parish.

Table 6.4
Park Resources vs. Demand (Year 2020)

Park Classification	Recommended Supply (Year 2020)	
	Bossier City	Bossier Parish
Playlot	13	7
Neighborhood Playground and Park	93	51
Community Playfield and Park	250	135
Urban Greenspace / Open Space	55	30
TOTAL	411	223

Source: Wilbur Smith Associates

Based upon the current supplies within each of the park classifications, following are the future needs within Bossier City and Bossier Parish:

Classification	Bossier City	Bossier Parish
Playlot	8	7
Neighborhood Playground/	55	51
Community Playfield/	15	135
Open Space	0	30
TOTAL	**118**	**223**

To meet the recommended need in the Year 2020, Bossier City will need to acquire and develop a total of 118 acres, which is roughly 6.5 acres annually. It is important to note that the Arthur Ray Teague Parkway Open Greenspace currently fulfills the open space requirement. Since there are no facilities within the five-mile planning area of Bossier Parish, the total future need is 223 acres, as shown above.

Park Service Areas

Evaluating service areas is an effective means of identifying geographic areas that have sufficient park areas available, but more importantly to identify those in need of additional parks and recreation areas and facilities. The existing inventory of playlots, neighborhood playground and parks, community playfields and parks, and schools are shown in **Figure 6.1 – Existing Parks and Recreation Inventory**.

Community Parks

Community parks have a primary service area of one mile, meaning that a majority of persons utilizing these area wide parks generally reside within one mile. The secondary service area extends two miles from the park to account for user patterns associated with the types of activities and facilities available in the community parks. For instance, little league athletic fields draw participation from throughout a larger area than one mile.

Illustrated in **Figure 6.2 – Neighborhood and Community Park Service Areas**, are the service areas of the five community playfields and parks, including Mike Wood Memorial Park, Clifford Almond playfield, Shed Road playfield, the Tinsley Athletic Complex, and Walbrook Park. These five facilities contribute 289 acres to the current inventory of areas and facilities. As exhibited, a majority of the populated areas north of I-20 is within the service areas of the community playfields and parks. The central, southern and far northern areas of the City, including Central Park, Bossier Annex, Pecan Park, Plantation Trace, Westgate Terrace, Bellaire, Southern

Gardens, Southgate Estates and Golden Meadows, are currently deficient in the availability of community parks.

There are two additional parks within Bossier City that are currently undeveloped, including Golden Meadows Park and Cane's Landing. These two facilities will contribute to meeting the overall need in the City and Parish when they are developed.

Since there are no community parks outside of the corporate limits of Bossier City, there are significant needs for this type of facility within the MPC planning area. Specifically, the most intensely developed and developing portions of the Parish extending northward between Airline Drive and Benton Road, in the areas along Shed Road and Stockwell Road, east along U.S. 79 and southeast along Sligo Road have the greatest current needs. As the Parish development continues, more facilities will be necessary to adequately serve the requisite need.

Neighborhood Parks

Neighborhood parks are intended to provide residents with ample opportunity for both passive and semi-active recreation activity within close proximity to their neighborhoods. The method of determining the need for neighborhood parks is quite different from an assessment of need for community parks. Whereas community parks are designed for large-scale, area wide events and activities, neighborhood parks are intended to meet the daily recreation needs of nearby residents. The level of activity is limited as a result of the size and location of these parks and the equipment and facilities available. Neighborhood parks should be within a short walking distance (typically one-half mile or less) for the residents of one or more neighborhoods thereby encouraging use and promoting convenience, ease of access, and safety for neighborhood children.

The size of neighborhood parks varies according to the availability of property, method and timing of acquisition, and intended use. One or two vacant lots or several acres may both adequately serve the needs of a neighborhood if there is an even distribution of parks and sufficient facilities and equipment available. National standards recommend a minimum neighborhood park size of 5 acres assuming an adequate and even distribution. Although a 15-acre park may accommodate ball fields and larger recreation and open space areas, three parks that are five acres in size may equally and perhaps better serve the need while providing a broader distribution of neighborhood parks.

Illustrated in Figure 6.2 are the effective service areas of the eight neighborhood playgrounds and parks, including Bicentennial, Field of Dreams, Greenacres, Hooter, Mitchell, Patricia Drive, Shady Grove and Fort Smith playgrounds and Parks. These eight parks provide 50 acres for use by area residents. In addition to the neighborhood parks, also shown are the service areas of the community parks as well as playlots and school properties. Schools provide an assortment of playgrounds, athletic courts and fields, and open space, which, for all intents and purposes, help to meet the neighborhood demand. The community parks are shown because they serve as neighborhood parks for the adjacent residents.

The service area for neighborhood parks is divided into primary and secondary areas. The primary service area is one-quarter mile and the secondary service area is one-half mile. As displayed in Figure 6.2, the one-half service area coverage of the existing neighborhood parks is distributed throughout the most densely populated areas in central Bossier City. However there are several areas in north and south Bossier, including Central Park, Bossier Annex, Westgate Terrace, Southern Gardens, Golden Meadows, Green Acres, Meadowview Park and other neighborhoods that are not within acceptable proximity to a neighborhood park.

Similar to the limited existence of community parks within the MPC planning area, neighborhood parks are of greater deficiency due to their smaller size. Since there are no neighborhood parks within the Parish planning area, there is a significant need for these smaller facilities in the same general areas identified for community parks. Neighborhood parks should be evenly distributed within the subdivisions throughout the planning area.

Achieving a system of neighborhood and community parks that is uniformly distributed may be accomplished in several ways, including pre-development acquisition by the City or Parish, dedication requirements concurrent with subdivision approval, public/private partnerships, and other strategies. While the provision of community parks is generally agreed to be the responsibility of the government entity, there is much less certainty about the responsibility of the entity to provide parks for private development. Requiring the dedication of park land concurrent with a final plat or a development site plan is a

sound method to assure adequate park areas consistent with the demand and impact placed on the public parks system by new development.

Playlots

As displayed in Figure 6.2, there are seven playlots within Bossier City. It is not necessary that these small facilities be evenly distributed throughout the City, but that they are provided to serve dense populations in multiple family and other clustered developments. In areas where there are current deficiencies, there are opportunities for playlots concurrent with new development or redeveloped sites to serve the requisite needs of the immediate population.

Regional Parks

Regional parks are intended for large areas covering a 50 to 60 mile radius and encompassing several communities. While there are no regional parks within the Bossier MPC planning area, there are regional facilities west of the Planning Area in surrounding areas. In Shreveport and Caddo Parish there is the Paul Lynch North Shreveport Metro Park, the Cargill Regional Park and the John M. Ford Regional Park near Cross Lake.

North and east of the Planning Area in Bossier Parish are two Wildlife Management Areas (WMAs). Bodcau Wildlife Management Area consists of over 32,000 acres and is located in the northeastern portion of the parish. Loggy Bayou Wildlife Management Area has over 4,200 acres and is located in the southeastern corner of the Parish. Both are owned by the U.S. Army Corps of Engineers and serve as flood control project areas. They are jointly managed by the Corps of Engineers and the Louisiana Department of Wildlife and Fisheries. Due to the abundance of native plant and animal species and remote location, both are great resources for camping, outdoor recreation and eco-tourism.

The Cypress/Black Bayou Recreation Area is located northeast of the Planning Area. It is owned and maintained by the Cypress/Black Bayou Recreation & Water Conservation District and provides access to camping, fishing, picnic areas, nature center and petting zoo.

With such resources near the Planning Area, these facilities meet the regional need for this classification of park so it is not necessary for Bossier Parish to duplicate a regional facility in near proximity to Bossier City. Additionally, they provide activities and amenities that are not conducive to populated areas.

Parks and Recreation System Plan

The general plan for future development of Bossier's parks and recreation system was developed through evaluation of existing conditions, planned improvements and projected future needs based upon anticipated development and increases in population. A future plan for the development of parks and recreation areas is shown in **Figure 6.3 – Parks and Recreation System Plan (Bossier City)**. The plan shows the generalized location of proposed neighborhood playgrounds and parks as well as community play fields and parks. In addition, the system plan identifies future bike lanes and trails. Displayed in **Figure 6.4 – Parks and Recreation System Plan (Bossier City-Parish MPC)**, are the generalized locations of proposed neighborhood and community parks to serve the needs of the developed and developing areas of the Parish planning area. As these suburban and rural areas continue to develop, there should be provisions for parks and recreation facilities to meet their requisite needs.

To develop a system of neighborhood and community parks that will adequately serve the existing and projected future parks and recreational needs of the Bossier planning area, the City and Parish need to acquire and develop parks within the identified deficiency areas, as shown on the System Plan. These parks will help to achieve full service area coverage of community playfields and parks and an even distribution of neighborhood playgrounds and parks.

The master plan will be a valuable resource that can be used on a continuous basis in guiding the parks and recreation development program of both the City and Parish. The goals, objectives, and recommended actions of the plan should be referenced in other planning studies and development proposal reports to ensure consideration of existing and planned public parks and recreation areas and open space. As new residential subdivisions are platted and developed, there should be allowances for sufficient land capable of being developed for public park and recreation uses.

Joint Use of School Facilities

School playgrounds, athletic fields and courts provide additional park and recreation areas and, if accessible to the public, will enhance the number and availability of

neighborhood parks within the City and Parish. A reciprocal agreement has been in place for some time primarily for the use of the gym facilities in exchange for use of the Bossier City Civic Center for meetings, graduation functions and other activities. However, with the recent opening of CenturyTel Center the School Board's need for use of the Civic Center has diminished significantly. A reciprocal agreement addresses joint purchase and the use and maintenance of school grounds and equipment, which is mutually beneficial to the School Board as well as City and Parish residents. The sharing of these public resources enables greater efficiency and minimizes duplication.

As displayed in Figure 6.2, the school sites contribute to the service area coverage of the neighborhood parks. While there is some degree of overlap with the neighborhood park facilities, they serve some areas that are not well served by park facilities. If joint use agreements can be reached between the City, Parish and School Board, the coverage of park facilities can be expanded to better serve the area neighborhoods.

Joint use of facilities and inter-jurisdictional agreements reap benefits for all parties and may result in the establishment of park and recreation facilities in unincorporated areas. The development of this plan has created an open forum in which parties have initiated vital dialogue creating the Bossier Parish Recreation Facilities Advisory Group. The initial discussions resulted in the City of Bossier City participating in joint efforts to provide ball field lights at Rusheon Middle School in the amount of $7,600. While the structure and purpose of the group have not yet been formally established, consideration should be given to expanding the group to include more citizen appointees or ensure public participation in the process. Furthermore, the role of each participating jurisdiction should be clearly defined and ratified by each participating group member. Long term, the Advisory Group could be formalized as a recreation district.

Site Selection Criteria

There are several factors that influence the suitable location of parks and recreation areas. Among them are the surrounding land use characteristics, potential physical development constraints and barriers, and the size and anticipated use of the proposed area. Input from the community should be a primary determinant in the design of park facilities.

An important factor in developing an adequate parks and recreation system is the existence of physical barriers. Barriers such as arterial roadways and other streets may impede the safety and convenience of walking to a nearby park. Physical obstructions must, therefore, be carefully considered in locating park facilities. The general site selection criteria and principal considerations include the following factors:

Topography:

- Minimum 50 percent of site should have a maximum gradient of 4 percent with runoff drained from developed areas; and,
- Desirable views should be preserved and protected.

Soils:

- Natural topsoil should be suitable for turf grasses and trees; and,
- Area should be protected from soil erosion during all phases of development.

Vegetation:

- Natural or landscaped vegetation should include grass areas and trees, with hardy, low maintenance species preferred for planted vegetation;
- Significant individual specimens or unique wildlife habitats are desirable; and,
- Irrigation systems should be provided for intensively utilized areas such as playing fields and landscaped areas.

Access and Location:

- Should be readily accessible to the service area population of pedestrians, bicyclists and vehicles;
- Should have collector street frontage;
- Access to linear parks and linkages are highly desirable;
- Should be centrally located;
- May serve as a buffer between different land uses or types of residential development; and,
- Neighborhood park/school sites are highly desirable as long as the public usage does not interfere with school activities.

Operating and Maintenance Standards

Development of parks and recreational facilities cannot be properly programmed without considering criteria for their design and maintenance. Improvements made to parkland should be standardized in order to facilitate

maintenance and repairs, maximize durability and longevity, and establish a minimum quality level. Through careful design and selection of materials, attractive park facilities can be developed that require minimum staff attention.

All park improvements should be in accordance with the Americans with Disabilities Act (ADA), local building codes, and all applicable restrictions and requirements. Guidelines for park improvement standards may include roads and parking lots; gates and fences; park buildings (picnic pavilions, restrooms, offices, and maintenance buildings); playground equipment; playground fall surfaces; picnic tables; benches; trash receptacles; grills; bleachers; sports facilities; sidewalks; walking/jogging trails; equestrian trails; and, mountain biking trails.

Maintenance Standards

In order for parks to be perceived as an asset to the City and Parish, they must be well maintained at all times. The parks system should maintain a high level of quality. It is essential that maintenance budgets be adopted as new park facilities are developed. If sufficient funds are not available, parkland should be held in reserve in its natural state until money can be dedicated for both construction and maintenance of facilities.

Park Maintenance Standards, a publication of the National Recreation and Park Association (NRPA), contains a Maintenance Standard Classification System that outlines six general levels of maintenance, including:

- **Mode I - State-of-the-art Maintenance:** State-of-the-art maintenance applies to a high quality diverse landscape. Usually associated with high traffic urban areas such as public squares, malls, public building grounds or high visitation parks.
- **Mode II - High Level Maintenance:** Maintenance associated with well-developed park areas with reasonably high visitation.
- **Mode III - Moderate Level Maintenance:** Maintenance associated with moderate to low levels of development, moderate to low levels of visitation or with agencies that because of budget restrictions cannot afford a higher intensity of maintenance.
- **Mode IV - Moderately Low Level Maintenance:** Maintenance usually associated with low level of development, low visitation, undeveloped areas or remote parks.
- **Mode V - High Visitation Natural Areas:** Maintenance usually associated with large urban or regional parks. Size and user frequency may dictate resident maintenance staff. Road, pathway or trail systems are relatively well developed. Other facilities are included at strategic locations such as entries, trail heads, building complexes and parking lots.
- **Mode VI - Minimum Level Maintenance:** Maintenance associated with low visitation natural areas or large urban parks that are undeveloped.

Pedestrian and Bicycle Facilities

Pedestrian and bicycle facilities serve not only as alternative modes of transportation but also as important forms of recreation. Therefore a safe and efficient network of pedestrian and bicycle facilities should be developed in coordination with the Transportation element of the Comprehensive Plan.

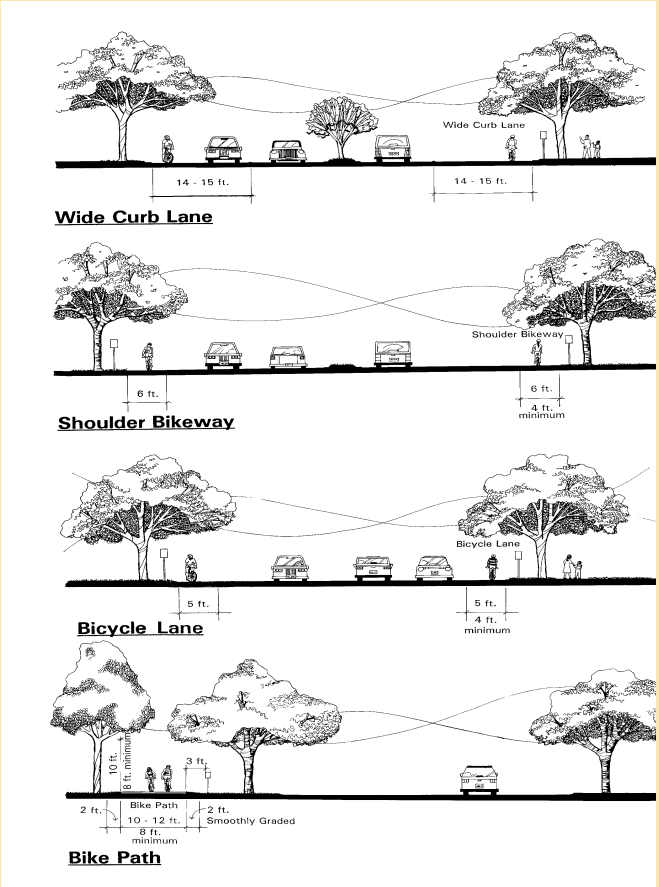
Skilled bicyclists usually prefer to travel along the street system and, where possible, should be accommodated through striped bike lanes or extra wide curb lanes on arterials and collectors. The majority of bicyclists, however, are less skilled and need to be separated from high speeds and high volume traffic through the use of off-street bike lanes and paths. Typical sections for different bikeway classifications are displayed in **Figure 6.5 – Typical Bikeway Sections**. Local and collector streets are suitable for use by most adult bicycle riders while minor arterial streets are suitable for limited use by bicyclists due to higher traffic volumes and higher speeds. Further information on pedestrian and bicycle facilities is provided in the Transportation element.

A conceptual plan for trail and bikeway system development is included in Figure 6.3 and 6.4. A system of off-street bike and hike trails should be developed which link major attractions and destinations such as neighborhoods, parks, schools and other popular locations. These can be facilitated along the area's network of bayous, land permitting. The proposed system of bike routes should also connect to existing trails and routes and should be designed and constructed in

compliance with the requirements of the Americans with Disabilities Act (ADA).

Greenways and park and connector trails are also instrumental in creating a cohesive park and recreation system. The NRPA defines park trails as "multipurpose trails located within greenways, parks, and natural resource areas." Park trails are important to the trail system and can be utilized for hiking, walking, jogging, and bicycling. Trails throughout parks and greenways serve to tie parks together and allow for safe and efficient pedestrian movement throughout the park system. Opportunities for park trails in communities include abandoned railroads, waterfront areas, utility rights of way, and scenic and historic routes. Connector trails allow for pedestrian and bicycle travel to and from parks.

Figure 6.5
Typical Bikeway Sections



Source: Wilbur Smith Associates

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The Parks and Recreation System Plan includes a network of bike lanes, trails and sidewalks. The proposed bicycle and pedestrian network utilizes a variety of trail sections, including trails along natural courses, shoulder bikeways, and sidewalks in restricted areas. The trail system plan and the sidewalk plan in the Transportation element are coordinated to ensure continuity and connections between sidewalks and trails. Future subdivisions and development will be linked to the trail system through appropriate sidewalk connections. The plan utilizes opportunities along the Red River for greenways and trails and connects existing parks and trails, creating a cohesive recreation system.

Observations and Recommendations

As this plan was prepared there were observations pertaining to the parks and recreation system, which contributed to the goals, objectives, policies and action statements identified earlier in this chapter. Others general observations and key recommendations for development of an adequate parks, recreation and open space system in the Bossier City-Parish MPC area include:

- Areas surrounding Barksdale Air Force Base are restricted to significant development due to compliance with regulations concerning excessive noise levels emitting from the base. Many of these areas, not yet encroached by development should remain in a "natural" state. Development rights may be acquired through transfer of development rights (TDR) or conservation easements.

- Many of the current parks make optimal use of limited resources. For instance, playlots are often located adjacent to elementary schools and several of the parks are adjacent or include community centers, libraries and other public use facilities. These joint use arrangements are a sound approach to systems planning and should be duplicated and improved upon in the future.
- The site of the proposed Bossier Parish Community College offers opportunities for joint use of parks and open space adjacent to the college facilities and grounds. While it is still early in the development process, it is advisable to coordinate with the community college to acquire a park or public open space on or adjacent to this site.
- While the park's site and facilities are important features, access is paramount. Parks such as Hooter and Mike Woods are difficult to find and access. Mike Woods in particular, generates a significant amount of traffic through a residential area. Future park sites should not only be selected based upon service area, needs and availability of land, but also access, to get residents to the parks, without leading to negative neighborhood impacts.
- Areas of the Parish that are relatively undisturbed and offer opportunities for conservation and preservation need be identified and considered in the context of future development.
- There are an undetermined but significant amount of privately owned parks and recreation facilities throughout the planning area. These facilities are generally owned and maintained by homeowners' associations or other private developers or nonprofit agencies. These facilities complement the public system and help to relieve the overall demand for areas and facilities.
- Within the planning area is a significant network of low profile levees for flood protection along the Red River. While the public safety component of maintaining dam safety is primary, adjacent easements and rights-of-way may be utilized as connectors or linkages with pedestrian and bicycle trails.
- Lands need to be acquired or reserved in the identified future growth areas well in advance of ensuing development to ensure availability, protection, and reasonable acquisition costs.
- Acquisition of conservation easements or fee simple purchase of land adjacent to the Red River is important to preserve public open space and environmentally sensitive lands.
- An "adopt-a-park" program to solicit the involvement of neighborhoods and local organizations will greatly aid in the maintenance and policing of public parks and recreation areas.

Funding Sources

Most capital investments involve the outlay of substantial funds; therefore local governments often must pay for new facilities through appropriations in the annual operating and capital budgets. There are numerous techniques available to pay for capital improvements over a longer period of time. Some of the available techniques include:

Local Financing Options

- **Current Revenue** - This technique is known as "pay-as-you-go" financing and is the financing of improvements from current revenues such as general taxation, fees, service charges, special established funds, or special assessments.
- **Reserve Funds** - The use of reserve funds is made possible by accumulating funds in advance for capital acquisition or development. The accumulation may result from surplus or earmarked operational revenues, funds in depreciation reserves, or the sale of capital assets.
- **Enterprise and Revenue Funds** - Many cities and parishes establish accounts that are earmarked for park and recreation programs. These accounts are used to fund programs and to acquire, operate, and maintain facilities.
- **General Obligation Bonds** - The use of this method involves the taxing power of a jurisdiction as it is pledged to pay the interest and principal to retire the debt. General obligation bonds can be sold to finance permanent types of improvements such as park and recreational areas and facilities. Voter approval may be required.

- **Lease-Purchase** - Local governments utilizing this innovative financing approach prepare standards and specifications for the development of a park by a private company. The facility is then leased to a jurisdiction for a specified period of time. Title to the park and facilities can be conveyed to the local government at the end of the lease period without future payments. The rental over the years will have paid the total original cost plus interest.
- **Eminent Domain** - The power of eminent domain allows a local government to acquire private property for public use. Although this is not a common practice for the acquisition and development of park and recreational areas, it is a tool that can be used to purchase property within certain areas of the City and Parish, particularly within established neighborhoods. The property would be acquired through condemnation with "just compensation" paid to the property owner.
- **Authorities and Special Districts** - Special authorities or districts such as a recreation district, which is allowed in Louisiana, may be created to provide public facilities such as parks and recreational areas. These authorities are commonly created to avoid the restrictive debt limitations of local governments. They may be financed through revenue bonds retired by user charges or fees, or in some instances, the authority may have the power to tax.

  Many parishes throughout the state have utilized this tool. The legislation enables the Police Jury to create a single or multiple recreation districts to own and operate recreation facilities and develop recreation activities. Since incorporated areas may also be included, Bossier City could participate through the dissolution of its present parks and recreation function, rededicating its assets to the newly established MPC Planning Area recreation district. Administration of the district's affairs would be similar to that which exists under the City's hand, with the appointment of a recreation board. The resulting five-member board of commissioners would consist of at least one appointee from each included municipality.

  The district is further enabled to issue bonds to acquire land, buildings and equipment, with voter approval as a prerequisite. An ad valorem tax may also be imposed with voter approval not to exceed 15 mills for a period not to exceed ten years for operations and maintenance.

- **Sales Tax** - Through a public referendum, a sales tax may be established of any size, typically one-half to one cent, to generate general revenue for the acquisition and development of parks and recreation areas. The sales tax may have a limited duration or may be permanent.
- **User Fees** - User fees may be an effective cost recovery technique to recover a reasonable portion of the costs to administer, operate, and maintain public parks and open space. Examples of user fees include registration or entry fees for recreational programs and equipment and facility rental charges.
- **In-kind Services and Volunteer Participation** – In-kind services may be coordinated with other departments and governmental entities to perform the labor on specific construction projects. Individuals, sports associations, private businesses, civic groups are just a few examples of entities and organizations that may furnish volunteer participation.

State and Federal Assistance

State and federal grants-in-aid are available to finance a large number of programs. The cost of funding parks may be borne completely by grant funds, or a typical requirement is a local share. Programs such as federal revenue sharing and Community Development Block Grants (CDBG) have given local governments more freedom on how they spend their grant money. Some of the programs currently available include:

- **Community Development Block Grant (CDBG)** - The use of CDBG funds may be used on projects, which benefit persons with low and moderate incomes. Funding is available on an 80/20 cost share basis.
- **Federal Land and Water Conservation Fund -** This fund is co-administered by the National Park Service and the Louisiana Department of Culture, Recreation and Tourism. Funds are available to provide planning, land acquisition and development assistance for "outdoor recreation." This is a 50-50 matching grant program administered through the state.
- **Urban Park and Recreation Recovery (UPARR) -** This program was established to provide matching grants and technical assistance to economically distressed urban communities providing direct Federal

assistance for rehabilitation of critically needed recreation facilities. It is designed to encourage systematic local planning and commitment to continuing operation and maintenance of recreation programs, sites, and facilities. Per the National Park Service website, three types of grants have been available through the UPARR program - Rehabilitation, Innovation, and Planning. Rehabilitation grants provide capital funding to renovate or redesign existing close-to-home recreation facilities. Innovation grants usually involve more modest amounts of funding aimed at supporting specific activities that either increase recreation programs or improve the efficiency of the local government to operate existing programs. Planning grants provided funds for the development of a Recovery Action Program plan.

- **Rivers, Trails and Conservation Assistance Program (RTCA)** - This program is available for planning assistance and technical assistance on projects emphasizing environmental protection, open space accessibility and construction. This program is available to qualified private organizations and local governments. Public involvement is a requirement of this program.
- **Transportation Equity Act for the Twenty-first Century (TEA-21)** - This program provides funding for transportation-related bicycle and pedestrian facilities. There is a Surface Transportation Program (STP) category, which allows cities and parishes the option of using bridge and road funds for providing bicycle and pedestrian facilities. Enhancements can include bicycle and pedestrian facilities, rail corridor preservation, scenic and environmental transportation opportunities and improvements to historical transportation sites. Funds from this program could be used to establish corridor linkages between neighborhoods and park and recreational areas.
- **Federal Lands Highway Funds** - This program provides funds for bicycle and pedestrian transportation facilities in conjunction with trails, roads, highways and parkways. The primary intent of this program is to assist in the construction of transportation facilities. This is a 100 percent federal share program. The use of this fund would primarily be for the acquisition of right-of-way and development of trail linkages connecting residential neighborhoods with the public parks system.
- **The Landscape Cost Sharing Program** - This program is administered by the State Department of Highways and Public Transportation. Through this program, there is 50 percent cost sharing available for both highway and pedestrian landscape projects on routes within the designated permanent state highway system.
- **America the Beautiful Tree Planting Program** - This program is administered by the Department of Forestry. This is an outgrowth of former President Bush's proposal to plant one billion trees in the United States by the end of the century to mitigate the greenhouse effect. Funding is available for public and private projects on a 50 percent cost share basis.
- **Cooperative Forestry Assistance Funds** - This program is administered by the Department of Forestry. Matching grants are available on a 50 percent cost share basis for projects including trails and greenways, beautification efforts, and public education and training. Grants range in size from $5,000.00 to $10,000.00 and may be matched with in-kind services or private financing.
- **American Greenways DuPont Awards Program** - This program is administered by The Conservation Fund, which provides grants of $500 to $2,500 to local greenway projects. Grants can be used for almost any activity that serves as a catalyst for local greenways planning, design, or development. Most of the grant programs are reviewed and selected on a competitive basis, therefore applications for funding will be evaluated based on the assessment of local need, the existence of an adopted Parks, Recreation and Open Space Master Plan, and the availability of local matching funds. Although grants provide an alternative means of financing local park and recreational area improvements, they should not serve as the sole basis for funding of a local park and recreation system.

Private Financing Alternatives

In addition to capital improvement financing and state and federal assistance, there are a variety of innovative approaches to financing public park and recreation areas. The use of incentives to encourage private

financing, public-private partnerships, land dedication or donation can be an effective strategy to develop an area wide park and recreation system without relying on the City and Parish to fully fund the program. In addition, the use of impact fees may help to offset the impacts of private development on the demand and use of public facilities and services. The following private funding approaches may be available.

- **Land Donation** - Property owners may be willing to donate land to the City or Parish for use as a public park. The City and Parish should encourage donation subject to established guidelines for the development of park and recreational areas. Considerations should include the suitability of the land for park development; conformance with the objectives of the Parks and Recreation Master Plan; and proximity to neighborhoods, natural features, and adjacent land uses.
- **Trust Fund** - The City and Parish could establish a trust fund for citizens to will a portion or all of their estate to public parks and recreational use. Legal provisions would need to be established for the conveyance of property. In addition, the City and Parish should establish and use guidelines for the acceptance of suitable parkland property. The Trust Fund would be incorporated as a 501(C) 3 non-profit corporation. This would allow possible income tax benefits for the donors.
- **Private Financing** - Community organizations or local service clubs could assist in acquiring and developing park and recreational areas by providing the local match for state or federal grants-in-aid. Another option is 100 percent financing by a private entity with dedication to the City or Parish.
- **Dedication** - As part of the subdivision process, the City and Parish may require an equitable and reasonable amount of land to be dedicated for park and recreational use. In order to abide by legal validity tests and to avoid a "taking" of private property, however, the amount of property to be dedicated must be roughly proportional to the demand for park and recreational services placed on the City and Parish by a private development.
- **Fee-In-Lieu of Dedication or Improvement** - The use of impact fees may be used to collect revenue for the acquisition and development of park and recreational areas. Similar to the dedication approach, the required fees must also be roughly proportional to the burden for the provision of park and recreational services resulting from private development. An example of a "fee-in-lieu of improvement" is a park excise tax that would require a developer to pay a fee (on a per square foot or per dwelling unit cost basis) upon issuance of a building permit.
- **Tax Deferral** - This method may be used to encourage property owners to defer the development of their land while the City or Parish use it for public open space or a semi-developed park. During the deferral period, the property would be assessed as an undeveloped parcel, with the collection of taxes to be deferred until the property is developed. The City or Parish would secure an agreement with the property owner with established conditions of use and provisions for liability and ongoing maintenance. In addition, the City or Parish would obtain a recreation easement for "temporary" use of the property.
- **Tax Reductions** - Donation of private land for public use may reduce an individual's federal income tax burden. Also, the market value of a recreation easement may reduce the tax burden either federally or locally, if approved by the local government.

Transportation

Planning in advance for thoroughfare development is important to meet future travel demands as the City and Parish continue to develop and to ensure safe and orderly movement of people and goods throughout the region. Effective thoroughfare planning contributes to economic development and is instrumental in reducing traffic congestion and environmental protection, both of which contribute to the quality of life of residents in the Bossier planning area. Although the automobile is the primary mode of transportation, with increased emphasis placed on the natural environment and the varying needs of residents, thoroughfare planning must look not only at the existing roadway network but at alternative modes of transportation, including pedestrian and bicycle circulation and public transportation to improve efficiency.

Transportation is of significant value and importance to Bossier as it is to the State of Louisiana and the nation. A transportation system offers the ability to depart from an origin and arrive at a destination in an efficient and timely manner. It allows the movement of goods, materials and services in a manner that permits the local and regional economy to function successfully. The transportation system is made up of a network of corridors that connect neighborhoods, business districts, and open spaces. These corridors define the shape and pattern of the community as well as the impression it leaves on tourists and residents.

The transportation element of the Bossier Comprehensive Land Use and Development Master Plan establishes a system to accommodate local and regional travel demand through 2020. It is closely coordinated with each of the various elements of the Master Plan to create a strong and successful areawide transportation network. As a reflection of today's system of travel, the transportation element will focus largely upon the street and thoroughfare system. However, it will also place renewed emphasis upon the ability to travel throughout the area without an automobile, via walking, bicycling and use of public transportation. Likewise, the transportation element will discuss the importance of regional, national and international interconnectivity through rail, truck, air and water travel.

The purpose of the Transportation element is to address area wide mobility needs on all levels, from sidewalks and trails, to local streets and neighborhood access, to arterial roadways, highways, railroads, airports and waterways. The principal aim of transportation planning is to ensure safe and efficient movement of people and goods. This plan element includes a new Thoroughfare Plan, which is the long-term general plan for developing an overall system of thoroughfares for the Bossier planning area. The plan will be a guide for securing needed rights-of-way and upgrading and extending the network of streets, roads and highways within the MPC planning area in an orderly and timely fashion as the area continues to grow and the public's mobility and access needs increase.

The transportation element consists of five general sections as follows:

- **Key transportation related issues** confronting the City and Parish as articulated by residents and other stakeholders during a community meeting series.
- **Goals, objectives and action statements** to guide implementation of the transportation element.
- Elements of the existing network and other important components of an **effective, multimodal transportation system**.

Introduction
Area Profile
Vision & Goals
Market Assessment
Land Use
Parks & Open Space
Transportation
Utilities & Infrastructure
Housing
Image & Design
Facilities & Education
Policies & Strategies
Implementation

- Details of the **Master Thoroughfare Plan**.
- Discussion of **funding sources** available for implementation of the Transportation element.

Transportation Issues

In conjunction with the Master Plan Advisory Committee (MPAC) as well as the input received from dozens of citizens who participated in a community meeting series, there were a number of key transportation issues identified, including the following:

Enhancement of Areawide Mobility

Transportation mobility is the economic lifeblood of an urban area. Bossier benefits from its central location among major southwestern cities, including New Orleans; Dallas, Texas; Houston, Texas; Jackson, Mississippi; Little Rock, Arkansas; and, Memphis, Tennessee. Together, Bossier City and Shreveport form a major transportation hub serviced by Interstates 20, 220, and 49, and U.S. Highways 71, 79, and 80. The future construction of I-69 (known as the NAFTA Trade Corridor) to be routed within the Parish to the east of Bossier City will also enhance interstate mobility and commerce. Bossier's placement within the regional and national picture is of significant importance to the City and Parish. As improvements occur throughout the MPC Planning Area, the transportation system must be adjusted to add or widen streets, provide turn lanes, improve intersections, and manage new trip generators.

Railroad Grade Crossings

The significant presence of rail in Bossier is of great economic benefit while also a liability to traffic movement and safety. Numerous issues were raised by residents through focus group interviews and public meetings regarding the need to address railroad grade crossings, particularly as they relate to both traffic safety and efficiency. Grade crossings in Bossier have historically caused traffic delays at busy roadway intersections and they often serve as a physical barrier that divides neighborhoods. They can also result in dangerous and potentially fatal traffic conflicts. Comments from Bossier residents included the need for railroad scheduling, overpasses or grade separation, and possible rail realignment.

Walkability

Among the various issues regarding transportation, the most often cited concern was the need to address pedestrian infrastructure in Bossier. The vast majority of trips that occur throughout the planning area are by single occupant vehicles due to the sprawling development patterns and because the transportation system is not well equipped to handle walking as an alternative to driving. Many neighborhoods have incorporated sidewalks, however, they lack continuity and connection within and between neighborhoods and other districts. A true "system" of transportation improvements offer a variety of modes, including driving, bicycling, walking and high occupancy vehicles such as carpooling and public transportation.

Public Transportation

In tandem with walkability is the need to have an effective and comprehensive public transportation system that can allow users to reach a destination without a vehicle. While this method will not replace the automobile as the standard and preferred means of travel, the availability of public transportation and pedestrian friendly neighborhoods can play a significant role in achieving efficiency in the transportation system. SporTran, provides routes through Bossier, however, the service area is limited and coverage is not designed to compete with automobiles as an alternative means of transportation. Residents have suggested incorporation of light rail for commuters and expanding bus transportation through a diversified fleet of small and medium size buses.

Multimodal Transportation

The transportation of people, goods, materials, and services is best achieved through a variety of transportation alternatives. In Bossier, the transportation system not only includes streets, but also rail service, waterborne traffic through the Port of Shreveport-Bossier, and air travel through the Shreveport Regional Airport. Each of these nodes generate traffic that can impact the capacity of the existing network of streets and rail lines.

Access Management

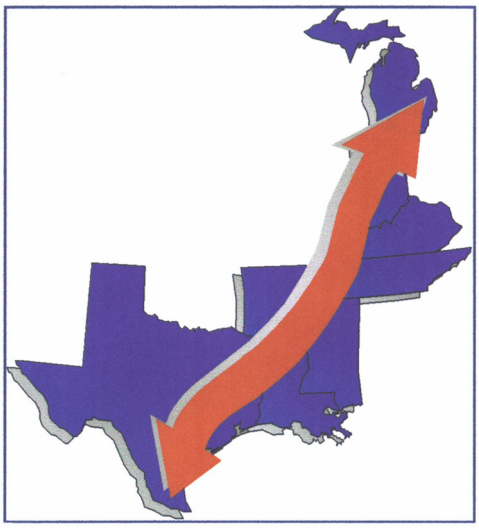
The transportation system is designed to provide access to adjacent land uses and intersecting streets. However, the number of access points can directly affect the efficiency

and safety of the street system. Too many points of ingress and egress along a corridor can significantly impede traffic flow and result in more vehicular and pedestrian conflicts. On the other hand, too few access points can result in reduced marketability of area property. An efficient system is properly regulated with regard to the number and placement of curb cuts, traffic signals and signage. Bossier residents raised concerns about access lanes for businesses along major corridors, signal synchronization, misuse of center turn lanes, and neighborhood access problems associated with railroads and other events.

Transportation Plans and Related Studies and Ordinances

- *Subdivision Regulations* – The Subdivision Regulations, which were adopted in 1975, govern the layout, design and standard of development of the street network within the MPC planning area. The regulations address the functional classification of streets, the width of street rights-of-way and pavement, standards of alignment and design, and property access. The subdivision regulations are being updated and unified with the zoning and other development-related ordinances as part of the plan development process.

- *Railroad Grade Crossing Study* – Commissioned by the City of Bossier City in 2001, the primary purpose of this study was to evaluate the railroad impacts on vehicular traffic operations and identify improvement needs at a series of highly congested railroad crossings. The study evaluated the existing vehicular and railroad traffic conditions, identified delays and hazards, and recommended improvements such as grade separations, roadway widening, installation of warning devices and other traffic control/site improvements. Its conclusions and recommended improvements are further discussed later in this chapter.



Source: Wilbur Smith Associates

Corridor 18, foreshadowing I-69, extends from Michigan south to Texas substantially improving over the road transportation and trade, ultimately connecting Canada and Mexico.

- *Shreveport-Bossier Area Metropolitan Area Transportation Plan, 1990-2010* – Developed by the Shreve Area Council of Governments, now known as the Northwest Louisiana Council of Governments, the Transportation Plan provides a framework for planning and development of the region's transportation system through 2010. Change in the Bossier-Shreveport area, including the projected growth, made this plan imperative to provide continuing attention to ongoing development of the transportation system. The plan identified committed roadway improvements and short and long-range improvement needs throughout the metropolitan area. Major roadway projects such as the extension of I-49 and the proposed I-69 corridor have prompted the Council of Governments to update its Metropolitan Transportation Plan, which is in the final stages of development as this plan was prepared.

- *Corridor 18 Feasibility Study* – In the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), Congress designated certain highway corridors of national significance to be included in the National Highway System. In this legislation, Corridor 18 was defined as extending from Indianapolis, IN to Memphis, TN. Subsequent legislation extended the corridor to Houston, Texas via Shreveport-Bossier City, Louisiana. This study produced data concerning cost, economic efficiency, impacts on economic development, financial viability and other issues for the corridor. The study concluded that the project was indeed feasible and it would enhance freight transportation and trade, improve economic

efficiencies, as well as enhance access to intermodal facilities and military installations.

- *Corridor 18 Special Issues Study* – On the heels of two previous studies including the Corridor 18 Feasibility Study, the Special Issues Study addressed issues that will impact the future location and environmental considerations of the proposed corridor. Additionally, the study addressed significant location issues such as major river crossings, state line crossings (Louisiana/Texas) and connections to the urban areas such as Shreveport-Bossier City. The study identified the preferred location along the eastern edge of Barksdale Air Force Base, which is now under consideration for the alignment of I-69.
- *Bossier Parish Focus Forum Report* – As part of the Louisiana Community Futures Forum, a statewide needs assessment sponsored by the Louisiana Cooperative Extension Service, this report presents the results of a forum held in the Parish. The outcome of the forum pertaining to infrastructure was discussion to facilitate population growth within Bossier Parish. Identified action steps included the need to create north/south expressways throughout the Parish and relocation of existing rail service.
- *Traffic Study for the Downtown Bossier Redevelopment Plan* – Completed in 1995, this study was part of a larger redevelopment plan conducted for Bossier City. The Traffic Study analyzed the traffic system in areas of North Bossier regarding existing conditions and traffic patterns, parking, transit and other elements. The report included roadway, parking, transit, signage and pedestrian access recommendations.
- *Bossier City Arena Traffic Impact Study* – In anticipation of the CenturyTel Center, which has since been completed, this report analyzed the existing transportation conditions, developed traffic generation forecasts, evaluated traffic impacts and established recommendations for improvements. The study concluded that a combination of roadway and traffic control improvements would most efficiently accommodate future Arena traffic and improve traffic operation in the area.

Transportation Goals, Objectives and Action Statements

The following goals, objectives and actions form the bridge between the identified transportation issues and the recommended implementation actions. Based upon feedback through a variety of public meetings, focus group interviews and advisory committee meetings, the following statements are intended to provide guidance for the long-term development of the regional transportation system. In summary, the transportation goals include:

- Improve mobility through key thoroughfare improvements, new construction and enhancing the existing street infrastructure.
- Mitigate railroad grade crossing conflicts to reduce interference with other modes of transportation.
- Promote pedestrian and bicycle pathways as a viable alternative to automobile traffic, particularly one that is tied to a public transportation system.
- Enhance the public transportation system to allow the combination of walking and public transportation to be considered a viable alternative to automobile use in the MPC Planning Area.
- Enhance the coordinated use of street, rail, water and air transportation as a single system designed for the efficient movement of people, goods and materials.
- Manage access to land uses from the transportation system in order to reduce or minimize the risk of accidents and increase travel efficiency.

Enhancement of Areawide Mobility

The new Master Thoroughfare Plan Map identifies the forecasted build-out of the MPC Planning Area transportation system. Incremental development of the street network will occur concurrent with private development through dedication and construction of adjacent streets and through various local, parish or state initiated projects.

Goal 7.1: Improve mobility by key thoroughfare improvements, new construction and enhancing the existing street infrastructure.

Improved areawide mobility requires coordination with future land uses (i.e. the Future Land Use Map) and cooperation between various jurisdictions.

Objective A: Coordinate with the Louisiana Department of Transportation and Development (LA DOTD), Shreveport/Bossier City MPO, Northwest Louisiana Council of Governments, Bossier City, and Bossier Parish to anticipate and implement pending transportation system improvements.

Objective B: Revise ordinances as needed to improve the character and efficiency of the local street network, including both new and existing streets.

Objective C: Adopt a roadway classification system that permits for added flexibility in street design yet improves overall network functionality.

Objective D: Provide sufficient interconnection between neighborhoods and other areas to ensure appropriate emergency response times and to encourage enhanced interaction between areas.

Action 7.1.1: Coordinate with LA DOTD for improvement of Barksdale Boulevard to a five-lane configuration.

Action 7.1.2: Coordinate with the City of Shreveport to provide for thoroughfare system development and additional bridges across the Red River. For example, link McDade Street in Bossier City to Stoner Avenue in Shreveport and widen the Jimmie Davis Bridge.

Action 7.1.3: Expand Arthur Teague Parkway north through to Traffic Street and south to ultimately connect with Curtis Sligo Road.

Action 7.1.4: Enhance and extend Winnfield Road to connect with Airline Drive.

Action 7.1.5: Improve and extend Caplis-Sligo Road to connect Curtis-Sligo Road to Hill Road (LA 527).

Action 7.1.6: Enhance Wafer Road and extend south of U.S. 79/80 to tie into I-20.

Action 7.1.7: Enhance access to and circulation in the vicinity of the CenturyTel Center by extending Teague Parkway to link with new collector routes including the extension of Sunflower Boulevard, Golden Meadow Drive, and Hope Street, ultimately connecting to Curtis-Sligo Road.

Action 7.1.8: For additional connectivity and mobility, extend Sunflower Boulevard as a minor arterial south and east to Barksdale Boulevard.

Action 7.1.9: Enhance Industrial Drive as it connects with Bodcau Station Road and an interchange at I-20.

Action 7.1.10: Extend Shed Road to Bellevue Road in the Red Chute area.

Action 7.1.11: Improve Adner Road to minor arterial street standards and establish a new north/south minor arterial street between Winnfield Road and U.S. 79/80 linked to the eastern terminus of Adner Road.

Action 7.1.12: Extend Greenacres Drive easterly as a collector to Swan Lake Road.

Action 7.1.13: Extend Wemple Drive westerly to Benton Road and easterly to Swan Lake Road.

Action 7.1.14: Begin to acquire additional right-of-way, where available, to improve collector and arterial classified roadways.

Action 7.1.15: Coordinate land development decisions with the Master Thoroughfare Plan to ensure that the integrity of the street system is maintained and that access and circulation are acceptable both on and off site.

Action 7.1.16: Identify opportunities for acquiring undeveloped lots or other parcels to extend

collector roadways within developing areas to provide for adequate connections between developments.

Action 7.1.17: Limit the construction of dead-end streets or cul-de-sacs that prevent interconnection of the street system.

Action 7.1.18: Establish a formalized partnership with LA DOTD, Bossier City, Bossier Parish and the NLCOG to regularly discuss and coordinate area wide transportation improvements within the MPC Planning Area. Key issues include rights-of-way preservation, thoroughfare improvements, trails and bikeways and public transportation.

Action 7.1.19: Extend Viking Road north under IH 220 to tie into Airline Drive.

Railroad Grade Crossings

Numerous rail lines that pass through Bossier City and Bossier Parish are an economic amenity because of the significant goods and materials that pass through the area, including several destinations in the region. However, the location of the rail lines also creates transportation issues because of traffic congestion when the rail lines are in use. While care must be exercised to preserve the functional utility of rail corridors, traffic conflicts between railroads and motor vehicles, pedestrians, and bicycles are a significant concern.

This is largely due to the number of at-grade crossings with few alternative routes. Constructing grade separated overpasses major railroad-roadway intersections and traffic safety improvements at existing crossings are potential solutions. Several key conflicts between railroad and vehicular traffic have been identified in conjunction with the recent analysis, "Railroad Grade Crossing Study" performed by WSA for Bossier City.

Goal 7.2: Mitigate railroad grade crossing conflicts to reduce interference with other modes of transportation.

Objective A: Initiate major improvements to significant automobile/rail conflict intersections.

Objective B: Coordinate with LA DOTD and the U.S. DOT to improve safety conditions of rail lines and specifically highway/rail grade crossings throughout the MPC Planning Area.

Congestion at the main entrance to Barksdale Air Force Base is magnified when movement is interrupted by trains. Implementation of recommendations in the "Railroad Grade Crossing Study" should help to alleviate the problem.

Objective C: Analyze the possibility of railroad relocation in a manner that can benefit area residents,, the railroad companies and economic development opportunities.

Action 7.2.1: Implement the grade separation project on Benton Road at the KCS rail line.

Action 7.2.2: Consider implementation of grade separations on Airline Drive (S of IH-20) at the KCS rail line as well as on East Texas at the UP rail line to eliminate vehicle/train conflicts.

Action 7.2.3: In coordination with LA DOTD, analyze and make necessary recommendations for highway/rail grade crossing safety initiatives at key crossings, including at Airline Drive (South of Northside) at KCS, Hamilton/Shed Road at UP, Barksdale Boulevard at KCS, and Benton Road (North of Shed Road) at KCS to improve warning/protection of vehicular traffic.

Action 7.2.4: Coordinate with the railroad companies (Union Pacific and Kansas City Southern) for future thoroughfare improvements that intersect railroad right-of-way.

Action 7.2.5: Coordinate and communicate with the railroad companies (Union Pacific and Kansas City Southern) as well as LA DOTD and the U.S. DOT to identify safety and traffic congestion solutions,

including limiting rail service during peak traffic hours and establishment of a speed limit through urbanized areas.

Action 7.2.6: Consider coordination with the LA DOTD and U.S. DOT to identify the feasibility of rail line consolidation and/or rail line realignments away from the urbanized area to be situated closer to customers and potential warehousing/distribution activities associated with the development of the Port of Shreveport/Bossier and the proposed IH 69 corridor in the southeastern portion of the MPC Planning Area.

Walkability

The key components to creating a walkable environment include ensuring that pedestrians paths are available, and convenient; the distance between destinations is relatively short; the duration of the walk is entertaining and comfortable; and that other forms of transportation are available for traveling longer distances.

Sidewalks, street separation and shade from large trees provide an inviting environment that is conducive to walking.

Pedestrian routes are generally linked to sidewalk and trail systems. Those neighborhoods that include such systems rarely ensure that they are connected to surrounding systems. Connections to other types of uses, such as commercial sites or higher density housing are almost nonexistent with the exception of historic areas such as North Bossier.

Goal 7.3: Promote pedestrian and bicycle pathways as a viable alternative to automobile traffic, particularly when tied to a public transportation system.

Objective A: Pursue development of a communitywide bicycle and trail network that links neighborhoods with other destinations, including, schools, parks, the riverfront, entertainment areas and commercial opportunities.

Objective B: Improve subdivision design to promote an efficient and enjoyable pedestrian experience.

Objective C: Maintain and expand the existing system of sidewalks in the MPC Planning Area.

Action 7.3.1: Conduct a comprehensive and detailed inventory of sidewalks and other pedestrian facilities throughout the community and prioritize needed improvements by use and proximity to public facilities.

Action 7.3.2: Pursue additional grant opportunities through LA DOTD's Transportation Enhancement Program similar to pending projects such as the McDade Street Corridor Enhancement Project and the Civil War Red River Campaign Trail project.

Action 7.3.3: Establish an ongoing pedestrian and bicycle system planning program to acquire easements and rights-of-way, through fee simple purchase or dedication, in conjunction with or preferably in advance of development.

Action 7.3.4: Acquire conservation easements within the floodplain and along Willow Bayou, Flat River, Fifi Bayou, and the Red River as greenbelt corridors.

Action 7.3.5: Identify secondary arterials, collectors and local residential streets that are suitable for designation as a bicycle route.

Action 7.3.6: Seek Federal and State financial assistance grants for pedestrian and bicycle transportation projects, such as transportation enhancement funds under the Transportation Equity Act for the 21st Century (TEA-21).

Action 7.3.7: Allocate capital improvement funds on an annual basis to construct pedestrian walkways, sidewalks, crosswalks, handicap accessible ramps

and curb cuts in areas with significant pedestrian traffic, such as North Bossier, along major transportation arteries such as Airline Drive, Benton Road and Barksdale Boulevard, around elementary and middle schools, public parks, and public buildings.

Action 7.3.8: Consider funding sources such as improvement districts, Community Development Block Grants, transportation enhancement funds, and public-private partnerships for sidewalk improvements along existing roadways in established neighborhoods.

Action 7.3.9: Maintain block lengths of less than 500 feet or require incorporation of mid-block pedestrian pathways.

Action 7.3.10: Utilize pedestrian paths to create interconnection between parks, schools, neighborhoods and other sites of interest.

Action 7.3.11: Provide street furniture and vegetation to complement the pedestrian experience.

Public Transportation

SporTran is the most obvious of three public transportation programs operating in the MPC Planning Area. Bossier City has historically shown a hesitancy to expand SporTran's service and the carrier is unable to expand outside of incorporated boundaries. Other programs are designed only for support on an irregular basis. Yet walkability is strongly linked to public transportation. Without the ability to travel extensive distances without an automobile, it is likely that even the most pedestrian friendly neighborhood will not realize a rise in destination oriented pedestrian trips without public transportation.

Goal 7.4: Enhance the public transportation system to allow the combination of walking and public transportation to be considered a viable alternative to automobile use in the MPC Planning Area.

Objective A: Ensure that all neighborhoods and employment centers in the MPC Planning Area are within a ten–minute walking distance of a bus stop.

Objective B: Provide a single, coordinated public transportation system that offers service throughout the residential and employment centers of the MPC Planning Area.

SporTran is the primary public transportation provider in Bossier City, while other agencies such as the Council on Aging, provide transit services for residents with special needs.

Action 7.4.1: Conduct a transit study to evaluate the most efficient and cost-effective service options for expansion.

Action 7.4.2: Coordinate with Bossier City to gain approval necessary to expand public transportation service in and around Bossier.

Action 7.4.3: Seek funding assistance from the Federal Transit Administration (FTA), Louisiana Department of Transportation & Development (LA DOTD) or through a local referendum to subsidize fare box revenues.

Action 7.4.4: Expand SporTran shuttles used for the Independence Bowl for other area special events held at the CenturyTel Center.

Action 7.4.5: Develop a park-and-ride program to provide ridesharing opportunities to and from communities in the Planning Area and other regional employment destinations.

Action 7.4.6: Create bus stops and stations to reflect a public transportation system that serves as a viable alternative transportation source to automobile traffic.

Action 7.4.7: Coordinate with local leaders to amend all ordinances and legislation that restrict development of a single public transportation service provider for the entire MPC Planning Area.

Multimodal Transportation

Maximization of the transportation system includes utilizing the Port of Shreveport-Bossier, Shreveport Regional Airport, and Shreveport Downtown Airport as significant components to the transportation system. Air travel allows for people and goods to be made available quickly, regardless of distance. The Port provides an economical means of moving goods and materials through Louisiana and the country.

Goal 7.5: Enhance the coordinated use of street, rail, water and air transportation as a single system designed for the efficient transportation of people, goods and materials.

Objective A: Ensure that adequate rail and street service is available to the Port of Shreveport-Bossier and the Shreveport Regional Airport.

Objective B: Build upon the competitive advantages offered by the presence of the Port and airports by enhancing all aspects of the multimodal system.

Source: Intermodal Association of North America

Multimodal transportation networks are taking hold in the Bossier region through the continued expansion of the port, airport and fruition of the I-69 project.

Action 7.5.1: Seek out development of the I-69 corridor in a location that allows for improved service to the Port and Shreveport Regional Airport.

Action 7.5.2: Endorse continued internal improvements to the Port and airport systems.

Action 7.5.3: Coordinate among all components of the multimodal system to determine growth needs of all components, including air, water and rail.

Action 7.5.4: Study and improve movement of goods between Bossier Industrial Park and the Port and airport facilities.

Access Management

The efficiency of the local transportation system depends upon the ability to move people and goods without interruption. Access management ensures that traffic flow is not impeded while vehicles enter or exit adjacent land uses.

Goal 7.6: Manage access to land uses from the transportation system in order to reduce or minimize the risk of accidents and increase travel efficiency.

Increased access management will result in enhanced efficiencies, fewer auto accidents, and improved mobility with fewer curb cuts, more median breaks and synchronized traffic signals.

Objective A: Institute access management techniques through incorporation into local ordinances and alleviation of potential conflict points.

Action 7.6.1: Implement standards to manage access, including the number of driveways, their location,

spacing; street intersections and connections; medians and median breaks; marginal access roads; traffic signal location and timing; turn lanes and acceleration/deceleration lanes; and, pedestrian and bicycle facilities.

Action 7.6.2: Adopt/reinforce a driveway ordinance to include guidelines regarding the design, construction, location, width, spacing, radius, offset and coordination of driveways on principal and minor arterials and collectors roadways.

Action 7.6.3: Acquire additional right-of-way as needed to address areas of congestion caused by the lack of access management and develop turn lanes and acceleration/deceleration lanes as appropriate.

Existing Transportation System

As noted in the Area Profile, the Bossier MPC Planning Area is located in northwestern Louisiana along the eastern bank of the Red River. With Shreveport opposite Bossier City along the river, and proximity to Arkansas and Texas, it is the heart of the Ark-La-Tex region.

Two major interstate highways, I-20 and I-49, intersect this region. With the development of the Port of Shreveport-Bossier and its proximity to the Interstate Highway System and the Shreveport Regional Airport, the region is well suited for a variety of economic development activities. Bossier City is well connected to other urban centers. Along I-20, Dallas, Texas is approximately 200 miles west and Monroe, Louisiana is approximately 100 miles east. Little Rock, Arkansas is approximately 210 miles north and Lafayette, Louisiana is 227 miles south along the I-49 corridor. Bossier City and the surrounding MPC Planning Area is a focal point of activity in Bossier Parish. Other communities in the Parish are primarily along three radiating corridors. North of Benton along LA 3 are Hughes, Plain Dealing and Bolinger. East of Bossier City along I-20 is Haughton and south along U.S. 71 are Elm Grove and McDade. All but Elm Grove are outside the MPC Planning Area.

The Red River is also an important component of the region's transportation system allowing barge access to and from the Mississippi River, which is the nation's largest river system. Situated along the Red River, the Port of Shreveport-Bossier City links customers throughout the Ark-La-Tex region to domestic and international markets via the Mississippi River and the Gulf Intracoastal Waterway.

The existing roadway system, traffic conditions and travel patterns on the highway and street network were evaluated using information obtained from the Northwest Louisiana Council of Governments and the City of Bossier City. This evaluation was needed to assist in determining long-range needs for thoroughfare system development. Other transportation modes, facilities, and services were also identified for this element.

Existing Roadway Network

A network of State, Parish and local highways, roads, and streets comprise the surface transportation system in the Bossier planning area. Connections to other major state highways and the National Highway System (NHS) contribute to the growth of the overall regional economy. The purpose of the NHS is to provide an interconnected system of principal arterial routes that serve major population centers, international border crossings, ports, airports, public transportation facilities, other intermodal transportation facilities and other major travel destinations; meet national defense requirements; and serve interstate and interregional travel. The roadway network in the Bossier planning area includes the following facilities:

Interstate Highways

Proximity to Interstate Highways is essential for the movement of people and goods throughout the region. The area's transportation network is complemented by the presence of the following interstate corridors:

Interstate Highway 20 - This east-west controlled access highway links Bossier City to Shreveport and Dallas/Ft. Worth (and ultimately I-10 east of El Paso, Texas) to the west and Monroe, Louisiana to the east (and ultimately I-95 east of Columbia, South Carolina).

Interstate Highway 220 - This limited access corridor serves as a northern bypass of the Shreveport-Bossier City urbanized area. The presence of Barksdale A.F.B. is a limiting factor to extending this facility south of I-20 to form a complete loop around the urbanized area. I-220 exits I-20 near the Shreveport Regional Airport and connects back to I-20 near the eastern extents of Bossier City's corporate limits. The southern segment is discontinued in

Shreveport, but will ultimately tie into the I-69 alignment upon completion.

Interstate Highway 49 - Louisiana's newest interstate corridor connects Shreveport to Lafayette via Alexandria/Pineville. The I-49 corridor is part of ISTEA/NHS High Priority Corridor 1, which extends between Shreveport, Louisiana, and Kansas City, Missouri. Interstate 49 will follow U.S. 71 from its current northern terminus in Shreveport north into Arkansas. A number of corridor-specific improvements have been identified for consideration in the *State Highways of Significance Plan*, which includes extension of I-49 north from I-20 to the Arkansas line.

U.S. Highways

The U.S. Highway system was a predecessor to the Interstate Highway System. A number of U.S. Highway corridors traverse the Ark-La-Tex region, four of which are within the planning area, including:

U.S. 79 – U.S. 79 runs southwest/northeast occupying the same alignment as U.S. 80 within the planning area. U.S. 79 originates in Round Rock, Texas and terminates in Russellville, Kentucky.

U.S. 80 – U.S. 80 runs east/west parallel to I-20. Through much of the planning area the route is shared with U.S. 79. Significant growth in the northeastern portion of the planning area continues to increase traffic volumes adding to an already congested condition.

U.S. 71 – U.S. 71 runs north/south and parallels the east side of the Red River. To the south, it connects Alexandria, Louisiana parallel to I-49 and ends at U.S. 190 near the Atchafalaya River. To the north, the corridor ties much of the Great Plains terminating in International Falls, Minnesota.

U.S. 171 - Known as Louisiana's "Western Corridor", U.S. 171 runs south to connect to Lake Charles, Louisiana. Many portions of the corridor have been improved to four lanes, but significant stretches remain two lanes. The remaining improvements are tied to LA DOTD's Transportation Infrastructure for Economic Development (TIMED) program, which is a 15-year (1990 – 2004) construction program funded by a four cent fuel tax.

State Highways

Several thoroughfares in the MPC Planning Area are maintained by the Louisiana Department of Transportation & Development (LA DOTD), including:

LA 3 – Also known as Benton Road, LA 3 runs north from its point of origin at Old Minden Road near Barksdale Boulevard (U.S. 71) connecting to Arkansas S.H. 29. This highway segment is one of the area's busiest roadways since L.A. 3 connects rapidly growing suburban areas between Bossier City and Benton. The Arkansas portion connects to Interstate 30 in Hope, AR.

LA 3105 – LA 3105, also known as Airline Drive, originates at Barksdale Boulevard and continues north parallel to L.A. 3 (Benton Road). Similar to Benton Road/L.A. 3, this roadway is heavily utilized as a commuter corridor between the developing portions of the Parish and the Bossier urban area.

LA 782-1 – This short route is an extension of Patricia Drive and connects LA 3105 (Airline Drive) to LA 185 (Northgate Road).

LA 782-2 – LA 782-2, also known as Industrial Drive, is a spur of LA 72 (Old Minden Road) that connects to U.S. 79/80 (E. Texas Street). Parallel to I-20 and the KCS Railroad, the corridor is dotted with warehousing, distribution and light industrial uses.

LA 72 - Also known as Old Minden Road, this east-west corridor ties into I-20 and Industrial Drive and originates on the west at Traffic Street.

LA 185 - LA 185, or N. Gate Drive, originates at Old Minden Road near Airline, runs southeast and provides secondary access to Barksdale A.F.B.

LA 3032 - LA 3032, or W. Gate Drive is a short corridor that connects Barksdale A.F.B. to Shreveport where it becomes Shreveport Barksdale Highway before terminating at LA 1 (Youree Drive).

LA 511- In the southern portion of Bossier City, LA 511 or Jimmy Davis Highway originates at U.S. 71 (Barksdale Blvd.) traversing the Red River to connect to Shreveport. In Shreveport, LA 511 is known as W. 70th Street as it proceeds westerly providing connections to Bert Kouns Industrial Loop (LA 526), I-49, Shreveport Regional Airport, Airport Industrial Park, West Shreveport Industrial Park and Greenwood. It is the southernmost of five bridges tying to Caddo Parish.

LA 612 - LA 612 originates at U.S. 71 in southern Bossier City. Also known as Curtis Sligo Road, this roadway connects

the communities of Curtis and Sligo, which are realizing rural development and congestion.

Table 7.1
Bossier Area Traffic Volumes

Street	Intersection	ADT
Airline	Crosscheek Road	11,517
	Greenacres Blvd	19,908
	Old Minden Road	42,107
	Pierre Bossier Mall	36,530
	Shed Road	44,370
Arthur Ray Teague Parkway	McDade Street	13,980
Barksdale Blvd.	Airline Drive	47,062
	Bellaire	26,350
	Central Park Drive	17,495
	Hamilton Road	20,847
	Jimmie Davis Hwy.	30,997
	Shady Grove Drive	33,080
	Westgate Drive	56,137
Benton Road	Beckett Street	32,515
	Burns Drive	31,371
	Greenacres Blvd	25,458
	Riverwood Drive	34,321
	Shed Road	36,397
E. Texas Street	Airline Drive	53,826
	Benton Road	50,603
	Hamilton Road	27,409
	Industrial Drive	29,387
	Pierre Bossier Mall	25,093
	Swan Lake Road	25,847
	Traffic Street	29,832
I-20	Airline Drive	49,350
	Hamilton Road	21,945
	Industrial Drive (E/B)	18,307
I-220	Airline Drive	39,549
	Benton Road	38,927
	E. Texas Street (E/B)	20,816
Isle of Capri Blvd.	Arthur Teague Parkway	17,362
Jimmie Davis Hwy.	CenturyTel Center Drive	29,535
	Sunflower Blvd.	19,197
LA 154	U.S. 71	2,070
LA 612/Curtis Sligo Road	U.S. 71	6,264
Old Minden Road	Benton Road	12,784
	Benton Road Spur	45,520
	Preston Blvd.	18,842
	Waller Avenue	14,191
Patricia Drive	Northgate Road	18,231

LA 527 - Originating at U.S. 71 in the community of Taylortown, LA 527 terminates at Lake Bastineau State Park in Webster Parish to the east.

LA 154 - This two-lane corridor also originates at U.S. 71 in Elm Grove in the southernmost portion of the planning area. LA 154 meanders easterly through Bienville Parish and northerly to Claiborne Parish, terminating in Athens at LA 9.

Traffic Volumes

Traffic volumes identify existing travel patterns and assist in determining the ability of the transportation system to serve the area's travel demands. The most recent available average daily traffic volume counts for major area roadways were obtained from the District 4 Office of the Louisiana Department of Transportation and Development (LA DOTD). The office records average daily travel (ADT) volume counts for stations throughout the planning area and maintains data from 1973 (in most cases) forward.

The traffic volume data displayed in **Table 7.1 – Bossier Area Traffic Volumes**, clearly show the rise in traffic on roadways approaching Bossier City and the drop-off as roads leave the urban area. The highest average daily traffic volume in Bossier City in 2001 was the 56,137 average daily traffic (ADT) on Barksdale Boulevard at Westgate Drive. There are significant volumes on both Benton Road and Airline Drive ranging from 19,908 vehicles at Airline and Greenacres to 44,370 vehicles at Airline and Shed Road. Data collected for various dates at stations located in the unincorporated areas of Bossier Parish consistently exhibit an increase in traffic volume. The most marked increases were noted in the northern and eastern portions of the Bossier City area where much of the recent development has occurred.

Transportation Modes

Opportunities abound for the enhancement of multimodal transportation options in the Bossier area, representing improvements to economic development, recreation, the environment, and local quality of life. The term multimodal refers to the range of transportation modes that form an urban transportation system, including single occupant vehicles, multiple occupant vehicles such

as car/van pools and public transit, walking, bicycling, rail, air and water. The following subsections inventory each mode of transportation in the Bossier planning area, including regional facilities that serve the travel demand needs of Bossier's residents even though they may be located in Shreveport.

Walking and Biking

A dynamic, multimodal transportation system encompasses a variety of transportation options, including those that are the most basic: walking and bicycling. In Bossier, similar to most other urban areas, the role of walking and biking has diminished significantly over the years as dependence on the automobile has increased. In recent years though, there has been a renewed interest in making communities more livable, which means making neighborhoods, commercial districts and centers, and public spaces more pedestrian friendly and walkable.

Over the last several decades, dependence upon the automobile as the preferred mode of transportation has become a national trend. This trend is apparent in the Bossier planning area as witnessed by the increasing importance on transportation infrastructure improvements and specifically in the outward development pattern that is occurring. Reliance on the automobile has resulted in more choice in how and where to live, work and play.

However, dependence upon the automobile has not come without cost – a cost that is being realized in the form of increased taxes, reduced levels of public services such as police and fire protection, less affordable housing, degradation of green space and environmentally sensitive areas, pollution of air and water, and many other well documented costs. The automobile has changed development patterns causing land uses to be segregated, setbacks to be increased, and nearby neighborhoods to become rural subdivisions outside of corporate limits. All of these occurrences have contributed to reduced accessibility and less walkable communities.

Not unlike most urbanized areas, the Bossier region's transportation system is highly automobile oriented, and much of this element addresses improved mobility focused on the street system. However, the importance of other modes of transportation, including walking, bicycling and public transportation is not overlooked. Each travel mode plays a vital role in the overall transportation system and is addressed accordingly.

Pedestrian System Planning

Pedestrian walkways, sidewalks and crosswalks are part of the City's existing transportation system that serve the needs for pedestrian movement in residential neighborhoods, commercial business areas, and around schools, parks and other community facilities. Safe and well-maintained pedestrian facilities are particularly needed in the older established areas and in areas that did not have sidewalks installed before they were required by the Bossier City-Parish MPC Subdivision Regulations.

The nature and extent of the sidewalk inventory has not been formally evaluated. However, consideration should be given to conducting such an assessment to ensure proper and timely maintenance of sidewalk facilities, implement compliance with the American's with Disabilities Act (ADA) and establish sidewalks in neighborhoods that warrant them. Locally drafted and administered ordinances should also restrict obstacles on sidewalks such as parked vehicles and trailers, which are a hindrance to pedestrian mobility.

Eliminating barriers to pedestrian mobility is one of the most important features in planning and developing an effective pedestrian network. Freeways, major arterials, railroads, and rivers and bayous all impose significant barriers to access and mobility. Barriers may be reduced or eliminated through shifts in subdivision design, fully integrating concepts of neighborhood schools, parks, retail/service and other public facilities.

The Influence of Neighborhood Design on Pedestrian Mobility

Most modern subdivision street patterns are highly auto oriented while traditional street grid patterns accommodate cars but offer better solutions for pedestrians. Examples of each are available within the Bossier Planning Area that can provide insight for maximizing the potential of a bicycle and pedestrian transportation system.

In "Old Bossier", situated north of downtown and immediately east of the proposed Cane's Landing is a neighborhood that has a grid pattern of local streets. Supporting the concept of "community", Bossier

Elementary School serves as a central focus for the neighborhood. The street grid is dense and regular allowing pedestrians several choices of routes to the school. This and many other good examples may be found in Bossier, which offer lessons toward creating walkable neighborhoods.

Compared to traditional neighborhood designs, newer residential developments exhibit less desirable street patterns for walking and bicycling. While curvilinear street patterns provide interest and appeal to the homeowner, pedestrians have fewer choices of direct routes to destinations within or outside of their subdivision. Rather the pedestrian is left with the alternative of following streets that, at times, meander away from their destination.

Similar to automobile traffic, pedestrians rely on a series of connecting paths to make their trips. These paths may include sidewalks, off-street trails and walkways, linear parks and connections, crosswalks or any other form of linkage. Most importantly, the system of paths must be well connected and continuous. Climate, too, has an influence on the pedestrian system. In the Ark-La-Tex region, the climate is generally hot and humid in the spring and summer months and mild but often wet in the winter months. With limited exceptions, neither are conducive to walking for significant distances. Thus, the nature of the walk becomes a factor. In terms of transportation and thoroughfare design, the design of the unoccupied public right-of-way becomes quintessential.

Recommendations for street design considerations in a pedestrian-friendly community include:

- Cul-de-sac streets should be carefully managed to ensure they are not over utilized. Pedestrian linkages in the form of access easements and walkways connecting parts of the neighborhood together and providing access to schools and parks should be encouraged or required.
- Sidewalks and/or trails should be required in all new development, concurrent with street construction, and installed in areas where they are not currently available. Sidewalks should be provided on both sides of all arterials and collector roadways and on one or both sides of local residential streets. Trade-offs may be permitted in large lot developments to allow off-street trails in lieu of sidewalks thereby meeting the needs of walkers and bicyclers.
- As the pedestrian system matures, a hierarchy of paths (similar to street classification) should be developed. For instance, a series of feeder pedestrian paths may include only minimal amenities while collector (secondary) and "arterial" (primary) paths are fully developed.
- Mid-block connections in the form of access easements and walkways should be required to provide linkages between blocks and particularly to common facilities such as parks and open areas.
- Streets, sidewalks and other pedestrian connections and public gathering areas should be encouraged to create sheltered areas from heat and inclement weather.
- Landscaping should be encouraged along pedestrian paths both for aesthetic and environmental reasons. Trees provide shade and a sense of enclosure around pedestrian paths. Other vegetation, such as flowers and shrubs are also encouraged to further compliment the streetscape. When possible native plant material should be integrated, which is more tolerant of local conditions.

Planning for Bicycle Transportation

As the Bossier planning area continues to grow, designated bicycle routes, on-street bikeways, and off-street bike/hike/jog trails should be developed to link major attractions and destinations throughout the City and Parish, including neighborhoods and apartments, parks, schools, churches, libraries, museums, major employers, medical clinics, social service agencies, and shopping areas. In this way bicycle routes can provide an alternative mode of transportation while also serving the recreational needs of area residents. The Arthur Ray Teague Greenway offers an excellent example of a trail facility that provides connection from South Bossier toward downtown.

The State of Louisiana recognizes a bicycle as a vehicle, with all rights and responsibilities for roadway use that are provided to motor vehicles. As such, cyclists can legally ride on any street in the planning area, although controlled-access highways are off limits to both bicycles and pedestrians. Highway funds in Louisiana may be used for the construction and development of bicycle paths

where paths may be established wherever a highway, road, or street is being constructed, reconstructed or relocated. Additionally, bayou corridors, parks and recreation areas, and various rights-of-way and easements that traverse the planning area represent opportunities for future development of bicycle and pedestrian facilities. These opportunities can be incorporated as transportation enhancement projects such as multi-use trails, historic sites, and scenic beautification areas. The conceptual plan for trail and bikeway system development provided in *Chapter 6, Parks, Natural Resources and Open Space*, of this plan should serve as a long-range plan for the development and implementation of an interconnected network of bike and pedestrian trails.

Public Transportation

As a component of a multimodal transportation system, the ability of public transportation to function effectively is directly related to the degree to which the community is transit-supportive. Beyond political and popular support, a transit-supportive community is characterized by a well-developed system connecting nodes of activity, such as major employers, shopping areas, medical clinics, social service agencies and public institutions.

Evaluated as a stand alone system, highly effective public transit systems are generally intended to supplement other modes of transportation. Balance among the various modes must be achieved based upon ridership demands and suitability. From a demand perspective, bus transportation is ideal for many demographic groups, among them are the elderly, the young, and persons on a limited or "fixed" income. Though there are exceptions, by and large, systems are typically designed to facilitate these primary groups.

The elderly and young represent a captured market, most with few alternatives to travel beyond walking or rides with friends and family. The increasing ratio of elderly persons in Bossier is not likely to peak for another twenty years since the largest population is within their middle thirties and early forties, as displayed in Chapter 2 – Area Profile. Elderly persons, many of who are no longer able to drive, typically live in clusters such as retirement homes and communities. Young people, including teenagers, college students and young professionals, also represent strong ridership opportunities. Many young people are eager to gain employment and go to school, but do not have the resources with which to purchase a vehicle. Thus, public transit is a plausible solution. College students, many away from college without vehicles, tend to cluster in dormitory housing or apartments. Although most of the post-secondary education opportunities are located in Shreveport, many students could rely on dependable, efficient transit from areas within Bossier.

The Federal Transit Administration (FTA) notes the following trends as they relate to the impacts on the transportation system, particularly transit:

- As the population increases, the aggregate increase in the number of trips and miles can be expected to affect environmental quality and the demand for transportation infrastructure.
- Accessible transportation alternatives are necessary for maintaining older Americans' opportunities for independent living and their access to necessary goods and services. The growth in the older American population will also increase demand for elderly friendly fixed route vehicles, ADA paratransit and other transit services.
- Despite progress, transportation remains a major obstacle to employment and participation in the community for persons with disabilities.
- Because low density population areas provide little low or moderate income housing, unemployed and low-income people are concentrated in inner cities, without transit links to suburbs where new jobs are being created.
- A change in commuting patterns will place new and different demands on the transportation network.
- The planning and designing of surface transportation systems must take into account non-traditional work schedules and provide intermodal linkages for people who work at varying locations and those who must combine work trips with other stops, such as child or elder care facilities.
- Telecommuting can provide significant reduction in highway congestion, fewer accidents, reduced emission of pollutants and savings in energy and petroleum consumption.
- Transportation patterns are determined largely by

employment and location. Low income service workers and unemployed individuals, many of whom are minorities, tend to travel shorter distances and depend more on public transit.

- Improved efficiency, reduced pollution, and increased use of alternative fuels are vital to meeting environmental goals.

Public Transportation in the Bossier Planning Area

There are three organizations that provide public transportation in the MPC area. Local transit service is available through SporTran but serves only Bossier City and Shreveport. Bossier Parish Public Transit provides rural public transportation services and the Bossier Council on Aging provides transportation services exclusively for the elderly. Each fills a niche in the overall transportation system for the MPC Planning Area as described below.

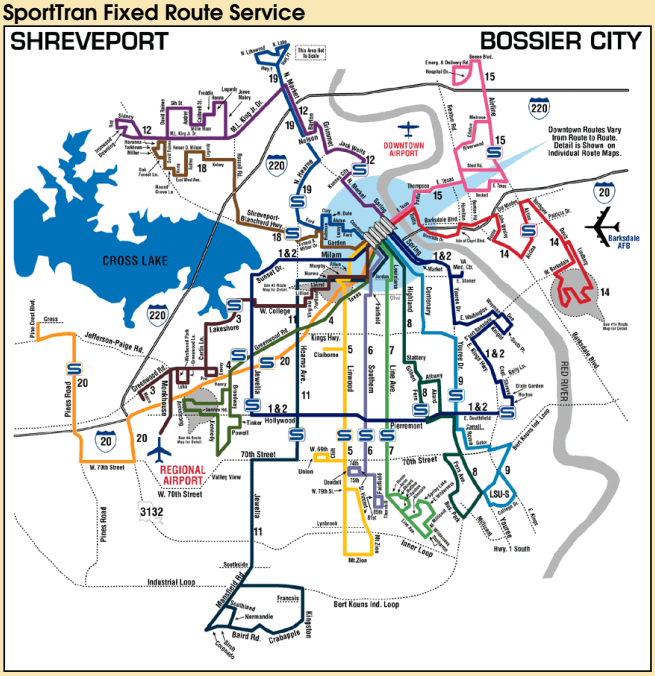
Shreveport Area Transportation System (SPORTRAN) – SporTran is the public transit system for Shreveport and Bossier City. It is operated by Shreveport Transit Management, Inc. under contract by the City of Shreveport. A fleet of 45 buses is used to facilitate sixteen scheduled fixed routes, all of which are ADA accessible. Persons unable to access the fixed route system because of disabilities are eligible to use a demand-response paratransit service called the Lift Line. When qualified, a client must schedule service 24 hours in advance.

Schedules vary for both fixed route and paratransit services. Fixed route service is available from 4:55 a.m. to 8:00 p.m. on weekdays, from 5:30 a.m. to 7:15 p.m. Saturdays and from 7:55 a.m. to 5:00 p.m. Sundays. The paratransit vans are available from 6:30 a.m. to 7:00 p.m. weekdays, from 7:00 a.m. to 6:00 p.m. on Saturday and from 8:00 a.m. – 4:00 p.m. on Sunday. Discounted fares are available to students, disabled and the elderly.

Displayed in **Figure 7.1 – SporTran Fixed Route Service**, are the 16 current routes within Bossier City and Shreveport, which reach the vast majority of the area's shopping, educational and medical facilities. The route system of SporTran offers the ability for riders to get to most major destinations throughout the metropolitan area by transferring between routes through the Downtown Terminal.

Displayed in **Figures 7.2 and 7.3** are the two fixed routes within Bossier City, including Route 14 – Barksdale and Route 15 – North Bossier. These two routes provide good coverage of the area within Bossier City with stops at major destinations such as the Bossier Municipal Complex, Pierre Bossier Mall, Heart O'Bossier Shopping Center, Bossier Parish Community College, Barksdale A.F.B., the State Employment Office, and the Bossier Parish Health Unit.

Figure 7.1
SportTran Fixed Route Service



Source: SportTran, The Public Transit System for Shreveport and Bossier City, LA

Bossier Parish Public Transit - The Bossier Office of Community Service operates a comprehensive transportation service system for all of Bossier Parish through funds received from the Louisiana Department of Transportation and Development. Services are provided to citizens in the rural portions of the Parish by the agency's Section 18 Rural Transportation Program. Clients within Bossier Parish may utilize the agency's Transportation Program with 48 hours notice for pick-up. Drivers pick participants up at their curb and transport them to appropriate services as their needs dictate. Staff of the Transportation Program have provided 17,470 units of service to its clients during this fiscal year.

The system is one of 31 rural public transit providers in Louisiana. Transportation services are provided through two lift-equipped vans and are available from 8:00 a.m. to

Figure 7.2
SportTran Route 14 – Barksdale

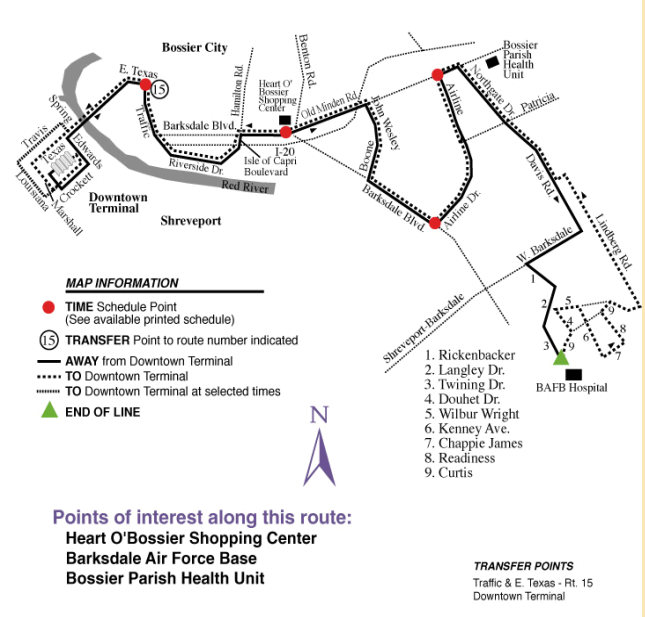
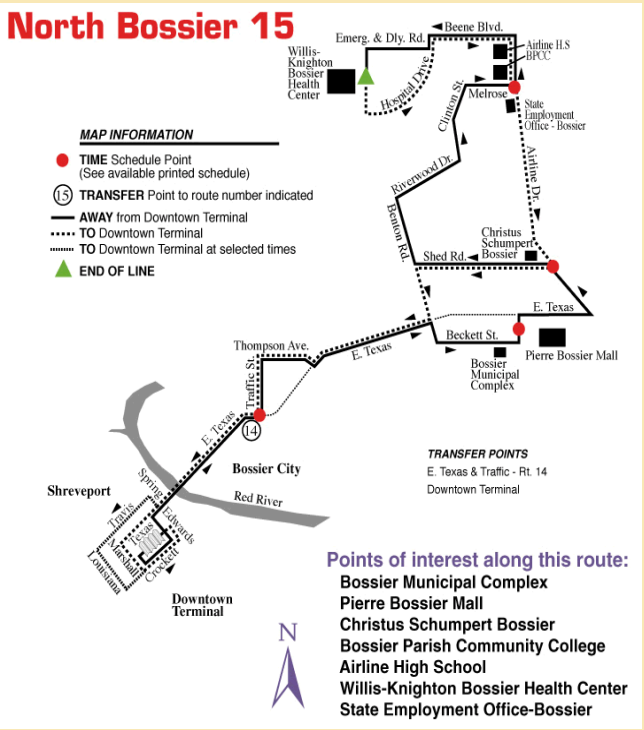


Figure 7.3
SporTran Route 15 – North Bossier



Source: SportTran, The Public Transit System for Shreveport and Bossier City, LA

4:30 p.m. on Monday through Friday. The service is available to all Parish residents to provide accessible public transportation for all income levels, ages and populations. Fares are nominal. In 1997, the latest year for which data are available, ridership exceeded 4,200 persons. The total operating cost for the system was approximately $121,000. Fares generated only offset costs and funding is primarily derived from the Louisiana Public Transit Section under the Non-urbanized Area Formula Program, or Section 5311. These funds may be used to finance up to 80 percent of capital costs and up to 50 percent of operational deficits.

Bossier Council on Aging (BCOA) - This agency offers demand-response public transportation services for the elderly throughout Bossier Parish. Transportation services are available from 7:30 a.m. to 4:00 p.m. on Monday through Friday. The Council operates two vans, one of which is equipped with a handicap accessible lift. Fares are accepted by donation.

Other transit service providers in the Bossier MPC Planning Area include intra- and interstate bus service and local for hire vehicles. Greyhound Bus Lines offers longer-distance bus service between Bossier City and other destinations. Action Taxi also provides private taxi service in the area.

The Louisiana Department of Transportation and Development (LA DOTD) manages and allocates federal transit funds through its Public Transportation section, whose mission is to enhance the access of people in non-urbanized areas to health care, shopping, education, employment, public services and recreation.

Railroads and Motor Freight

The railroad has played an important role in the history and development of Bossier and, as the city progresses, that role continues. Today, trains frequently pass through Bossier City and Bossier Parish carrying goods and services to destinations within the area such as the Port of Shreveport-Bossier and beyond. However, unlike decades past, rail lines must now transect major roadways that provide access to various destinations throughout Bossier. The result impedes traffic movement and causes delay, which is necessary to allow the railroad service to adequately function. For many, as expressed by citizens through the public involvement process, the stops are too

frequent and the noise generated by passing trains is highly undesirable.

Despite some of the negative impacts of rail service, it is essential to the success of a truly multimodal transportation system. Rail provides a land-based alternative to truck traffic that can prove to be cheaper. As a result, it remains a useful and cost effective method of transportation for many entities, particularly industrial activity, agriculture and retailers of large items such as cars or lumber.

Passenger rail service is not directly available in Bossier City, but an unmanned terminal is provided. AMTRAK provides a bus connector service to the nearest terminal, in Shreveport.

Union Pacific Railroad (UP) and Kansas City Southern Railroad (KCS) operate rail service in Bossier City and Bossier Parish. Union Pacific operates a rail line that enters Bossier City from Caddo Parish south of Interstate 20 and follows Benton Road north through the Parish. KCS operates lines that travel generally east and west. Two rail lines enter Bossier City jointly north of Interstate 20 and split beyond Traffic Street. One section continues east, crosses Interstate 20, and runs adjacent to Barksdale Air Force Base while another travels southeast along Barksdale Boulevard. A third major rail line operated by KCS splits from the UP rail line north of Texas Street before veering northeast in a straight path past the Bossier Industrial Park before turning east toward Princeton.

The KCS rail lines connect in northwest Shreveport at a major intermodal facility containing 44 tracks, which is a key feature of the network that is referred to as the *NAFTA Railway*. Similar to the proposed I-69 corridor, it connects Mexico, 12 states and Canada. The KCS intermodal facility in Shreveport is also a transfer point for the Union Pacific Railroad. The UP intermodal facility is located in New Orleans.

Street Grade Crossings

Street grade crossings are an important issue in the MPC Planning Area because of the number of intersections between area streets and railroads. Grade crossings can interfere with the safe and efficient circulation of railroads, motor vehicles, bicycles and pedestrians. At-grade intersections between railroad lines and area roadways also impede emergency vehicle access. Currently all rail crossings in Bossier City are at grade except along the Interstate 20 corridor.

In 2001, a study was conducted to evaluate railroad impacts on vehicular traffic in Bossier City. The resulting report, *Railroad Grade Crossing Study*, analyzed the selected railroad crossings and ranked their need for improvement by severity of congestion and safety issues. While the scope of the study was limited to designated grade crossings within Bossier City, the results of the study, as indicated by **Figure 7.4, Rail Crossing Solutions**, represent the significant conflict that exists throughout the MPC Planning Area between vehicle traffic and rail service.

A summary of the existing conditions noted the following:

- Typical train speeds at the crossings range from 15 to 35 mph.
- The crossings at Airline Drive (South of Interstate 20), Benton Road, and Old Minden Road experience approximately 26 trains per day, while the remaining crossings have 10 trains or less per day.
- The average train lengths along the KCS rail line are approximately 6,000 feet, and about 7,000 feet on the UP line.
- The average daily traffic (ADT) totals at the ten crossings range from 8,200 vehicles per day (vpd) at the Hamilton/Shed Road crossing to 37,000 vpd at the Airline Drive (S of IH-20) crossing.
- Results from the study show that the various grade crossings throughout Bossier City and Bossier Parish can create significant delays, particularly during peak periods of the day. More, the layout of rail lines and the street system ensures that alternative routes are not available to circumvent rail traffic. Recommended improvements include construction of grade separations and widening of roads to reduce the length and duration of congested traffic.

  Important additional considerations in coordinating railroads with thoroughfare development include:
- Grade crossing safety and traffic control devices including gate arms, flashing lights, signage and pavement markings should be installed and maintained at railroad-roadway crossings;

- Train speed limits should be observed and enforced for train operations through urbanized portions of the Planning Area;
- Warning whistles of the trains may be restricted by the municipality within specified limits and during specified times, which the City may choose to impose;
- State regulations should be observed concerning maximum street grade crossing times.

The Potential for Relocation

Comments gathered through focus group interviews and elsewhere allude to possibilities to relocate rail service within Bossier City and Bossier Parish to another, more "appropriate" location. Specifically, comments indicate a desire to relocate a portion of the railroad system to align with proposed Interstate 69 as it bypasses Bossier City.

Benefits to relocation of the rail line include the alleviation of grade crossings and increased safety. However, additional benefits can include use of the abandoned rail line for a light rail transit system, use of the right of way for a trail system connects several areas of Bossier City and Bossier Parish, decreased noise, increased property value for areas sensitive to the impacts of rail, potential economic opportunity for areas adjacent to the proposed location of the rail line, and overall increased automobile traffic efficiency. Numerous neighborhoods in Bossier are adjacent to a rail line and would likely see relocation as a benefit.

On the other hand, the relocation of rail also poses potential detriments to Bossier. Relocation of a rail system may eliminate some problems, but it may also only transfer other problems to locations surrounding the relocated rail system. For example, noise and aesthetic value of a rail system does not change with relocation. While an area may see industrial or commercial benefit from proximity to rail, it also will likely see suppressed demand for residential development or commercial activity sensitive to the presence of rail. Existing businesses that utilize rail may no longer have access to the system and be forced to either compensate for the added cost of business or simply close.

Most prohibitive of all factors related to relocation is cost. Movement of a rail line is very expensive. While many communities have considered the benefits of relocation, very few have actually moved into implementation.

One community that has successfully relocated a rail line and serves as the national "case study" is Lafayette, Indiana. Like Bossier and Shreveport, Lafayette is located along a river and is directly adjacent to the City of West Lafayette. Over 30 years ago, the City of Lafayette embarked upon a massive railroad relocation project that would ultimately cost $182.5 million. The project, which was funded as an FHWA Demonstration Project, relocated the rail line that ran through downtown to an area along the river and outside of the major areas of traffic. Over a series of five phases, the project improved safety and traffic efficiency by eliminating 41 at-grade crossings. Further, the construction process that begun in 1986, was used as a means of performing additional physical, aesthetic and functional improvements.

Completed in 2001, the project is heralded as a major success that has improved traffic flow and area quality of life. Area neighborhoods within proximity to downtown now enjoy the quiet of other neighborhoods. The railroad company indicates satisfaction with the new alignment. At the same time, Lafayette has already begun to notice problems. The new alignment along the river allows for development of an extended park site at the water's edge, but little possibility for full riverfront development.

Reno, Nevada is preparing to begin construction on a project to eliminate grade crossing issues by simply dropping the rail line below grade. The Alameda Corridor in Long Beach and Los Angeles, California, is underway and will combine rail lines and provide improved service to both the Port of Los Angeles and the Port of Long Beach. Both projects are expected to surpass the costs of the project in Lafayette, Indiana.

Port Facilities

The Port of Shreveport-Bossier plays a significant role in Bossier's future economy, growth and transportation network. As part of a significant port network, the success of the port is also significant to the State of Louisiana. Louisiana's strategic location at the mouth of the Mississippi River and the Gulf of Mexico make the port and maritime industry one of the state's most important economic generators.

For Louisiana, the Port of Shreveport-Bossier, as part of the larger port system, serves as a gateway to the state and

the entire mid-section of the United States as evidenced in **Figure 7. 5 - Location of the Port of Shreveport-Bossier in Relationship to Other U.S. Cities**. While it serves as a means for cargo to come into and out of the country, it also acts as a major economic catalyst for the state economy. The Port of Shreveport-Bossier is a natural magnet for attracting warehousing and manufacturing firms that use the Red River to import raw materials or export finished products. It also services the vessels that call on the stop to deposit or pick up goods and materials.

In 1994, the Louisiana ports and the maritime industry produced $7.6 billion of primary spending and $14.3 billion of secondary spending for a total of $21.9 billion - 21 percent of total dollar value of the state's goods and services. The ports and related activities produced $3.8 billion of income for Louisiana residents, representing 4.7 percent of the entire personal income in the state. In total, the economic activities of port-related firms throughout Louisiana supported 178,582 permanent jobs - approximately one out of every 10 jobs statewide. In addition, the economic activities of those port-related firms created $209.0 million in state tax revenue and $101.1 million in local tax revenue.

The 2,000 acre Port of Shreveport-Bossier is a relatively new resource that takes advantage of a historic and reliable form of transportation, the Red River. Both Shreveport and Bossier were founded upon river navigation. However, by the turn of the century, transportation by rail had replaced shipment of goods and services by water.

History of the Port dates to legislation originating in 1962 that created the Caddo-Bossier Parishes Port Commission. By 1976, Congress funded the Red River Waterway Project that initiated construction of the lock and dam system necessary to successfully support barge traffic. The initial infrastructure for the Port was constructed in 1992 and the first leases were signed in 1994.

Today, the Port of Shreveport-Bossier is a growing and robust component to the local economy. In 2001, approximately 460,000 tons of goods and materials were transported through the Port. In 2002, tonnage is expected to exceed 500,000 and will be comprised of goods including liquid petroleum products, dry bulk fertilizers and other dry bulk products. After only 37-months of operation, the Port reached a historic milestone - processing one million tons of cargo. Despite changes in the economy, the Port continues to meet or beat tonnage and employment expectations.

The U.S. Department of Transportation Maritime Administration notes that barge transport is energy efficient, can handle large cargo capacities, is extremely safe, reduces roadway congestion, produces little pollution, and provides little impact upon the surrounding area.

Goods and materials access the Port by barges utilizing the Mississippi River/Gulf of Mexico and the Gulf Intracoastal Waterway (GIWW). Products and materials delivered through the Port are either utilized by businesses on location or shipped to other destinations. Of items shipped out of the Port, approximately 95 percent are shipped by truck via LA 1. The remaining 5 percent are shipped to various resources by rail. Union Pacific owns the main rail line that ties to the Port, although the Port also operates an intraplant short line service that includes on-dock rail, an internal rail switch yard and two rail cars.

Figure 7.5
Location of the Port of Shreveport-Bossier in Relationship to Other U.S. Cities

The Port of Shreveport-Bossier offers access to a number of destinations by water, rail, road and air.

Source: Port of Shreveport-Bossier

The Port is accessed by a shallow draft navigation channel nine feet deep and 200 feet wide that is regulated by five lock and dam structures. All are maintained by the U.S. Army Corps of Engineers. The locks allow six barge tows - two wide, three deep.

General cargo terminal facilities at the Port include a 600' general cargo wharf complimented by 30- and 50-ton overhead bridge cranes, 30,000 square foot dockside warehouse and bulk and liquid bulk storage facilities. Industries located at the Port include a sulfuric

acid manufacturer, a fertilizer warehouse, a liquid product blender and bottler, two liquid bulk tank farms, and a yacht manufacturer.

Continuing to develop facilities to accommodate growth has been a priority. To provide quality service to its customers, the Port is embarking on development of an ambitious, environmentally sensitive, $500 million power plant that will utilize local discharge water instead of groundwater. Florida Power and Light Energy will operate the plant.

The Port of Shreveport-Bossier continues to grow and is well positioned to leverage further maturation of multimodal transportation systems in the region.

Source: Port of Shreveport-Bossier

Incentives for port development are extensive, including location within a Foreign Trade Zone, Enterprise Zone and a U.S. Customs Port of Entry, as well as access to port bond financing programs and industrial property tax exemption.

Aviation

Air service is available in quantity throughout Bossier and neighboring Shreveport. Two civilian airports are located in Shreveport and serve the Ark-La-Tex region that includes the MPC Planning Area. Barksdale AFB provides military air service for the base. Despite the fact that both civilian airports are located in Shreveport, each contributes to the Bossier's transportation system by facilitating the movement of people and goods.

Like the Port of Shreveport-Bossier, the local airports have the ability to provide a significant economic impact and benefit to the region. However, while the goods and materials that flow through the Port are generally related to manufacturing, the materials and goods that flow through the airport can range from industrial goods to commercial supplies and, of course, people.

Shreveport Regional Airport

The Shreveport Regional Airport is the primary commercial airport for the Shreveport-Bossier area. It was opened in 1952 to fulfill the region's demand for passenger airline service. The older Downtown Airport lacked room for expansion and was too close to Barksdale AFB.

Since its inception, the Shreveport Regional Airport has continued to grow and prosper. A new terminal was constructed in 1971 and a $30 million expansion/renovation project was completed in the Fall of 1999. Boeing employs more than 150 people at a military aircraft maintenance facility in the adjacent industrial park.

Several air cargo companies utilize Shreveport Regional Airport for delivery and reception of goods and materials. Both runways at the airport are designed to handle the weight of the largest cargo carriers. Among others, United Parcel Service, Federal Express and Airborne Express operate from the Shreveport Regional Airport.

The facility, with its strong passenger demand and tenant activity is also well positioned as a multimodal facility. The airport is designated as a small hub airport served by seven airlines and a variety of connections, including:

- American Connection (formerly TWA) to St Louis. Missouri
- American Eagle Airlines to Dallas/Ft. Worth (DFW), Texas
- Atlantic Southeast Airlines (ASA) to DFW
- Continental Express Airlines to Houston, Texas
- Delta Air Lines to Atlanta, Ga.; Dallas Ft. Worth; Monroe, La.; and Jackson, Miss.
- Northwest Airlink to Memphis, Tennessee
- US Airways Express to New Orleans, Louisiana

Carriers provide over 70 flights in and out of Shreveport Regional Airport every day with the ability to directly provide service to approximately 250 destinations.

Shreveport Downtown Airport

Since 1931 and a Delta Air Lines commercial flight to Monroe, Louisiana and Jackson, Mississippi, the Shreveport Downtown Airport has provided air service to the Shreveport-Bossier area. Located along a meandering point of the Red River on Airport Drive north of the downtown area, the Shreveport Downtown Airport continued commercial air carrier service for the region until 1952 when the Shreveport Regional Airport was opened.

> *"The (Downtown) airport initially consisted of an open field with an airsock located roughly in the middle. This allowed aircraft to depart in virtually any direction depending upon the direction of the wind."*
>
> *Shreveport Downtown Airport History*
> *City of Shreveport Website*

Today, the Shreveport Downtown Airport operates as a general aviation facility. To ensure the continued success of the airport, the Shreveport Airport Authority has made numerous improvements, including recent improvements to the runway and tower. Two training facilities anchor the complex, the Southern University Airframe and Power Plant Mechanics School as well as the Louisiana Tech pilot training school.

Trip Generators

All land uses generate trips. Residents of the MPC Planning Area travel daily to work, home and a myriad of other places along the way. The number of trips that each use generates depends upon a number of factors such as the type of use, size and location. The role of the transportation system is to adequately accommodate the number of trips generated by the various uses.

Specific uses in the MPC Planning Area create very large numbers of trips. Barksdale AFB, for example, is a major employer for both the Bossier area and the greater region. While a number of persons travel to and from the air base throughout the day, the majority of traffic generated by the base occurs at those times that people are traveling at the beginning and ending of the work day. CenturyTel Center, on the other hand, is also an employer. However, the majority of traffic generated by the arena occurs during major events.

These and other major trip generators can have a significant impact on the transportation system, particularly regarding traffic volumes and flow patterns. Thus, the various major trip generators were identified and considered in development of the Transportation Element and companion Thoroughfare Plan. Specific trip generators considered include:

- Barksdale Air Force Base (outlets from West Gate Drive to Barksdale Boulevard, as well as North Gate Road to Old Minden Road)
- Pierre Bossier Mall (outlets along Airline Drive and Texas Street)
- Bossier City Municipal Complex (outlets from Beckett Street to Benton Road or Texas Street)
- Heart of Bossier Shopping Center (outlets along Benton Road and Barksdale Boulevard)
- Gaming District (outlets near the riverfront, Traffic Street, Old Minden Road, and Barksdale Boulevard)
- Airline High School (outlets along Airline Drive)
- Medical area (various outlets near Interstate 220 and Airline Drive)
- CenturyTel Center (outlets along Woodmont Boulevard onto Jimmy Davis Highway)
- Downtown Shreveport (immediate access points at Interstate 20 and Texas Street, with secondary access via West Gate Drive)
- Shreve City Shopping Center (outlets along West Gate Drive/Shreveport Barksdale Highway)

Roadway Cross Sections

Roadway classifications reflect the functions that roadways serve as part of the street network. The cross section of a roadway is related to traffic volume, design capacity, and Level of Service. The Bossier City-Parish Metropolitan Planning Commission currently classifies the local street system as Expressways (or Parkways), Major Arterial Streets, Collectors, Residential Collector Streets, Residential Minor Streets, and Marginal Access Streets. Cross section requirements for each class of road are provided in the Subdivision Regulations for the Bossier City-Parish Metropolitan Planning Commission. A summary of requirements is provided in **Table 7.2 - Existing Roadway Cross Sections**. Each cross section identifies minimum dimensional criteria for right-of-way and pavement width.

No specific width is provided for sidewalks, however, it is noted that sidewalks are required in Bossier Parish.

Table 7.2
Existing Roadway Cross Sections

Classification	Right-Of-Way*		Pavement Width*
	Minimum	Preferred	
Expressway (or Parkway)	200	300	**
Major Arterial Street	80	100	48
Collector	70	--	44
Residential Collector Street	60	--	36
Residential Principal Street	60	--	25
Industrial/Commercial Street Without Curb and Gutt	60	--	--
Residential Minor Street (City only)	50	--	26
Residential Minor Street (MPC outside City only)	38	--	18
Marginal Access Street	40	--	20
Alley	20	--	20
Crosswalkway	10	--	4

** All distances in feet*
*** Pavement width determined by LA DOTD*

Source: Subdivision Regulations, Bossier City-Parish Metropolitan Planning Commission

The single set of standards for the entire MPC Planning Area has been a focus of discussion throughout the comprehensive planning process. Standards indicated by the Subdivision Regulations are designed to accommodate a modern, suburban-style development pattern. This can potentially be problematic in a jurisdiction in which the character of the community may be urban in some places, suburban in others, and along the outer areas. Several insist that standards in the urban areas should reflect the urban area, with similar consideration in suburban and urban areas. For example, sidewalks are not indicative of rural development, but are certainly appropriate to the urban village envisioned in *Chapter 5, Land Use* or suburban subdivision design. In the case of the rural subdivision, an inner trail system that builds upon the natural environment may be more appropriate.

The Master Thoroughfare Plan

Thoroughfare system planning represents the process that is proposed for the Bossier Comprehensive Land Use and Development Plan to assure development of the most efficient and appropriate street system to meet existing and future travel needs of the MPC Planning Area. The purpose is to ensure orderly and progressive development of the streets to serve mobility and access needs of the public. Thoroughfare planning is intrinsically interrelated with other components of the plan including land use, housing, the environment, and public utilities.

Constraints to Thoroughfare Development

As discussed at length in *Chapter 5, Land Use*, the MPC Planning Area has several natural and created barriers to standard development practices. Some of these constraints hinder development, such as floodplains and wetlands. Others, such as the massive area of Barksdale Air Force Base, add complexity to traditional transportation development. Constraints include:

- **Railroads.** The existing railroads and train traffic are a major constraint for movement of automobile traffic. At-grade intersections of the railroad lines with area roadways are a cause of traffic delays and traffic safety concerns. Relocating existing railroad lines to an alignment outside the densely developed area is a potential solution, yet an extremely costly proposition. Other alternatives include constructing grade separated roadways over major railroad-roadway intersections, and traffic safety improvements at existing crossings.
- **Barksdale Air Force Base.** The air base impacts the transportation system in a number of ways, but it poses constraints primarily as a result of its bulk, location and flight path. The AICUZ that protects residents from negative impacts of intense sound and potential risk to safety also keeps dense development from occurring in a significant portion of the MPC Planning Area. The transportation system has historically adjusted to this constraint and will continue to do so in order to support continued coexistence with the air base. The size and location of Barksdale Air Force Base make interconnections along north and south routes difficult. Interstate 220, for example, could form a complete loop around Bossier and Shreveport but is blocked by the air base.
- **Red River, floodplains and wetlands.** Several constraints to thoroughfare system development involve water in various forms, be it the Red River, its tributaries or the expansive floodplains and wetland areas. The Red River creates a natural boundary for

development activity in the MPC Planning Area while tributaries, floodplains and wetlands represent sensitive areas where development must be low density, low intensity and designed in concert with the natural environment.

- Existing development. Perhaps the most significant influences on thoroughfare improvement are existing residential neighborhoods and other developed areas that present constraints when a thoroughfare might impact the area. While existing development does not entirely prohibit the development of a desirable transportation system, its existence, like that of other constraints, may affect the feasibility, location, and construction cost of transportation improvements.

Master Thoroughfare Plan Map

The existing and proposed thoroughfare system of principal and minor arterials and collector streets is displayed in **Figure 7.6 - Master Thoroughfare Plan Map**. The Master Thoroughfare Plan Map shows approximate alignments for planned thoroughfares that will be considered in platting of subdivisions, right-of-way dedication, and construction of major roadways within the MPC Planning Area.

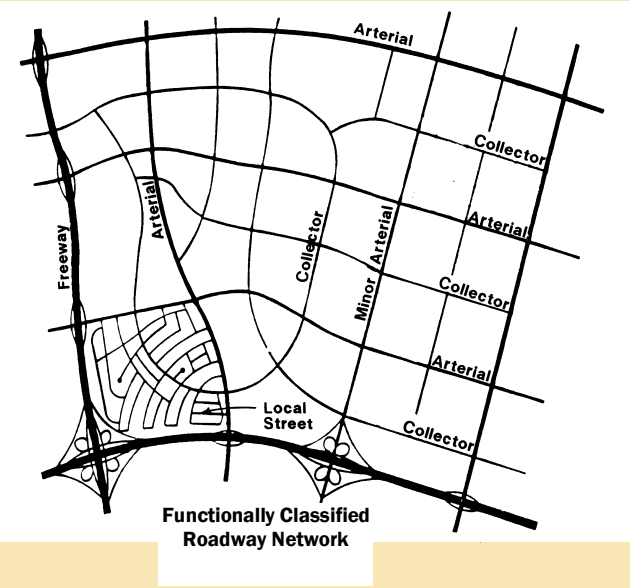
Some elements of the thoroughfare system will require new or wider right-of-way and may ultimately be developed as two-lane or multi-lane roadways with various cross sections. Other streets identified as collectors on the Plan will not necessarily ever be widened due to physical constraints and right-of-way limitations. Instead, the collector designation signifies their traffic-handling role in the overall street system and the importance of maintaining such streets in superior condition to maximize their traffic capacity since they most likely cannot be improved to an optimal width and cross section. The Plan does not show future local streets because these streets function principally to provide access and their future alignments may vary depending upon development plans. Local street alignment should be determined by the MPC, in conjunction with Bossier City, Bossier Parish and landowners, as part of the subdivision development process. Likewise, secondary collectors (referred to as Residential Collector Streets in the existing Subdivision Regulations) are required with new development but are not shown in all places on the Thoroughfare Plan since their alignments will depend on the surrounding street system and the particular development concept. Secondary collectors should be situated on a case-by-case basis to connect major collectors (and sometimes arterials) with other major collectors and local streets.

The Master Thoroughfare Plan will affect the growth and development of the MPC Planning Area since it guides the preservation of right-of-way needed for future thoroughfare improvements. As a result, the Plan has significant influence on the pattern of movement and the desirability of areas as locations for development and land use. While other elements of the Plan look at foreseeable changes and needs over a 20-year period, thoroughfare planning requires an even longer-range perspective extending into the very long-term future. Future changes in transportation technology, cost structure, service demand and long-term shifts in urban growth and development patterns require a far-sighted and visionary approach to thoroughfare planning decisions.

Functional Classification of Roadways

The roads and streets of the MPC Planning Area are grouped into functional classes according to the type of service they are intended to provide in terms of traffic

Figure 7.7
Example of Functional Classifications



Various classifications of roads in a network are based upon intended function. However, the function and classification of a road may change over time as development patterns in the MPC Planning Area change.

Source: adaptation by Wilbur Smith Associates

movement and access. Characteristics of each functional class of roadway differ as needed to meet the corridor's intended purpose.

The functional classification of area roadways, an example of which is shown in **Figure 7.7, Example of Functional Classifications**, includes Principal Arterials, Minor Arterials and Collectors. Minor Arterials are a new addition to current standards. On a neighborhood scale, streets are further classified as Residential Local Streets.

These classifications vary from the current classification system, which is more extensive at a neighborhood scale. In addition to standard street classifications, the Subdivision Regulations have classifications, including separate right-of-way and pavement width requirements, for Residential Collector Streets, Residential Principal Streets, Residential Minor Streets, Industrial or Commercial Streets without curb and gutter, Marginal Access Streets, and Crosswalkways. The Master Thoroughfare Plan does not differentiate between local streets by assigning class. Instead, the Plan proposes that local street width and other characteristics be changed according to need, including such characteristics as the desire for on-street parking, presence of bike lanes, choice of trails or sidewalks, anticipated traffic volume, and location within an urban, suburban or rural setting.

Classifications for alleys and marginal access streets are a function of service and property access and, therefore, are not included in the recommended classification system of the Master Thoroughfare Plan. This is not to indicate that the Master Thoroughfare Plan ignores the possibility of alleys in a development. In fact, the Plan recognizes the valuable contribution of alleys to the urban fabric and establishment of community character and proposes that they be used as appropriate.

In addition to changes to the types of classifications, the Plan also proposes alternatives to the current right-of-way and pavement width requirements for collector and local roads (and possibly existing neighborhoods through striping or actual reconstruction). These alternative modifications to the right-of-way and pavement widths should be offered to developers in return for added or preserved green space within a development. Currently, the standards for Collector streets require a 44 foot cross section within a 70 foot right-of-way. As an alternative, a developer willing to set aside space for additional green space or enhanced pedestrian pathways, may request that pavement width be reduced to 36 foot and right-of-way reduced to 60 foot, which will offer the following benefits:

- Reduced development costs by decreasing the amount of pavement and right-of-way for collector streets;
- Increased green space adding an additional 8 feet total and 4 feet on each side of the roadway, or an increase in preserved open space;
- Increased pedestrian safety by increasing the separation between the edge of the pavement and the sidewalk;
- Improved ability to locate the street within the right-of-way as a means to preserve trees and other natural features; and,
- Reduced travel speed resulting from the perceived safety of driving on a narrower street.

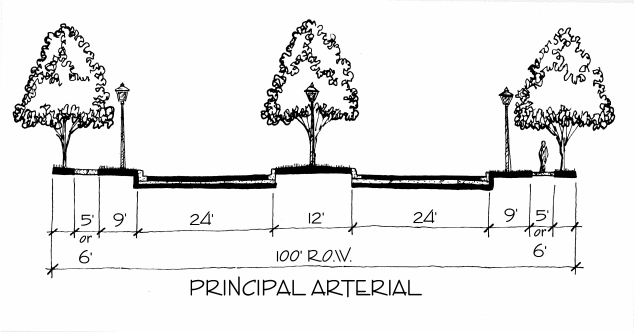
A 36 foot wide street cross section provides three, 12 foot travel lanes, which is sufficient to serve the traffic carrying capacity of a collector roadway, particularly in instances where walking is encouraged.

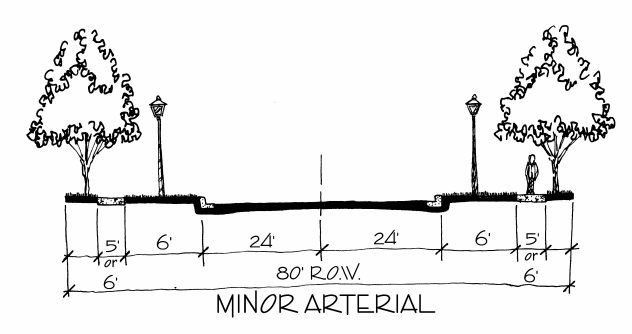
Another option possible for developers in rural communities is consideration of collector roads without sidewalks or curb and gutter. This permits the development to maintain the look and feel of a rural area, but similarly may not provide the drainage system offered with roads that utilize a curb and gutter system.

In this style of development, significant green space and an interior trail system would be necessary to compensate for the loss of sidewalks. Pavement width would remain at the alternative 36 foot requirement, however, right-of-way must account for the increased space required for open or covered ditches.

Alternatives are likewise proposed for the local street system. A standard 50 foot right-of-way includes 26 foot of pavement width to account for informal parking along the street. However, as need and volume change, right-of-way may be reduced to as little as 38 foot and pavement width to 18 foot. The result, particularly along local streets that are designed to only serve immediate residents, are narrow streets that provide the charm and

Figure 7.8
Principal and Minor Arterial Cross Sections





Source: Wilbur Smith Associates

safety of older, historic neighborhoods. Once again, however, the developer must be prepared to provide an incentive to the MPC in return for reduced right-of-way and pavement width, such as added green space or affordable housing.

Like the collector system, local streets may be adapted to a rural setting to include an open or closed ditch system and trails as opposed to curbs, gutters and sidewalks. As with collectors, the advantage continues to be preservation of rural character while the disadvantages include a reduced standard for rural development and potentially less effective stormwater management.

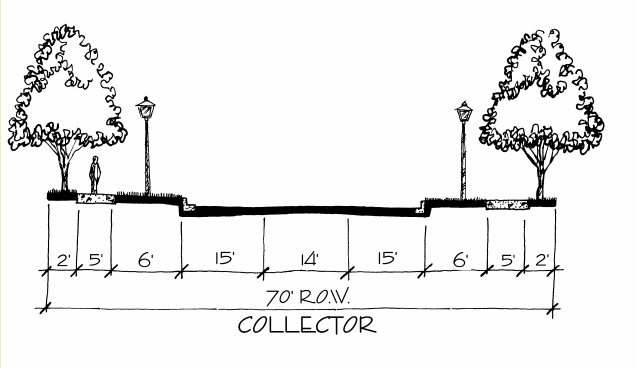
The right-of-way and pavement width for primary arterials is recommended to remain the same. A recommended new minor arterial classification provides a connection between an interstate or other arterial roadway and the local collector system.

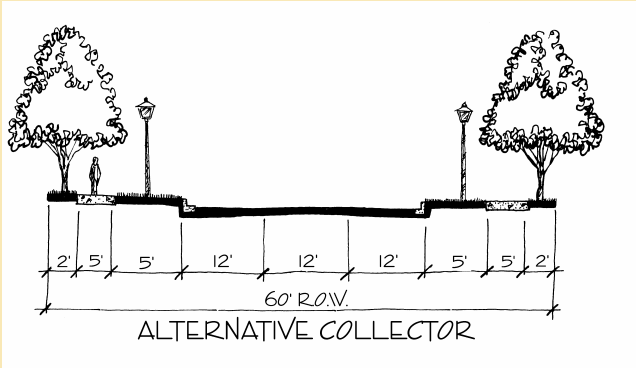
Principal Arterial. A divided thoroughfare with a recommended 100 foot of total street right-of-way with a pavement section of 48 feet and a 12 foot raised median. Sidewalks are located on both sides of the street and are located nine feet from the back of the curb. The 12 foot esplanade is sufficient in width to provide for decorative street lighting, landscaping, "green-space" and public open space. In addition, a median provides for access control and improved traffic safety. Examples of principal arterials are proposed to include Airline Drive, Benton Road, Barksdale Boulevard, Curtis Sligo Road and the extension of Winnfield Road across the northern section of the MPC Planning Area.

Minor Arterial. An undivided thoroughfare is recommended to include 80 foot of total street right-of-way with a 48 foot pavement section. Sidewalks are located on both sides of the street and are located six feet from the back of the curb. The 22 foot right-of-way, excluding the width of pavement, provides space for decorative street lighting, landscaping, "green-space" and public open space. Examples are proposed to include an expanded Arthur Teague Parkway, Traffic Street/Shed Road to the intersection with Swan Lake Drive, and a new road south of IH-20 and north of Barksdale AFB.

Collector. The collector roadway classification is recommended to remain with a total street right-of-way of

Figure 7.9
Collector Cross Sections

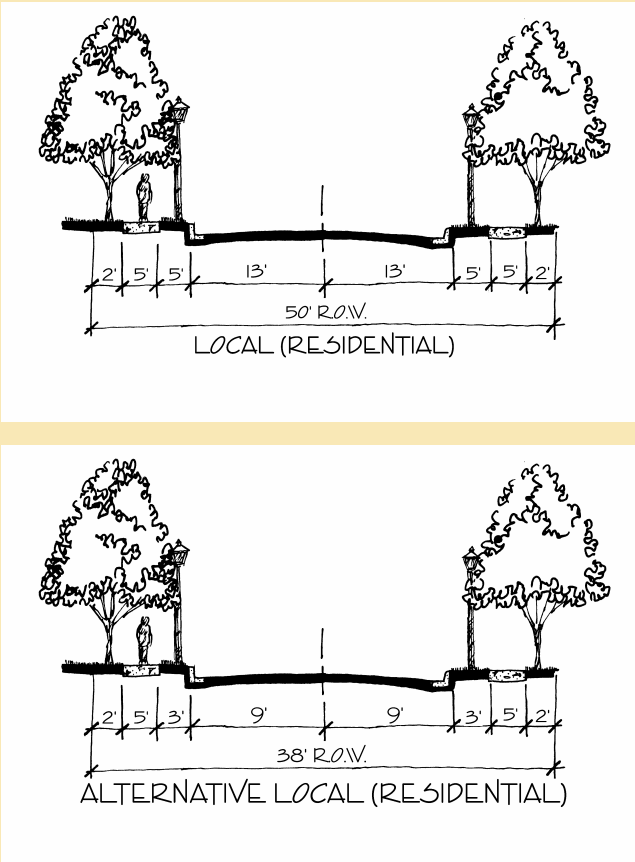




Source: Wilbur Smith Associates

70 foot and continue to require 44 feet of pavement width, with an option to reduce pavement width to 36 foot and right-of-way to 60 foot. In instances where the reduced pavement width option is utilized, sidewalks are located on both sides of the street and five feet from the back of curb. The 36 feet of pavement width is adequate to collect and distribute traffic to the arterial roadway network, particularly when walking is encouraged. The 24 feet of right-of-way, excluding the width of pavement, provides ample space for neighborhood-scale street lighting, street trees, "green-space" and public open space. A rural character option would permit a developer to also remove curbs, gutter and sidewalks in return for significantly increased green space and an interior network of trails. The street width may remain 36 foot, however, right-of-way will depend upon the use of open or closed ditches. Examples of collector roadways include Old Brownlee-Linton Road, North Gate Road, Woodmont Boulevard, Douglas Drive, and Dogwood Trail.

Figure 7.10
Local Street Cross Sections



Source: Wilbur Smith Associates

Local Residential. A local residential street is proposed to replace the categories of Residential Collector Street, Residential Principal Street and Residential Minor Street with a single category that has the flexibility to adapt as street requirements change. Original right-of-way ranging between 60 and 50 foot is recommended to become a standard 50 foot right-of-way with a pavement width of 26 foot. While the standard is proposed to be one foot greater than that currently in place for Residential Principal and Minor Streets, it is also proposed to accommodate on-street parking. Five foot sidewalks are required along both sides of the street along Local Residential Streets. The 24 foot right-of-way, excluding the width of pavement, is sufficient yet constrained for neighborhood-scale street lighting, sidewalks, landscaping, and "green-space".

As an option and in return for added green space or another predetermined need of the MPC Planning Area, such as affordable housing, the developer may request reduction of both right-of-way and street width. Depending upon circumstances, right-of-way may be reduced to only 38 foot while pavement width may shrink to 18 foot. This reduced width is designed for a road carrying immediately local traffic and is sufficient to accommodate fire apparatus, but offers the added benefit of neighborhood traffic calming. This approach is one of the defining principals of new urbanism, which is designed to create a pedestrian-scaled neighborhood with reduced street widths and building setbacks. A narrower street width also allows an increase in the distance from the sidewalk to the street and provides adequate space for neighborhood-scale lighting and green-space. As previously mentioned, a rural character version of Local Residential Streets is also available.

Criteria for Roadway Classification

Criteria used in determining the functional classifications of roadways are shown in **Table 7.3 - Functional Classifications**. Classification is based on each roadway's functional role in the overall network, and the existing and future travel patterns and areas served.

Arterial roadways form an interconnecting network for communitywide movement of traffic through connections to expressways, parkways and interstates. Although they usually represent only five to ten percent of the total

Table 7.3
Functional Classifications

Criterion	Expressway/ High-Speed Thoroughfare	Principal Arterial	Minor Arterial	Collector	Local Residential Street
Functional Role	Entirely through traffic movement with no direct access to property.	Mobility is primary, access is secondary. Connects Freeways and other Arterials.	Connects Freeways, Principal Arterials and lower-classification roadways. Access is secondary.	Collects traffic destined for the Arterial network. Connects Arterials to Local Streets. Also land access.	Access is primary. Little through movement.
Roadway Continuity	Inter-city, regional and interstate.	Connects Freeways to lower-classification roadways. Connect major activity centers.	Connect Freeways and Principal Arterials to lower-classification roadways.	Continuous between Arterials. May extend across Arterials.	Discontinuous. Connect to Collectors.
Roadway Length	Usually more than 5 miles long	Usually more than 5 miles long	Usually more than 3 miles long	Varies from about 1/2 mile to 2 miles	Generally less than 1 mile long
Traffic Volumes	40,000 Vehicles per Day or more	20,000 to 60,000 VPD	5,000 to 30,000 VPD	1,000 to 15,000 VPD	100 to 5,000 VPD
Desirable Spacing	5 miles or more	2 miles or more	Generally 1/2 mile to 2 miles	Generally 1/4 to 1/2 mile	Varies with block length (at least 125 feet between)
Posted Speed	55 to 70 MPH	40 to 55 MPH	30 to 45 MPH	30 to 35 MPH or less	20 to 30 MPH
Access	Controlled access. Grade-separated interchanges and frontage/service roads.	Intersect with Freeways, Arterials, Collectors and Local Streets. Restricted driveway access.	Intersect with Freeways, Arterials, Collectors and Local Streets. Limited driveway access.	Intersect with Arterials and Local Streets. Driveways permitted.	Intersect with Collectors and Arterials. Driveways permitted.
On-Street Parking	Prohibited	Restricted	Restricted	Normally permitted	Permitted
Community Relationship	Define neighborhood boundaries.	Define neighborhood boundaries.	Define and traverse neighborhood boundaries.	Internal and traverse neighborhood boundaries.	Internal.
Through Truck Routes	Yes	Yes	Permitted	No	No
Bikeways	No	No	Limited	Yes	Yes
Sidewalks	No	Yes	Yes	Yes	Yes

*** Pavement width determined by LA DOTD*

Source: Wilbur Smith Associates

roadway network, arterials typically accommodate about 30 to 40 percent of an area's travel volume. Since traffic movement, not land access, is the primary function of arterials, access management is essential to avoid traffic congestion and delays caused by turning movements for vehicles entering and exiting driveways. Likewise, intersections of arterials with other public streets and private access drives should be designed to limit speed differentials between turning vehicles and other traffic to no more than 10-15 miles per hour. Signalized intersection spacing should be long enough to allow a variety of signal cycle lengths and timing plans that can be adjusted to meet changes in traffic volumes and maintain traffic progression (preferably one-third to one-half mile spacing).

The cross section of arterials may vary from multi-lane roadways with three, four or five lanes down to two-lane roadways in developing fringe and rural areas such as the area south of Bossier City where traffic volumes either have not increased to the point that more travel lanes are needed or are not warranted due to limited density. Functional classification is not dependent on the existing number of lanes since the functional role served by a roadway typically remains constant over time while the roadway's cross section is improved to accommodate increasing traffic volumes. Thus, lower-volume roadways that are continuous over long distances may also function as arterials, particularly in fringe and rural areas.

Subdivision street layout plans and commercial and industrial districts should include Collectors as well as Local Residential Streets in order to provide efficient traffic ingress/egress and circulation. Since collectors generally carry higher traffic volumes than local residential streets, they may require a wider roadway cross-section or added lanes at intersections with arterials to provide adequate capacity for both through traffic and turning movements. However, since speeds are slower and more turn

movements are expected, a higher speed differential and much closer intersection/access spacing can be used than on arterials. Collectors typically make up about five to ten percent of the total street system.

Local residential streets allow direct property access within residential and commercial areas. Through traffic and excessive speeds should be discouraged by using appropriate geometric designs, traffic control devices, curvilinear alignments, and discontinuous streets. Local Streets typically comprise about 65 to 80 percent of the total street system in urban areas. In Bossier City, Local Streets comprise 62 percent of the total roadway mileage. Private roads make up .01 percent of the total roadway system. Local Streets in Bossier Parish compose 84 percent of the roadway system.

Thoroughfare Development Requirements and Standards

This section outlines typical criteria for certain characteristics of street and land development, which should be part of a MPC's thoroughfare development standards and subdivision regulations.

- **Location and Alignment of Thoroughfares.** The general location and alignment of thoroughfares must be in conformance with the Thoroughfare Plan. Subdivision plats should provide for dedication of needed right-of-way for thoroughfares within or bordering the subdivision. Any major changes in thoroughfare alignment that are inconsistent with the Plan require the approval of the Metropolitan Planning Commission, Bossier City and Bossier Parish through a public hearing process. A major change would include any proposal that involves the addition or deletion of established thoroughfare designations, or changes in the planned general alignment of thoroughfares that would affect parcels of land beyond the specific tract in question.
- **Location and Alignment of Collectors.** Generally, to adequately serve their role to collect traffic from local residential streets and distribute it to the arterial street system, collectors should be placed between arterial streets, with a spacing of approximately one-half mile. Figure 7.7 illustrates a functional roadway network.
- **Right-of-Way and Pavement Width.** The pavement width and right-of-way width for thoroughfares and other public streets should conform to minimum standards unless the MPC grants a waiver using formalized criteria. Properties proposed for subdivision that include or are bordered by an existing thoroughfare with insufficient right-of-way width should be required to dedicate land to compensate for any right-of-way deficiency of that thoroughfare. When a new thoroughfare extension is proposed to connect with an existing thoroughfare that has narrower right-of-way, a transitional area should be provided.
- **Continuation and Projection of Streets.** Existing streets in adjacent areas should be continued and, when an adjacent area is undeveloped, the street layout should provide for future projection and continuation of streets into the undeveloped area. In particular, the arrangement of streets in a new subdivision must make provision for continuation of right-of-way for the principal existing streets in adjoining areas - or where new streets will be necessary for future public requirements on adjacent properties that have not yet been subdivided. Where adjacent land is undeveloped, stub streets should include a temporary turnaround to accommodate fire apparatus.
- **Location of Street Intersections.** New intersections of subdivision streets with existing thoroughfares within or bordering the subdivision should be planned to align with existing intersections, where feasible, to avoid creation of off-set or "jogged" intersections and to provide for continuity of existing streets, especially Collectors and higher classes of thoroughfares.
- **Angle of Intersection.** The angle of intersection for street intersections should be as nearly at a right angle as possible. Corner cutbacks or radii should be required at the acute corner of the right-of-way line, to provide adequate sight distance at intersections.
- **Offset Intersections.** Offset or "jogged" street intersections should have a minimum separation of 125 feet between the centerlines of the intersecting streets.
- **Cul-de-sacs.** Through streets and tee-intersections are preferable to cul-de-sacs. Care should be taken so as not to over utilize cul-de-sacs, which limits thru access, restricts pedestrian circulation, increases

response times and confuse motorists. However, when cul-de-sacs are used, they should have a maximum length of no more than 600 feet measured from the connecting street centerline to centerline of radius point, with a paved turnaround pad of at least 80 feet and a right-of-way diameter at least 100 feet in residential areas, and at least 180 feet diameter on a street with a 200 foot right-of-way diameter in commercial and industrial areas. A cul-de-sac with an island should have a diameter of no less than 150 feet.

- **Residential Lots Fronting on Arterials.** Wherever feasible, subdivision layout should avoid the creation of residential lots fronting on arterials with direct driveway access to the arterial street. Lots should be accessed from Collector or, preferably, Local Residential streets within or bordering the subdivision or an auxiliary street designed to accommodate driveway traffic.
- **Residential Lots Fronting on Collectors.** Wherever feasible, subdivision layout should minimize the arrangement of lots to access Collectors, particularly within 180 feet of an intersection. To the extent possible, lots should be accessed from local residential streets.
- **Geometric Design Standards and Guidelines.** Other requirements and guidelines for the geometric design of thoroughfares and public streets should be provided in the MPC Subdivision Regulations and standard specifications. This includes special provisions for lot width and building setbacks on corner lots to preserve sight distances at adjacent intersections.
- **Private Streets.** The MPC should not approve a plat containing private streets, including gated communities and possibly manufacture housing communities unless adequate precautions are taken to ensure minimum standards of construction, necessary space for utilities and street widening, sufficient room for maneuvering emergency vehicles and appropriate pedestrian circulation and emergency access.
- **Sidewalks.** Within the boundaries of a subdivision, sidewalks should be installed on both sides of Arterial, Collector and Local Residential Streets, unless the development occurs in a rural area and will construct an internal trail system.

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) are comprised of a combination of telecommunication, computer, monitoring and control devices designed to increase the overall efficiency and effectiveness of transportation networks. Implementation of ITS results in:

- increased mobility;
- reduction in transportation costs;
- more efficient use of roadway infrastructure;
- reduced operating and maintenance cost;
- Improved air quality;
- increased roadway safety; and,
- continuously updated traffic data for traffic signal timing and planning activities.

ITS is comprised of various field equipment components used to monitor traffic operations, detect incidents, and communicate conditions to the traveling public. This section identifies and describes the ITS field components that enhance traffic operations and relieve congested conditions within transportation planning areas. These individual components are typically linked together through a fiber optic communications network. The communications network allows traffic operations personnel to monitor and respond to real-time traffic conditions.

According to a technical summary of the "Louisiana ITS Business Plan" published by the Louisiana Transportation Research Center in March 2000, LA DOTD has taken significant steps to implement many of the following components of Intelligent Transportation Systems through the plan.

Fiber Optic Communications

Recently, LA DOTD has undertaken the planning and implementation of a statewide fiber optic and wireless communications backbone system to provide for data, video, and voice communications among traffic, incident, and emergency management systems, devices, controllers and centers. This cable network uses glass fibers to transmit light pulses for moving data, voice and visual images from specific locations along the freeway to a central control center. Fiber optics is a superior

communications medium, enabling great quantities of broadcast bandwidth in an economic manner. It has superior operating characteristics, which provides a high quality communication signal with low maintenance. ITS installations typically use fiber optic cable containing eight to sixteen fiber pairs. The fiber cable is placed in underground conduits that have access boxes located at specified locations. The conduit protects the fiber cable from incidental damage.

Vehicle Detection

Vehicle detection equipment is used to gather information about the operational condition of the roadway. This information includes vehicle speeds, traffic volumes, lane occupancy and incident warning. There are three forms of vehicle detection equipment: inductive loops, microwave detections, and Video Image Processing Systems (VIPS). *Inductive loops* is a low cost technology that uses wire coils imbedded into the pavement to detect the magnetic presence of a vehicle. The disadvantage of induction loop technology is the moderate to high cost associated with installation and repair for roadways that are operational. Traffic must be diverted and the cost to motorists can be significant. Consequently, the optimal time for installing induction loops is during roadway construction. *Microwave detectors* use microwave radio signals to detect vehicles. They can be installed with little disruption to existing traffic. However, they are not as accurate as the induction loop detectors. *Video Image Processing Systems (VIPs)* use cameras to detect vehicles. Like microwave detectors, they can be installed with little impact to existing traffic. VIPs are more expensive than microwave detectors but have the added value of observing existing traffic conditions.

Changeable Message Signs

Changeable Message Signs (CMS), or Variable Message Signs (VMS), are used to communicate directly with motorists to advise them of roadway conditions. The Louisiana ITS Plan calls for "the installation of site-specific safety warning systems and weather information systems and associated dynamic message signs (DMS) and variable speed limit signs at key high accident and fog-prone locations along Interstate corridors." At strategic points along the roadway, the signs provide motorists with timely information that may cause them to alter their travel route in order to avoid traffic congestion due to traffic accidents, construction or poor weather conditions.

Highway Advisory Radio

Highway Advisory Radio (HAR) uses a low powered radio transmitter to communicate directly with motorists via their car radios. HAR systems are typically used to inform motorists of roadway construction activity, travel and destination information, and current parking conditions at large airports. Such systems can be deployed using mobile trailer platforms or can be a permanent installation. Messages transmitted can be prescribed and transmitted at predetermined times. Alternatively, through a communications link, messages can be created and downloaded to address a specific, but temporary situation. The Louisiana ITS Plan advocates the "development of an Advanced Traveler Information System to provide real-time traffic, incident, and alternative route data via DMS, displays at rest stops and other sites, and a DOTD web site."

Lane Control Signals

Closing a freeway lane under certain operating conditions can be useful in improving traffic flow. Lane Control Signals (LCS) are another form of DMS used to give advance warning to motorists of a lane blockage. Well in advance of the blockage (caused by an incident or maintenance activity) motorists are encouraged to merge from one lane into another. LCS can also be used to mitigate recurrent congestion at entrance ramps with heavy traffic volumes and freeway merges.

Closed Circuit Television

The primary uses of Closed Circuit Television (CCTV) are incident verification and management and operation monitoring. Traffic operators use CCTV to confirm traffic operations before implementing traffic control strategies. Cameras can be mounted to existing sign structures or to free standing camera poles. Cameras should be deployed to provide optimal coverage of the roadway facility. Depending on land contours and number of interchanges, cameras should be located between 1-1.5 miles apart.

There are two video formats provided for CCTV camera - full motion video and compressed video. Full motion video operates at approximately 30 frames per second and is television broadcast quality. This type of video requires large communication bandwidth. Compressed

video operates at approximately eight frames per second. Picture quality is less than full motion video but is adequate for incident detection and verification. The advantage of compressed video is that pictures can be transmitted over high-speed telephone lines.

Ramp Metering

Ramp metering uses traffic signals to control the flow of traffic at freeway entrance ramps. The purpose of ramp metering is to control the flow of traffic onto the freeway so the combined freeway and ramp traffic does not exceed the capacity of the freeway. By regulating vehicle merging activity, ramp metering also results in smoother traffic operations thus helping to optimize the vehicle capacity of the freeway mainlanes. Ramp metering can be done using fixed times (vehicles entering the main lanes at a constant rate), or the rate can be more automated to adjust to real time up-stream traffic volumes.

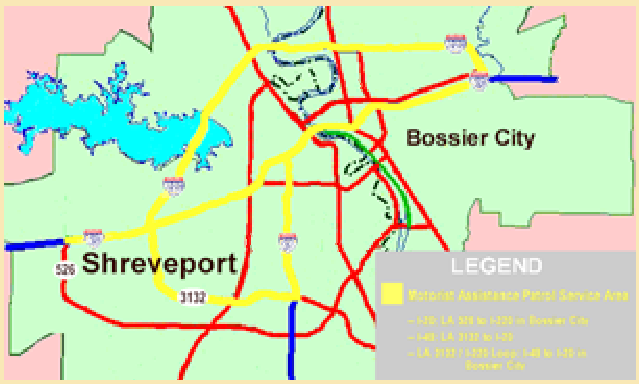
Cellular Phone Incident Reporting

Using the existing network of privately owned cellular telephones, private citizens can report traffic incidents to traffic operators. In addition to reporting traffic incidents, motorists can obtain help for themselves or other motorists. There are two types of cellular phone programs for reporting incidents. The first type involves recruiting motorists who frequently drive the area freeways to volunteer as "incident reporters". The advantage of this type of program is that volunteers are trained on how to accurately report an incident. The second type of incident reporting program targets all motorists with cellular phones to participate in reporting freeway incidents. The Louisiana State Police encourages motorists, through an extensive marketing campaign, to call *LSP (*577), which is a hot line number to report an incident using a cellular phone. The advantage of this type of program is the extensive coverage that can be obtained. The disadvantage is the reduced quality of the incident reporting.

Motorist Assistance Patrol (MAP) Program

In Louisiana and elsewhere, improved incident management capabilities are being realized through the continuation of the ongoing motorist assistance patrols, the development of incident response plans, and utilizing portable ITS applications in construction work zones. Freeways are designed as limited access facilities, so motorists who experience vehicle malfunctions may not be able to exit the facility easily. When an incident occurs it can have a severe impact on freeway operations. **Figure 7.11, Motorist Assistance Patrol Service Area** displays the corridors where the MAP service is available in the MPC Planning Area. This service is available seven days per week from 6 a.m. to 6 p.m. Sixty percent of freeway congestion is non-recurring, caused by accidents and disabled vehicles. Typically, a Motorist Assistance Patrol (MAP) program consists of personnel and equipment dedicated to providing assistance to motorists stranded on the freeway. The emphasis of MAP is on improving mobility by promptly restoring capacity to the roadway. MAP personnel patrol a freeway during the peak and off-peak hours of operation. Once a disabled vehicle or incident is identified, the MAP operator will work to resolve the situation as quickly as possible. Some of the free services offered include providing a gallon of fuel, changing flat tires, jumpstarting stalled cars, filling radiators with water, and providing a cellular phone for a local call if additional assistance is needed. The sooner the incident is resolved the less impact it will have on freeway operations. MAP operations are most effective in freeway corridors where traffic volumes are high compared to available lane capacity.

Figure 7.11
Motorist Assistance Patrol Service Area



Troop G of the Louisiana State Police responds to traffic issues along the network of state and Federal highways. In conjunction with their tasks, the Motorist Assistance Patrol responds to roadside needs on Interstates 20 and 220 in the Bossier MPC Planning Area.

Source: Louisiana Department of Transportation & Development (LA DOTD)

Traffic Signal Preemption

A traffic signal preemption system is an electrical device or devices that allow a traffic control signal to respond uniquely to the approach of a particular type of vehicle or the occurrence of an unusual condition at or near a highway intersection. Such systems are designed to increase safety, reduce emergency response times and enhance public transit operations.

A signal mounted preemption system requires the installation of a receiving device within the traffic control signal cabinet that responds to a remote triggering device attached to specific authorized vehicles. These systems may be used for the preemption of normal traffic control signal operation by the approach of emergency vehicles, or they may be used to modify the length of the green light time to allow for more efficient transit operation. Signal mounted systems generally allow vehicles traveling in the same direction as the emergency vehicle or bus to receive, or continue to receive, a green indication. In the case of emergency vehicle preemption, the green indication provides an opportunity for motorists to clear the road ahead of the advancing emergency vehicle. For signal mounted systems, if the remote signal from the source is interrupted or terminated for any reason, normal traffic control signal operation will continue. Signal mounted systems may respond to different vehicles or types of vehicles in recognition of different vehicle priorities.

Asset Management

An important and often overlooked component of ITS is documentation and record keeping of the different components and the design configuration of the system. ITS is comprised of electronic and communication equipment that is constantly in need of up-grade and maintenance. This requires system managers to have a detailed and up to date record of system components, their assembled and operation configuration, preventive maintenance schedule and the personnel providing maintenance. Systems that provide this type of asset management and control capability are based on geographical information systems (GIS) that permit the data to be presented graphically using space-oriented data bases. Space-oriented databases store data in tables that can be used to create maps of that information. For example, using asset management software allows personnel to request, via computer input, that all CCTV camera locations be displayed via a map on a computer monitor. Personnel can query the system to display any attribute the system may possess, such as the manufacturer of a specific component and that item's failure-rate history.

Asset management systems have the potential of saving millions of dollars in implementation and maintenance cost, increasing operational efficiency, and enhancing system evaluation.

Evaluation Methodology for ITS Strategies

The benefits of ITS technology come primarily from reductions in travel delay, accidents and fuel consumption. ITS technologies allow real-time monitoring and management of traffic operations for freeway and arterial facilities. These facilities can operate at a higher level of efficiency resulting in less congestion and better operating speeds for motorists. Secondary vehicle accidents are reduced by quickly responding to an accident condition and reducing the risk of related accidents and delay. Fuel consumption is reduced, lessening vehicle operating costs and improving air quality.

The Texas Transportation Institute (TTI) has developed non-recurring freeway congestion factors for freeways that operate at Level of Service (LOS) E and F during peak periods. These reduction factors measure the congestion reduction benefits of individual ITS field components and their combined synergistic benefits when implemented as a system. **Table 7.4, ITS Reduction Factors** presents potential percent reductions in congestion from an implemented ITS strategy.

The reduction factors can be applied to estimate the benefits from implementing a freeway ITS. For example, a freeway in the area will experience approximately "x-amount" of vehicle hours of delay per day. If 60 percent of this delay can be attributed to non-recurring congestion, then that accounts for approximately x-amount (0.6) of vehicle hours of delay per day. By applying the reduction factor values developed above, it is possible to estimate the reduction of congestion attributable to individual ITS components.

Because ITS installations are generally confined to Interstate Highways and other major corridors, local agencies must cooperate with the Metropolitan Planning

Organization in conjunction with LA DOTD to realize the benefits that are possible.

Table 7.4
ITS Reduction Standards

ITS Element	Reduction Factor
Loop Detectors	5%
CCTV Cameras	15%
Cellular Phone Hotline	10%
Ramp Meters	5%
Lane Control Signals (LCS)	5%
Changeable Message Signs (CMS)	15%
Highway Advisory Radio (HAR)	10%
Motorist Assistant Program (MAP)	40%
Root of Squares Summed (RSS)	48%

Source: Texas Transportation Institute, Dallas

Proposed ITS Deployment

A proposed ITS deployment plan has been prepared by Parsons Brinckerhoff Quade & Douglas, Inc. for the northwest Louisiana transportation planning area. This plan identifies by phase recommended deployment of ITS components. They include:

All Phases – Primary communication trunkline and secondary communications system. Estimated cost is $8,931,000 for construction, $893,100 for design, and $668,900 for annual operation.

Immediate – Installation of 29 CCTV cameras and traffic signal improvements at 75 intersections. Estimated cost is $10,617,000 for construction, $1,061,700 for design, and $261,100 for annual operation.

Near-Term – Installation of 135 CCTV cameras, traffic signal improvements at 114 intersections, 11 dynamic message signs, 357 radar vehicle detectors, and traffic management center software integration. Estimated cost is $39,331,500 for construction, $3,933,200 for design, and $2,620,000 for annual operation.

Long-Term – Installation of 67 CCTV cameras, traffic signal improvements at 206 intersections, two dynamic message signs, and 193 radar vehicle detectors. Estimated cost is $33, 892,300 for construction, $3,389,200 for design, and $968,100 for annual operation.

Considerations for ITS Implementation

Implementing an ITS program represents a significant and very visible commitment of personnel, time and funding. The level of effectiveness the system will have on increasing mobility, reducing congestion and improving the efficiency of the transportation network is directly connected to how well the system is implemented and subsequently maintained. The following are factors transportation agencies should consider before committing to implementation of ITS.

- A comprehensive communication requirements study should be conducted prior to the implementation of any phase of the system. A communication study looks at the overall data, voice and video bandwidth requirements for a total system. If communication/bandwidth needs are determined separately as each phase of the system is implemented, there is a greater likelihood the bandwidth for the system will either be under or over designed. This will result in lower performance, additional costs, or both.
- Developing software for integrating the system will be the greatest challenge to implementation. In all probability it will take longer, cost more, and provide the greatest level of frustration for the implementing agency than any other element associated with the system.

An asset management system to manage the multimillion dollar ITS program is critical to the long term success of the system and should be a requirement of implementation. It is much more cost effective to implement an asset management program prior to constructing the ITS than to attempt to do so years later after the system has been built. If funding is currently not programmed for an asset management system, then the implementing agencies should seriously consider delaying the ITS program until such funding can be secured.

Access Management

Access management is the coordination between land access and traffic flow along streets in the MPC Planning Area, with a basic premise to preserve and enhance the performance and safety of the major street system. It manages congestion along existing corridors such as Airline Drive and protects the capacity of future streets such as Stockwell Place Road by controlling access from adjacent development. Properly utilized, it can slow or eliminate the need for street widening or right-of-way acquisition. When widening is necessary, the limited number of access points improves the speed of design and development.

Techniques to accomplish access management include limiting and separating vehicle (and pedestrian) conflict points, reducing locations that require vehicle deceleration, removing vehicle turning movements, creating intersection spacing that facilitates signal progression, and providing on-site ingress and egress capacity. In addition, regulation focuses on the spacing and design of driveways, street connections, medians and median openings, auxiliary lanes and transit facilities, on-street parking and parking facilities, on-site storage aisles, traffic signals, turn lanes, freeway interchanges, pedestrian and bicycle facilities, bus stops and loading zones.

Research indicates that a well-designed and effectively administered access management plan can result in the following tangible benefits:

- Accident and crash rates are reduced by 40 to 60 percent
- Roadway capacity and the useful life of transportation facilities is prolonged
- Travel time and congestion is decreased
- Better coordination between access and land uses is accomplished
- Air quality is improved
- Economic activity is enhanced
- Urban design and transportation objectives are reconciled
- The unique character and livability of the community is preserved through the coordination of land use and transportation.

On the other hand, failure to manage access negatively impacts the efficiency of transportation networks in the following ways:

- More driveways related to strip commercial development
- Local streets become bypasses for congested streets thereby creating the need to address cut-through traffic in residential neighborhoods
- More frequent driveway related accidents
- Vehicle conflicts from closely spaced driveways, which increase congestion thereby reducing capacity
- Longer travel times that shrink market areas for business
- More difficulty in providing safe access for new development thereby affecting economic growth
- Lower cost/benefit ratios of transportation improvements
- Greater need for wider streets to compensate for lost capacity
- More cluttered streets and frequent driveways, which create an undesirable environment for pedestrians and bicyclists.

The following access management strategies may be used to coordinate the access needs of adjacent land uses with the function of the transportation system:

- **Intergovernmental Coordination.** Certainly access management in the MPC Planning Area will require coordination between Bossier City and Bossier Parish. However, a more regional strategy involves members of the Northwest Louisiana Council of Governments, as well as LA DOTD and federal organizations involved in design and construction of roadways. Through coordinated efforts, access management can even further emphasize thoroughfare efficiency.
- **Separate Conflict Points.** Two common conflict points are driveways and adjacent intersections. Spacing driveways so they are not located within the area of influence of intersections or other driveways is a method to achieve access management objectives.

Stockwell Place Road is a good example of the impact that residential driveways from strip development along a suburban collector road can have on current and future capacity.

- **Restrict Turning Movements at Un-signalized Driveways and Intersections on Multi-Lane Roadways.** Full movement intersections can serve multiple developments through the use of joint driveways or cross-access easements. Turning movements can be restricted by designing accesses to limit movements or by the construction of raised medians that can be used to provide turn lanes.
- **Establish Design Standards.** Design standards addressing the spacing of access points, driveway dimensions and radii, sight distance, and the length of turn lanes and tapers are effective mechanisms for managing the balance between the movement of traffic and site access.
- **Locate and Design Traffic Signals to Enhance Traffic Movement.** Interconnecting and spacing traffic signals to enhance the progressive movement of traffic is another strategy for managing mobility needs. Keeping the number of signal phases to a minimum can improve the capacity of a corridor by increasing green bandwidth by 20 seconds.
- **Remove Turning Vehicles from Through Travel Lanes.** Left and right turn speed change lanes provide for the deceleration of vehicles turning into driveways or other major streets and for the acceleration of vehicles exiting driveways and entering major highways.
- **Encourage Shared Driveways, Unified Site Plans and Cross Access Easements.** Joint use of driveways reduces the proliferation of driveways and preserves the capacity of major transportation corridors. Such driveway arrangements also encourage sharing of parking and internal circulation among businesses that are in close proximity.

Funding Sources

Implementation of the Master Thoroughfare Plan or the goals, objectives and actions of the transportation element is not the responsibility of a single entity or agency. Instead, it will require coordination and the combined resources of local, state and federal transportation funding programs, as well as participation by the private sector. Following are alternative funding sources that are available or could be considered for financing future improvements to the transportation system in the MPC Planning Area.

Federal Funding

Many of the transportation improvements will be eligible to receive federal funds as part of the Transportation Efficiency Act of the 21st Century (TEA-21). This six-year program (through 2003) provides federal funding for surface transportation improvements, including roadways, public transportation, pedestrian facilities, and a number of other transportation improvements. TEA-21 emphasizes the development of a National Intermodal Transportation System that effectively connects highways with other modes of transportation. Additionally, TEA-21 gives states and local governments a significant amount of flexibility in determining the use of available federal funds. The federal share required for TEA-21 funding is generally 80 percent, with the remaining 20 percent provided by the state or local governments.

Title I - Surface Transportation - This title includes a number of programs and provisions oriented toward providing funding primarily for highway related projects. Some of the key programs within this title include the following:

- **National Highway System (NHS) -** This program provides funding for improvements to rural and urban roads that are part of the NHS, including Interstate Highways and designated connections to major intermodal terminals. In certain circumstances, NHS funds may also be used to fund transit improvements in NHS corridors.
- **Surface Transportation Program (STP), Federal Hazard Elimination Program -** This program addresses safety-related projects on and off the state highway system. Projects are evaluated using three years of accident data, and ranked by a Safety Improvement Index.
- **Surface Transportation Program (STP), Federal Railroad Signal Safety Program -** This program provides for installation of automatic railroad warning devices at most hazardous railroad crossings on and off of the state highway system. Projects are selected from a statewide inventory list, which is prioritized by

an index (number of trains per day, train speed, ADT, type of existing warning device, train-involved accidents within prior five (5) years, etc.).

- **Highway Bridge Replacement and Rehabilitation Program (HBRRP) -** This program provides funds to assist the States in their programs to replace and rehabilitate deficient on-state highway bridges.
- **Congestion Mitigation and Air Quality Improvement Program -** The primary purpose of the Congestion Mitigation and Air Quality Improvement Program (CMAQ) is to fund projects and programs in air quality and maintenance areas for ozone, carbon monoxide (CO), and small particulate matter (PM-10) which reduce transportation related emissions.
- **Transportation Enhancements (TE) -** Transportation enhancements are transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of the Nation's intermodal transportation system. The transportation enhancements program provides for the implementation of a variety of non-traditional projects, with examples ranging from the restoration of historic transportation facilities, to bike and pedestrian facilities, to landscaping and scenic beautification, and to the mitigation of water pollution from highway runoff.
- **Recreational Trail Program -** This program provides funds to develop and maintain recreational trails for motorized and non-motorized recreational trail users.
- **Bicycle Transportation and Pedestrian Walkways -** The Bicycle Transportation and Pedestrian Walkways provisions of Section 217 of Title 23, as amended by TEA-21, describe how Federal-aid funds may be used for bicycle and pedestrian projects. These projects are broadly eligible for all of the major funding programs where they compete with other transportation projects for available funding at the State and MPO levels.
- **Job Access and Reverse Commute Grants -** The Access to Jobs Program provides competitive grants to local governments and non-profit organizations to develop transportation services to connect welfare recipients and low-income persons to employment and support services.

State Funding

- **Transportation Enhancement Program (TEP) -** The Transportation Enhancement Program is a Federally funded program administered through LA DOTD. The goal is to work toward building a more balanced transportation system that includes pedestrians and bicyclists as well as the motoring public. However, projects are not limited to sidewalks and bike paths. They can include safety and educational activities for pedestrians and bicyclists, landscaping and other scenic beautification, historic preservation, acquisition of scenic easements and scenic or historic sites, preservation of abandoned railway corridors, scenic or historic highway programs including the provision of tourist and welcome center facilities, archaeological planning and research, control and removal of outdoor advertising, environmental mitigation and establishment of transportation museums.
- **Transportation Infrastructure Model for Economic Development (TIMED) –** The Transportation Infrastructure Model for Economic Development is based upon state legislation (Act 11 of the 1989 General Session) to allocate an additional four cent fuel tax to a fifteen year construction program for sixteen projects considering economic development opportunities versus needs. U.S. 171 is one of the corridors that is benefiting from this program.
- **Capital Outlay Program -** The Capital Outlay Program is a Bond Program that provides a source of funding for public improvement type projects not eligible for funding through any of the dedicated funding programs. The funds are provided through the sale of State General Obligation Bonds and can be used for acquiring lands, buildings, equipment or other properties, or for their preservation or development of permanent improvements. Items which qualify as capital outlay expenditures include acquisition of land; site development and improvement; construction of buildings and other structures; additions, major improvement, and alterations to an existing facility that will extend its life or increase its usefulness; installation, extension, or replacement of utility systems, fire protection, and other major

facilities; initial equipment and furnishings for new buildings; and major equipment and furnishings for existing buildings.

Projects compete through the legislative process, and successful ones are grouped into various funding priorities and included in the approved Capital Outlay Bill. Funding for a specific project does not become available until such time as the bonds for that project are sold, or the State Bond Commission approves an advance cash line-of-credit.

- **Port Construction and Development Priority Program –** The Port Construction and Development Priority Program was created by the Legislature in 1989. According the to LA DOTD, the purpose of this priority program is to allocate state funds to port projects that have the highest prospects of success as determined by objective standards such as technical and financial feasibility and overall impacts. The program specifically emphasizes the need to equitably distribute state funds and to avoid duplication of port infrastructure. A rigorous analysis of forecasted project benefits is undertaken in order to ensure that project impacts are positive and beneficial to the State.
- In order to be eligible for funding, a port authority must submit an application for consideration. These applications are reviewed, evaluated and prioritized. As allowed by statute, LA DOTD contracts with the LSU National Ports and Waterways Institute for assistance with the economic evaluation of these projects. The program requires a cost participation from the ports of 10% based on construction cost of the project.

Local Impact Fees

Annually, the City and Parish each should prepare a five-year capital program and a one-year capital budget. Included in the budget should be lists of projects, cost estimates and the source(s) of funding. Foregoing any federal, state, or private participation, the primary source of local funding, outside of general budget expenditures and the use of bonds is impact fees.

Consideration could be given to establishing an impact fees program to serve as an additional funding source for transportation improvements. A growing number of local jurisdictions and state governments throughout the United States are establishing impact fee programs as a method of private financing of needed transportation and other infrastructure improvements. Traffic impact fees are prevalent in the states of Florida and California, with State enabling legislation for local implementation enacted in Arizona, Colorado, Georgia, Illinois, Maryland, New Jersey, New Hampshire, North Carolina, Oregon, Pennsylvania, Texas, Utah and Washington. This trend is due to the increasing cost of maintaining existing infrastructure and the difficulty of local governments to provide needed improvements due to the lack of adequate funding on the federal, state and local levels.

A traffic impact fee is an exaction imposed by a local government on new development to generate revenue for funding transportation improvements needed to accommodate or alleviate traffic impacts caused by the development project. Impact fees, as distinguished from a general-purpose tax, are levied to allow the local government to build public infrastructure made necessary by a new development or renovation that results in new impacts. However, impact fees cannot be used to pay for correcting past deficiencies in existing facilities due to failure to keep pace with the impact of past development, nor can impact fees be used to support operation and maintenance of existing facilities. Impact fees have been used to provide capital funding for infrastructure improvements such as streets and other transportation improvements, water supply systems, wastewater collection and treatment systems, drainage, recreational facilities, police and fire protection facilities, and medical facilities. Developers can also be allowed to construct improvements and/or dedicate land for rights-of-way in lieu of paying impact fees.

Traffic impact fees provide a means of sharing the cost of transportation improvements that provide capacity for new development projects within a particular area. Generally, a district is delineated and transportation improvement needs within the district are identified based on projected future development. The number of trips that are generated by a particular development and an assessment of its traffic impacts are usually the basis for determining the share of total improvements costs that is assessed to the developer. Level-of-Service "C" or "D" is typically used as the standard for identifying needed

improvements. In residential areas, the traffic impact rate is often based on a cost per dwelling unit, and in commercial and industrial areas on cost per square foot or acre. Five-year capital improvements programs and major street plans are the most common background documents for calculating and implementing impact fee structures. Traffic impact fees are typically paid at the building permit stage.

Some advantages of an impact fee program are as follows:

- Improvement costs shared by all area development on a pro-rata basis based on their respective trip generation and traffic impacts;
- Provides an additional source of revenue to finance a portion of future transportation and other infrastructure improvements;
- Existing revenue sources can be devoted to maintaining existing service levels and funding improvements to correct existing deficiencies;
- The cost of infrastructure improvements is paid, all or in part, by those who directly benefit from those facilities; and,
- As a form of user charge, impact fees introduce the cost of necessary public infrastructure improvements into the private development decision-making process, thereby imposing a degree of market discipline on resource allocation decisions.

Thoroughfare Master Plan Implementation

Implementation of thoroughfare system improvements occurs in stages over time as development continues and, over many years, builds toward the ultimate thoroughfare system shown in the Thoroughfare Plan for the MPC Planning Area. The fact that a future thoroughfare is shown on the Plan does not represent a commitment to a specific time frame for construction, nor will that any of the jurisdictions involved in road construction build the roadway improvement. Individual thoroughfare improvements may be constructed by a variety of implementing agencies, including Bossier City, Bossier Parish and the Louisiana Department of Transportation and Development (LA DOTD), as well as private developers, intra-governmental agencies, and land owners for sections of roadways located within or adjacent to their property. Road construction can be implemented by individual entities, such as Bossier Parish, or in partnership with an entity such as Bossier Parish.

Each of these entities can utilize the Thoroughfare Plan in making decisions relating to planning, coordination and programming of future development and transportation improvements. Bossier City and Bossier Parish should utilize the Plan as a means of coordinating with NLCOG to place projects on the area Transportation Improvement Plan. Review of preliminary and final plats for proposed subdivisions in accordance with the MPC's subdivision regulations should include consideration of compliance with the Master Thoroughfare Plan in order to ensure consistency and availability of sufficient right-of-way for the general roadway alignments shown in the Plan.

It is of particular importance to provide for continuous roadways and through connections between developments to ensure community wide mobility. By identifying thoroughfare locations land owners and developers can consider the roadways in their subdivision planning, dedication of public right-of-way, and provision of setbacks for new buildings, utility lines, and other improvements located along the right-of-way for existing or planned thoroughfares.

Plan Amendment Process

It will be necessary for the Metropolitan Planning Commission to periodically consider and adopt amendments to the Master Thoroughfare Plan to reflect changing conditions and new needs for thoroughfare system improvements and development. A systematic procedure should be followed for making Plan amendments, including a set schedule for annually inviting and considering proposed changes.

The process for amending the Master Thoroughfare Plan should be established by ordinance. Typically, Plan amendment requests may originate from landowners, civic groups, neighborhood associations, developers, other governmental agencies, MPC staff, and other interested parties. The MPC and applicable members of City or Parish staff should analyze proposed revisions. The MPC should then formally consider the proposed changes and staff recommendations. The Commission should conduct a public hearing on proposed amendments,

including required public notice in advance of the hearing. Proposed amendments should be considered in a fair, reasonable, and open process. The burden for proving compelling reasons for the public benefit of any proposed changes should rest with the requesting parties. Decisions and determinations should represent the best interests of the public.

The revised Master Thoroughfare Plan, including any approved Plan amendments, should be adopted by the MPC and submitted to the Bossier City Council and Bossier Parish Police Jury for its consideration. The amended Plan becomes effective upon final adoption.

Utilities & Infrastructure

Public utilities and infrastructure includes all piping systems and facilities that are used to distribute, collect, transmit, control, or dispose of drinking water, stormwater and sewage (wastewater). The extension of utility services into future growth areas determines whether or not quality, sustainable growth can occur in these areas. More, upgrades of utilities in developed areas assure that the required level of service will be maintained as further development and infill occurs. The expansion of potable water, wastewater, and stormwater facilities is necessary to support the desired economic potential of Bossier City and Bossier Parish and to meet the increased utility demands of a growing population for the next twenty years and beyond.

To encourage quality growth, the utility systems must meet certain requirements. There should be a reliable, safe and adequate supply source of treatable water. Drinking water should meet minimum standards for taste, odor, color and hardness and be in compliance with the legal limits of health risk contaminants as regulated by the Environmental Protection Agency (EPA) under the Safe Drinking Water Act (SDWA). The public owned water supply (POWS) should be adequate to meet all domestic, industrial, commercial, and fire protection needs. Standards for rural areas must also assure water quality and domestic supply and provide fire flow levels consistent with low density urban residential areas. Adequate drainage and flood protection should be afforded to all developed areas to avoid disaster and to maintain accessibility. Sewer collection systems should be capable of delivering wastewater discharges from household, commercial and industrial connection points to the wastewater treatment facility with minimum stormwater inflow and groundwater infiltration and no risk for environmental contamination. All gaps, breaks or other defects in the sewer system, which allow the wastewater stream to have potential contact with the potable water or stormwater drainage systems, should be eliminated to protect public health and the environment.

The Utilities element of the Bossier Plan contains many of the issues and concerns of public officials who are charged with maintenance and operation of their utilities, engineering, public funds allocation and capital improvements as well as review of private development proposals and regulation of other public and private utility services. Public officials and supervisory personnel from Bossier City and Bossier Parish provided much of the information contained herein regarding existing infrastructure issues, conditions, capacities, administration, supervision, personnel, technical training, codes, standards, ordinances and regulatory compliance. In addition, concerns and issues from citizens recorded during public meetings are included.

The Land Use element of the Bossier Plan identifies where growth is most likely to occur based on uses that will meet the needs and desires of the community. Utilities' planning takes into account that a significant portion of total growth will not necessarily take place on vacant property, but in areas already developed or in areas of potential revitalization. Constraints such as the Red River levee, Barksdale Air Force Air Installation Compatibility Use Zone (AICUZ), environmentally sensitive areas and flood prone areas should serve to confine the growth pattern on vacant land to areas with quality access and an elevation above the 100-year flood plain.

Introduction
Area Profile
Vision & Goals
Market Assessment
Land Use
Parks & Open Space
Transportation
Utilities & Infrastructure
Housing
Image & Design
Facilities & Education
Policies & Strategies
Implementation

The Utilities element includes goals, objectives and actions, which provide a framework for plans to address existing issues and problems as well as to prepare for future expansion and infill. It should be used as a guide for decision making with regard to the provision of adequate utilities in future areas of growth so as not to hinder development potential. The Utilities element consists of six general sections including:

- Water and sewer, flooding and stormwater Issues as raised by concerned citizens, City and Parish officials, and utility department operating and maintenance personnel;
- Related studies and ordinances;
- Goals, objectives and action statements that address utility issues;
- Existing system conditions and capacities;
- Details of the Master Plan including specific recommendations; and,
- Funding sources available to implement recommendations.

Utilities, Flooding and Stormwater Drainage Issues

As determined from comments obtained during an interview process with City and Parish officials and utility department supervisory personnel, along with responses from citizens during two series of public meetings, major issues have been summarized into broad categories. Each issue is addressed through goals, objectives, actions and the Future Water System Plan.

- **Water Supply -** Source security, availability and conservation are the primary issues concerning the general public with regard to the water supply for Bossier City and Bossier Parish. In light of recent acts of terrorism and the general fear of assault on the nation's infrastructure, there is a real concern for protection of the surface water supply and the delivery system from malicious contamination or vandalism.

In light of recent acts of terrorism and the general fear of assault on the nation's infrastructure, there is a real concern for protection of the surface water supply and the delivery system from malicious contamination or vandalism.

In addition, a natural resources conservation strategy needs to be adopted that establishes practical conservation measures for long-term, efficient use of groundwater, surface water and energy resources by the general public and private industry.

Increased demands on water wells in the Wilcox groundwater formation have resulted in water supply problems in areas of Bossier Parish where private and community water system wells are the only water source. Alternate surface water treatment sources, including connection to the Bossier City system or a separate regional water treatment plant, need to be studied and developed to reduce demand on ground water and assure a constant supply of safe drinking water for rural residents in the Parish.

- **Water Treatment** - Treatment plants require constant maintenance and attention to keep operations running smoothly and efficiently. Plant operation and maintenance involves many tasks to monitor and check conditions of items such as discharge quality, chemical feed rates, influent/effluent flow rates, pumping/process equipment operation, storage volumes, valves, on-site chemicals inventory, spare parts, sludge disposal, and algae control. Equipment, piping, fittings and valves are subject to corrosion attack from repeated exposure to chemicals, water, sunlight, and humidity. Mechanical equipment items routinely fail or break down from normal wear and tear, abuse, defective manufacturing, poor application design or a number of other reasons.

  Improved monitoring of processes and equipment affords the plant superintendent and operators instant access to information that aids decision-making and control abilities. Instruments that measure physical parameters such as temperature, pH, chlorine residuals, dissolved oxygen levels, flow rates, etc. in water and wastewater are vital for automated systems and manual controls to function effectively.

- **Water Distribution** - High demand for water during periods of hot weather and drought conditions

present problems associated with low pressure such as inadequate fire flow, difficulty in filling elevated storage tanks, and taste, odor, and disinfection problems.

There have been periods of extreme drought where daytime peak demands have placed a strain on the water plant's pumping capability to maintain adequate line pressures in the extreme reaches of the distribution system. Plant treatment capacity is adequate, but the pumping distance required and piping characteristics prohibit delivering treated water into the distribution system at a rate high enough to satisfy short-term peak demands at the outermost extremities. This presents a major difficulty in determining disinfection dosage rates to maintain adequate chlorine residuals throughout the system.

Chlorine residuals, as monitored by the water department and Department of Health and Hospitals, are routinely low in the southern extremities of the distribution system. These low chlorine levels are a result of restrictive pipe sizes, long pumping distances and dead-end pipe sections that exist between the water treatment plant high service pumping facilities and the southernmost system point service connections.

Large diameter yard and process gate valves, which are seldom used, are extremely difficult to open and close without the aid of a valve truck. There are several valves that are not operational due to broken shafts from excessive torque application or being frozen due to excessive corrosion and mineral deposits.

The extreme southern end of the distribution system experiences periodic cycles of low pressure, especially during summertime periods of high demand. During these periods, the Highway 71 South elevated storage tank often experiences difficulty in re-filling during off peak hours in time to meet the next cycle of daily peak demand. Plant high service discharge pressures required to fill the tank effectively during these off peak hours are often above the maximum safe operating limit. In effect, this indicates that the distribution system main to the southern section of Bossier City is of inadequate capacity to meet instantaneous peak demand requirements.

System pressures in the northern sections between Benton Road and Airline Drive have also been extremely low during periods of high demand. The relatively high population growth of this area has led to water use that has outgrown the ability of existing service mains to effectively meet instantaneous peak demands and maintain minimum fire flow requirements. At the present time, there is no elevated storage tank in this area, which would minimize system response time by placing the additional volume of water required closer to the demand point.

- **Sewer Collection, Treatment and Disposal** - Rehabilitation, repair and replacement of non-functioning, outdated and inefficient equipment systems is vital to assure that unnecessary, wasteful use of supervision, labor and electrical power is mitigated. Therefore, it is extremely important that supervisory personnel have the necessary manpower and materials to effectively maintain and operate the wastewater plant to provide a high level of service to the public at minimal cost. In addition, it is important that resources be allocated to address all plant safety concerns and compliance with Occupational Safety and Health Administration (OSHA) regulations for items such as material and treatment chemicals handling, confined space entry, fall protection, accident prevention and facility access issues.

  Infiltration of groundwater and inflow of surface water runoff into the sanitary sewer collection system introduces additional flows that the treatment plant must process. A large influx of stormwater into the plant can overload the system process and upset the biological sludge stabilization process. In addition, if collection system piping, manholes or lift station wetwells are defective, the potential for pollution of the surrounding environment exists.

  In the wastewater collection system, lift stations raise the wastewater to a higher elevation to continue gravity flow at reasonable slopes and depths and transfer wastewater between gravity drainage basins. Lift stations may be built in place or supplied as package units and consist of a collection manhole, pumps and a discharge pipe known as a force main.

  Because the plan area's topography is very flat, lift stations are a requirement for most new

development. These lift stations typically discharge into the closest gravity sewer lines. The gravity sewer lines on the periphery of Bossier City's wastewater collections are not always sized to accept these additional flows.

The untreated sewer waste stream should remain completely isolated from the stormwater collection system, rising flood waters, open ditches and surface water runoff. Piping and manholes should be cleaned and washed out routinely to remove the accumulation of sediment, trash and debris that affects the ability of the system to convey wastewater to the plant without flow obstruction and backup.

Red River Wastewater Treatment Plant staff is currently unable to effectively monitor the major plant systems and processes from a central location in the plant control room. A Systems Control and Data Acquisition (SCADA) system is being planned for the Red River Waste Water Treatment Plan (WWTP) to allow for remote monitoring of various wastewater plant functions. However, the Red River WWTP has no plans to utilize this type of system for control, data acquisition and recording tasks.

During site visits and other conversations with plant staff, several other areas of the plant may need upgrading or rehabilitation sometime in the future, including:

1. Lighting for the entire plant;
2. Hand rails for treatment basins (Red River);
3. A hoist for influent screw pump motors (Red River); and,
4. A hoist for return sludge pumps (NE).

Utilities construction by private developers outside the city limits are frequently incompatible with Bossier City codes and standards. A requirement for developers of new subdivisions to construct wastewater collection and lift station facilities according to the Bossier City Utilities Department standards and specifications, and provisions for enforcement of the requirement, would mitigate problems when ownership is deeded to the City for maintenance and operation.

- **Stormwater and Flood Management** - Bossier Parish receives an abundance of rainwater every year. While ample rainfall and water is needed for the agriculture and many recreational activities, it can be a problem for residential, commercial and industrial land uses with inadequate drainage systems that are located within flood prone areas.

Bossier City and most of the study area is very flat and prone to flooding. This photo shows a high water event on the Red River in April 2002.

Flooding and poor drainage of land are deterrents to land development. The cost associated with development of land in these areas often deters development until growth demands make development more economical. The development pattern of the study area proves this point. The floodplain regions located along the northern, eastern and southern portions have received sparse development until recently due to the proximity of flood prone and environmental sensitive areas. It was not until the shortage of high safe ground occurred, which was more economical to develop, that growth demands pushed development into areas requiring more substantial development costs. Factors causing higher costs include larger and more elaborate drainage systems, greater site work costs and difficult access to the necessary utility systems.

In an effort to encourage growth and reduce the effect of flooding on existing development, Bossier City and Bossier Parish, in conjunction with Federal and state agencies, have implemented control measures. These control measures include enlargement and improvement of bayous and drainage canals, levee construction, and development of flood control and water supply reservoirs. However, with these improvements come

the costs and the demand of ongoing maintenance and repair.

Bank erosion and water quality are also key stormwater management issues that must be managed by governmental officials and private citizens alike. Bank erosion caused by high velocity flows, inadequate channel configuration (steep bank slopes and/or undersized) and lack of bank protection (when required) reduce the amount of valuable property and cause sediment problems downstream as well as water quality problems. Stormwater runoff carrying fertilizers, chemicals, oils and greases and similar chemicals also have a dramatic effect on receiving water quality. Pollution of these waters can dramatically affect fish, wildlife, and fauna located within or near these waters as well as water supply and recreational activities for residents. Reports of water quality problems have been identified in the study area. Areas adjacent to or downstream of urbanized and residential development are especially susceptible to water quality problems.

In a 1994 meeting involving a drainage coalition of governmental, environmental, planning and engineering professionals, developers, and citizens concerned about drainage and flooding, several key stormwater and drainage problems were identified. These problems were summarized into six broad-based problems, including:

1. Flooding within Bossier City.
2. Flooding in the lower regions of Bossier Parish.
3. Gully erosion into Flat River and Red Chute Bayou.
4. Water quality problems in the Flat River Watershed.
5. Loss of wetlands and associated resources.
6. Inadequate floodplain management due to rapid development.

These issues are as pertinent today as they were then. Upon review of the ordinances and policies implemented by Bossier City, Bossier Parish and the MPC concerning stormwater issues, it appears that there are sufficient regulations and policies to address many of the current problems. This, however, does not mean that further modifications are not needed to strengthen some areas and to improve coordination between agencies. Research has indicated that frequently the required rules are waived by the governing authority, usually for what appear to be rational reasons. Often though, this has resulted in problems in subsequent development. The waiver of drainage requirements should be thoroughly reviewed before being allowed by the governing body. In addition, because of significant recent residential, commercial, and industrial development, the controlling agencies should develop drainage criteria fact sheets and recommended best management practices to help standardize and assist in orderly development.

- **Failing or Aging Infrastructure** - Bossier City and Bossier Parish have utility systems and structures in place that are old, dilapidated and have outlasted their useful life expectancy. These systems are in various stages of deterioration from corrosion brought on by freeze-thaw cycles, chemical corrosion, acid attack, weather exposure or physical damage. Some systems are simply outdated and need to be replaced with newer technology for cost efficiency and regulatory compliance.

  There are several water distribution mains and neighborhood water distribution sub-systems that require excessive maintenance and need to be completely replaced. Small diameter and cast iron piping that do not meet current American Water Works Association (AWWA) standards needs to be replaced with new, larger diameter and improved technology material such as polyvinyl chloride (PVC) or high density polyethylene (HDPE). Dead ends, restrictions and piping with interior restrictions are typical characteristics of the older sections of water distribution piping system that adversely affect the overall hydraulic efficiency. These factors contribute to high internal friction losses and the resulting larger pressures, which require higher pumping energy and maintenance costs.

  Slow moving, overloaded or obstructed sewer gravity lines and long force mains create anaerobic (absence of free oxygen) conditions ideal for the production of hydrogen sulfide (H2S) from the decomposition of organic matter in wastewater. Sulfuric acid is produced by bacteria, which oxidize

the naturally occurring gaseous phase hydrogen sulfide (H2S). This formation process occurs in the transition zone below the pipe crown and above the water line where H2S gas accumulates. The odor produced from the release of H2S gas into the atmosphere and the damage to piping and manholes from sulfuric acid attack are detrimental problems that need to be addressed.

Structural deterioration from acid attack, defective construction, pipe joint separation and physical damage are all problems that exist in Bossier City and compromise the overall integrity of the collection system infrastructure. Open cracks, holes, joints, etc. are sources of infiltration and inflow (I&I) into the system from groundwater and surface water runoff and result in excessive loading of the collection system and treatment plant processes.

Existing conditions of the Bossier City collection system infrastructure exhibit various levels of damage from sulfuric acid attack corrosion and also from physical damage. Some of the various problems associated with this include:

1. Erosion of concrete interior surfaces from acid attack;
2. Crumbled and collapsed interior walls;
3. Corrosion of cast metal rings and manhole covers;
4. Corrosion of metal access doors, steps, rail system supports and other miscellaneous metal items;
5. Sewer line pipe joint separation; and,
6. Cracked or broken concrete structures from physical damage or movement due to erosion or consolidation.

Regulatory Issues

Wastewater Treatment

The current U.S. EPA permit and Louisiana Pollution Discharge Elimination System (LPDES) Permit No. LA0065978 for the Northeast Wastewater Treatment Plant (NEWWTP) became effective November 1, 1998 and expires on November 1, 2003. Therefore, the permit renewal process for the plant needs to begin soon. The NEWWTP, which is located at 8000 Shed Road, has been authorized to discharge treated sanitary wastewater to the Red River via a 7-mile force main.

Diversion of the effluent discharge of NEWWTP from the Red Chute Bayou on December 22, 1994, to the Red River enabled the issuance of less stringent effluent limitations, which are reflected in the current permit. The NEWWTP consistently meets all effluent limitations and is not under any enforcement actions by the U.S. EPA or by the Louisiana Department of Environmental Quality.

The current NPDES Permit No. LA0053716 for the Red River Wastewater Treatment Plant (RRWWTP) became effective December 1, 1994 and expired on November 30, 1999. An application for a new permit was submitted to the Louisiana Department of Environmental Quality (LDEQ) on May 18, 1999 and is still under review. The RRWWTP has been authorized to discharge treated sanitary wastewater to the Red River immediately west of and adjacent to the treatment plant site. The RRWWTP consistently meets all effluent limitations and is not under any enforcement actions by the U.S. EPA or by the Louisiana Department of Environmental Quality.

The City of Bossier City currently hauls their processed sludge (biosolids) to two land sites for final disposal in accordance with the sewage sludge requirements of the LPDES Permit No. LA0065978.

Stormwater

To reduce the effects of flooding on new development, it is now required that all inhabited buildings are built above the base flood elevation. In order to accomplish this task with some level of confidence, accurate up-to-date flood maps are required. The Federal Emergency Management Agency (FEMA) is in the process of having the flood insurance rate maps (FIRM) for the master plan study area updated to reflect current flood conditions. Upon completion, these maps should be reviewed for correctness and when approved, officially adopted to be used for development.

In order to help address nationwide water pollution, the Environmental Protection Agency (EPA) was tasked by Congress with development of a program to reduce pollution from stormwater runoff. To accomplish this task, the EPA created a tiered approach. The Phase I EPA stormwater NPDES program, which addressed permitting of runoff from large to medium cities and from certain types of industrial activity, has been implemented. The

Phase II rules, which are geared toward cities and adjacent areas with a population of 50,000 persons and above, will affect Bossier City and the areas within the study area. This rule requires that Bossier City and Bossier Parish submit a permit application to apply for a Phase II National Pollutant Discharge Elimination System (NPDES) permit by March 10, 2003. In the permit, six major control measures will need to be addressed and implemented, including:

- Public education and outreach program on storm water impacts;
- Public participation/ involvement programs;
- Illicit discharge detection and elimination program;
- Post-construction stormwater management in new development and redevelopment areas;
- Construction site stormwater runoff control; and,
- Pollution prevent/ good housekeeping for municipal operations.

Related Studies and Ordinances

Pre-treatment Ordinance

The Sewer Use Ordinance for Bossier City establishes rules and regulations regarding discharge of commercial and industrial organic and inorganic wastes into the City collection system. The ordinance sets forth discharge limits for oil, grease, and other contaminants and rules for pretreatment, monitoring and reporting methods and documentation. This ordinance serves to prevent the introduction of fats, oils and grease into the wastewater stream, which causes buildup problems in sewer lines and interferes with biological action at the treatment plant.

The Hydraulic Analysis and Master Plan for the Bossier City Water System, April 2002

This plan was authorized by Bossier City to define and determine solutions for existing problem areas with regards to pressures, fire protection, storage, and excessive residence times. The method involved creation of a base map of the City's existing water distribution system and a computerized hydraulic model, which was used as an analytical tool. The model was also utilized to predict the effect of future growth on storage, supply, and line sizing. This report evaluated the adequacy of the Bossier City water distribution system and determined the improvements needed to meet current and projected water demands through the year 2025.

Facility Plan for Northeast Wastewater Treatment Plant and the Red River Wastewater Treatment Plant - City of Bossier City - Bossier Parish, Louisiana, January 2001

This plan evaluated the existing plant process at the wastewater treatment plant facilities with regard to condition of the existing infrastructure, odor control, plant efficiency, regulatory compliance and treatment capacity. In addition, the plan projected demand requirements for future population and service area growth and made recommendations for appropriate improvements and expansion.

Chapter 9, Drainage and Flood Control Ordinance for Bossier City with subsequent amendment ordinances

These ordinances outline the authority, administrative procedures and provisions for flood hazard reduction within the City of Bossier. While fairly general in nature, they provide substantial power and leeway to the City for regulation of drainage and flood control issues within the City of Bossier City. Amendment Ordinance 47 of 1998 revised the regulations for the National Flood Insurance Program listed in Chapter 9 to meet updated eligibility requirements for Federal Flood Insurance. Ordinance 38 of 2001, revised the Flood Damage Prevention requirements. This revision made it mandatory that all new construction or substantially improved construction lowest floor elevations are placed a minimum of one foot above the base flood elevation.

Bossier City-Parish Metropolitan Planning Commission Zoning Ordinance with revision ordinances

These mutually adopted ordinances establish the requirements for zoning and land use within Bossier City and the unincorporated portion of Bossier Parish lying within five miles of the Bossier City corporate limits, which designates the Metropolitan planning district boundary.

Bossier City-Parish Metropolitan Planning Commission Subdivision Regulations with revision ordinances

These mutually adopted ordinances establish the rules and regulations for the subdivision of land within the planning area of the Bossier City-Parish Metropolitan Planning Commission.

Section 25, Streets, Roads, Sidewalks, Drainage, Bossier Parish Code of Ordinances

This section provides guidance for drainage as well as features for areas of the Parish outside of subdivisions.

South Bossier River Basin Study, April 1998

This comprehensive river basin study, developed by the United States Department of Agriculture Natural Resources Conservation Service, provides a detailed discussion on the South Bossier River Watershed Basin, which includes the master plan study area. This report describes the physical and hydrologic condition and land uses of the watershed, major storm water and flood related problems, and alternative and recommended solutions to the problems. This document has a wealth of information, which should be used in alleviating and solving flooding and storm water problems.

Owen & White, Inc. South Bossier River Basin Study, May 1996

This report presents the findings of the hydrologic and hydraulic analysis, which was performed for the South Bossier River Basin Study mentioned above. Included in the report are maps, diagrams, analyses information and drainage recommendations. This report should be used in conjunction with the above report and should serve as a valuable tool in preparing and implementing flood prevention and drainage improvement measures.

Flood Hazard Mitigation Plan, August 2001 (Draft)

This document is to assist the City of Bossier City in preparing and implementing a plan to reduce future flood disaster losses and encourage effective management of National Flood Insurance Program (NFIP) compliance ordinances. The plan includes areas of Bossier City and the Parish located within the master plan study area. Elements of this plan are key tools, which will be used by Bossier City for the reduction of flood hazards.

Benoit Bayou Flood Plain Management Study, April 1994

The objective of this study, which was commissioned by a host of local governmental agencies, was to identify flood hazard areas along Benoit Bayou. The findings from the study are used to help make land use decisions in the watershed of Benoit Bayou. Typical land use decisions dealt with in the report include: regulating flood plan use, controlling upland land uses, and taking steps to protect or remove existing properties to reduce flood losses.

Miscellaneous Drainage Studies

The Bossier City Engineer's office has several studies that deal with localized flooding in smaller areas. These studies are used to develop solutions and action plans for solving the drainage problems and to help the City Engineer's office to prevent future problems caused by additional development in these areas.

Utilities Goals, Objectives and Action Statements

The goals, objectives and subsequent actions respond directly to the issues raised by citizens who participated in the community meetings conducted as part of the planning process as well as members of the City and Parish staff. They also reflect the observations discovered through extended analysis of the water, wastewater and drainage conditions throughout the MPC Planning Area.

Utilities and infrastructure goals include:

- Provide safe, reliable utility services to adequately meet present and future residential, commercial and industrial demands.
- Develop a comprehensive flood and stormwater management program to eliminate or mitigate floodplain and localized flooding, stormwater quality issues, and bank erosion within the master plan study area.
- Provide environmentally sensitive, high quality service level, utility systems to adequately support future land use and development planning.
- Revitalize all aging and failing utilities infrastructure.

- Enhance existing utilities for maximum operating and maintenance efficiency.
- Assure high quality, low maintenance utility infrastructure that is in regulatory compliance.
- Improve efficiency and effectiveness of the Utilities Department in preparation for an expanded area of responsibility due to anticipated growth and development within the MPC area.

Goal 8.1: Provide safe, reliable utility services to adequately meet present and future residential, commercial and industrial demands.

Objective A: Secure and maintain reliable primary and alternative sources of water to assure an uninterrupted, safe water supply in case of drought or emergency situations.

Objective B: Improve water distribution system flow characteristics and overall system efficiency to lower required operating pressures, reduce operating/maintenance costs and increase disinfection capability.

Objective C: Increase water treatment plant capacity and upgrade treatment technology to satisfy increased future demands and more stringent water quality regulations.

Objective D: Increase water distribution system storage capacity to facilitate meeting high instantaneous peak demands and minimum fire flow requirements during periods of drought or emergency.

Objective E: Replace and upgrade sewer collection system components as necessary to improve flow capacity, minimize septic conditions and reduce operating/maintenance costs where overloading and poor flow characteristics dictate overall efficiency.

Objective F: Increase wastewater treatment plant capacity and upgrade treatment technology to satisfy increased future flows and more stringent discharge regulations.

Action 8.1.1: Provide increased security measures to safeguard against vandalism or terrorism of water source facilities at both the Reservoir Pumping Station and the Red River Pumping Station. Add pumping units and discharge header piping as necessary at both existing pumping stations to assure an adequate supply to the treatment plant from either location.

The Red River Pumping Station is slated for upgrade in the summer of 2002.

Action 8.1.2: Install new water lines to complete loops and connect water sub-systems at Shady Grove/Southgate Loop, Sun City/Golden Meadows Loop and Southern Gardens/Southgate Loop.

Action 8.1.3: Expand existing water treatment facilities by adding 10 million gallons/day (MGD) capacity to the existing 25 MGD plant.

Action 8.1.4: Acquire property, design and construct a new two million gallon (MG) elevated water storage tank on Kingston Road between Benton Road and Airline Drive in North Bossier.

Action 8.1.5: Complete a water system loop from Hospital Drive to Prestwick Circle in Greenacres Place Subdivision.

Action 8.1.6: Complete a water system loop by installing new water lines to connect the east and west ends of Viking Drive.

Action 8.1.7: Complete a water system loop on Village Lane to connect with the water line on Airline Drive.

Action 8.1.8: Complete a water system loop in River Bend Subdivision.

Action 8.1.9: Install a new transmission line down the Arthur Ray Teague Parkway from Old Minden Road to the Highway 71 South 2 MG elevated storage tank.

Action 8.1.10: Install a new water line from the water treatment plan (WTP) north on Benton Road to the new two MG elevated storage tank on Airline Drive.

Action 8.1.11: Install a new transmission line from the WTP south on Hamilton Road to Old Minden Road.

Action 8.1.12: Modify the collection system as necessary to increase carrying capacity and scouring velocities, reduce odor causing potential, improve flow efficiency while simultaneously reducing operating and maintenance costs.

Action 8.1.13: Add a SCADA system to provide system control, monitoring and data acquisition capabilities for treatment plant systems.

Action 8.1.14: Add sludge thickener to the waste disposal process at the wastewater treatment plants to increase capacity for solids removal rate from aeration basins.

Action 8.1.15: Add hoisting equipment at wastewater treatment plants to facilitate pumps replacement at the Northeast WWTP Return Sludge Pump Station.

Goal 8.2: Develop a comprehensive flood and stormwater management program to eliminate or mitigate floodplain and localized flooding, stormwater quality issues, and bank erosion within the master plan study area.

Objective A: Develop a comprehensive floodplain management program through the use of existing flood identification and mitigation studies, new FEMA Flood Insurance Rate Maps, and local governmental and professional expertise.

Objective B: Develop a comprehensive program to analyze, select, prioritize, and implement solutions to flooding and other related drainage problems identified in the South Bossier River Basin Study developed by the USDA NRCS in April, 1998, the Benoit Bayou Floodplain Management Study and other miscellaneous studies performed on smaller development areas.

Objective C. Provide for more consistent development of new residential, commercial and industrial areas through the development of drainage hydrologic and hydraulic design criteria manuals, best management practices manuals with standard details, and standardization of City and Parish requirements.

Replacement of failing ditch pavement should be a priority.

Objective D: Improve storm water quality standards and meet EPA mandated requirements for Phase II Storm Water NPDES Permits for small municipalities.

Action 8.2.1: Review, revise as necessary and implement the programs in the Draft Flood Hazard Mitigation Master Plan developed by AEGIS Innovation Solutions in conjunction with Bossier City and other local governmental authorities.

Action 8.2.2: Review flooding and related problems in the South Bossier River Basin Study, select desired problem solutions, prioritize, develop funding sources and implement the solutions.

Action 8.2.3: Review the Benoit Bayou Flood Plain Management Study, develop projects to address identified flooding problems, develop funding sources and implement the solutions to address the problems in this key development area. Benoit Circle Drainage Report developed by FBL Associates can be used for a specific project for Northland Estates Subdivision.

Action 8.2.4: Implement the drainage system improvements identified in the River Bend Drainage Analysis report developed by Owen and

White in June, 2001, to alleviate localized flooding problems in the River Bend subdivision.

Action 8.2.5: Have the Bossier City Engineer's office and appropriate Barksdale AFB personnel develop a working relationship concerning mutually beneficial drainage and floodplain conservation and improvement projects.

Action 8.2.6: Coordinate drainage hydrologic and hydraulic design and analysis criteria between Bossier City's and Bossier Parish's Engineering offices and develop design criteria manuals for use by engineers and developers for new development and substantial redevelopment areas. Manuals could also include situations where retention or detention ponds would be required.

Action 8.2.7: Develop recommended best management practices and details for residential, commercial and industrial areas. All implemented practices should receive approval of Bossier City or Parish Engineers before installation is allowed.

Action 8.2.8: Public education on wetland mitigation and conservation issues should be developed in order to help protect and preserve existing wetlands. A regional wetland banking program might be considered to help development of areas where wetland preservation cannot be accomplished because of an important public need like flood reduction.

Action 8.2.9: Review, amend as required, and adopt the new FEMA Flood Insurance Rate Maps for the Master Plan study area in order to have the most accurate and up-to-date flood level information to assist new development and flood mitigation programs.

Goal 8.3: Provide environmentally sensitive, high quality service level utility systems to adequately support future land use and development planning.

Objective A: Extend and upgrade existing utilities within the MPC area to adequately serve projected residential and commercial growth and infill development for the next twenty years.

Objective B: Provide utility services that attract potential commerce and industry to preferred zones and proposed facility locations that are compatible with land use plans.

Objective C: Upgrade existing utility infrastructure to overcome problems of system overloading from increased demand.

Action 8.3.1: Install new water and sanitary sewer systems in the following areas:

- along the proposed extension of Winfield Road from Stockwell Road to Swan Lake Road;
- from the Swan Lake Road intersection with Airline Drive east to Benton Road;
- along the proposed extension of Winfield Road from Swan Lake Road to Airline Drive;
- along the proposed extension of Wimple Road to Swan Lake Road;
- along proposed extension of Wimple Road from Airline Drive to Benton Road;
- along the Greenacres Drive extension from Airline Drive to Swan Lake Road;
- along the proposed extension of Sunflower Boulevard south and east to Barksdale Boulevard;
- along the proposed extension of Golden Meadows Drive west of Barksdale Boulevard and connecting to Sunflower Boulevard extension;
- along the proposed extension of Hope Street from Barksdale Boulevard west to connection with the Sunflower Boulevard extension; and,
- along Vanceville Lisbon and Bobby Byrd Roads from Benton Road to Airline Drive.

Action 8.3.2: Relocate water system lines to accommodate widening Barksdale Boulevard to a five-lane cross section.

Action 8.3.3: Extend the existing water line and sanitary sewer system along Swan Lake Road north and west to Airline Drive.

Action 8.3.4: Install a new water line from Swan Lake Road to connect the northeastern end of the Lakewood Subdivision water system.

Action 8.3.5: Install a new water line from Stonebridge to Swan Lake Road.

Goal 8.4: Revitalize all aging and failing utilities infrastructure.

Objective A: Protect and preserve existing equipment, piping systems and structures to extend the useful life span where cost effective.

Objective B: Replace aging sections of the water distribution system and sewer collection system to reduce high frequency maintenance and repairs.

Action 8.4.1: Sandblast, apply protective coating systems, repair welds and rehabilitate serviceable water and wastewater treatment plant equipment and lift stations.

Action 8.4.2: Replace water mains along Shed Road from Airline to Benton Road, on East Texas from Benton Road to Eatman Street, and on Benton Road from Kingston to Wemple Roads.

Action 8.4.3: Replace the water system in Coleman Park subdivision from Patricia to Murphy Street.

Action 8.4.4: Replace all cast iron piping with new polyvinyl chloride (PVC) or high density polyethylene (HDPE) piping systems.

Action 8.4.5: Replace all 2-inch diameter water mains with 4-inch minimum diameter PVC or HDPE piping as recommended by the American Water Works Association (AWWA).

Action 8.4.6: Replace severely corroded handrails at the Northeast WWTP.

Goal 8.5: Enhance existing utilities for maximum operating and maintenance efficiency.

Objective A: Provide means to facilitate isolation of water distribution system for repairs with minimal service interruption.

Objective B: Improve city vehicle and employee access and safety at city-owned facilities while maintaining security against trespassers.

Action 8.5.1: Add sectional valves in the water distribution system every 400-600 feet and at critical points within the existing system.

Action 8.5.2: Obtain additional easements, pave access roads, add security fences/gates and access hatches/ladders, where necessary, at city owned facilities such as sewer lift stations and raw water pumping stations.

Action 8.5.3: Add a SCADA system to provide monitoring and control for lift stations.

Goal 8.6: Assure high quality, low maintenance utility infrastructure that is in regulatory compliance.

Objective A: Facilitate quality control of new construction and rehabilitation/repair projects or maintenance tasks.

Objective B: Reduce inventory requirements for replacement parts and materials.

Objective C: Maintain the ability to comply with Federal and state regulations with regard to water quality standards and waste discharge requirements.

Action 8.6.1: Adopt a uniform building code and establish uniform standards and details that govern design, materials and methods for new construction and rehabilitation projects as well as for in-house maintenance and repair tasks.

Action 8.6.2: Require department head and supervisory staff input and review during project preliminary design development.

Action 8.6.3: Compile and publish a list of approved manufacturers and models for valves, hydrants, post indicators, pipe fittings, pumps, treatment process equipment, hoists, controls, and other items requiring routine maintenance to use as a guide for the purchase of replacement parts project bid specifications.

Action 8.6.4: Modify city ordinances to establish rules for pre-treatment, monitoring and control of commercial and industrial discharges into the sewer collection system.

Goal 8.7: Improve efficiency and effectiveness of the Utilities Department in preparation for an expanded area of responsibility due to anticipated growth and development within the MPC area.

Objective A: Monitor and control operation, maintenance and capital replacement costs.

Objective B: Raise the level of qualifications and competency for all supervisory and staff personnel.

Objective C: Minimize maintenance or repair crew response time and service disruption during repairs and emergencies.

Action 8.7.1: Schedule and perform preventative equipment maintenance, check operation and document service records in accordance with manufacturer's recommended procedures and performance criteria. Strict adherence to these practices will serve to avoid premature repairs or replacement. Replace worn, inefficient equipment that has reached its expected service life.

Action 8.7.2: Mandate applicable, specialized training, certification and continuing education for all department personnel. Cross train individuals and superintendents within the department to achieve manpower flexibility in the event of employee illness or attrition.

Action 8.7.3: Maintain crew sizes, supervision, tools, etc. that are adequate to perform maintenance and repairs as necessary.

Action 8.7.4: Improve methods of communication, correspondence and record keeping within the department to coordinate work orders, document maintenance records, expedite materials, report laboratory findings and avoid redundancy.

Existing Systems

Bossier City Water Sources

The Bossier City water supply comes from two intake locations on the Red River, the Bossier City reservoir facility and the Red River facility at the treatment plant. The primary source is the Bossier City reservoir, which is a 100-acre, 20 feet average depth, impoundment located on leased property adjacent to the Red River and situated north of I-220 approximately two miles north of the water treatment plant. Pumping facilities here include a river intake pump station utilized to pump raw water from the river into the reservoir and a 50 MGD raw water transmission station, which pumps water from the reservoir to the treatment plant.

The Red River pump station intake at the treatment plant, which is currently being rehabilitated, which will be on line by Fall 2002, will have the capacity to deliver raw water at a maximum rate of 20 million gallons per day directly to the water treatment plant. This facility will serve as the backup or supplemental raw water source.

Water Treatment

The Bossier City Water Treatment Plant (WTP) underwent a major expansion and improvement project completed in the summer of 2000. Plant treatment capacity was increased from 16 MGD to 25 MGD. Raw water total

Filter gallery at Water Treatment Plant.

pumping capacity from the Bossier City reservoir was increased to 25 MGD with six new pumps at the existing reservoir pump station. Other major improvements include an ozone disinfection system, eight new dual media filters with air/backwash system, a new 1.5 MGD clearwell, two new high service pumping stations, a new gravity thickener with sludge removal system and two (2) new belt filter presses.

Shown in **Figure 8.1, Red River Water Treatment Plant Schematic**, is the process of treating water drawn from the Red River. Generally, the process included pre-disinfection, clarification, primary disinfection, filtration, scouring, final disinfection, storage and pumping.

Water Distribution

The public water distribution system network for Bossier City, displayed in **Figure 8.2, Existing Water System**, is bounded on the west by the Red River and extends to the point of connection with the Benton storage tank in the north, Louisiana Downs to the east and Golden Meadows

subdivision to the south. The water system is connected to the Shreveport water system by a 20" line crossing the Red River over the Long-Allen Texas Street (Highway 80) bridge. This river crossing was implemented to provide a water supply sharing capability in the event of emergency or shortage in either city.

Water Storage

Finished water storage at the Bossier City water treatment plant consists of three underground concrete tank clearwells, for a total plant storage capacity of 4.5 million gallons (MG). Clearwells are connected by a transfer valve and treated water is pumped into the distribution system by two high service pump stations consisting of ten vertical turbine pumping units of 3000 gallons per minute (gpm) capacity each.

There are three elevated storage tanks in the Bossier City distribution system that provides a total storage capacity of 5.5 MG. The Airline Drive Tank has a capacity of 1.5 MG and the North East and Highway 171 South (Golden Meadows) Tanks have capacities of 2 MG each. Altitude valves at each tank provide automatic re-fill and overflow protection capabilities based on system pressure set points. Tank level transmitters on each tank facilitate continuous level monitoring at the WTP. All three elevated storage tanks have recently undergone lead abatement, structural repair, cleaning and re-painting procedures and are in excellent condition. In addition, they were upgraded to meet current OSHA access and FAA lighting requirements.

A summary of existing Bossier City water treatment and distribution system capacities is displayed in **Table 8.1, Water Treatment and Distribution**.

Table 8.1
Water Treatment and Distribution
City of Bossier City

Treatment and Distribution Facilities	Capacity
Water Treatment Plant	25 Million Gallons/Day
High Service Pumping	45.5 Million Gallons/Day
Clearwell Storage	4.5 Million Gallons
Elevated Tank Storage	5.5 Million Gallons
Total Length of Distribution System Lines	254 Miles

Source: City of Bossier City

Wastewater Treatment

The Bossier City Red River Wastewater Treatment Plant, which is approximately 25 years old, has a total treatment capacity

Airline Drive water tank.

of 8 million gallons per day (MGD) and serves the southern and eastern sections of Bossier City. The plant has recently undergone some limited equipment retrofit and an odor control improvements project.

The Bossier City Northeast Plant has a treatment capacity of 6 MGD and serves the northern and western sections. It

Clarifier and oxidation ditch at Red River Wastewater Treatment Plant.

has undergone recent capacity expansion of 4 MGD and addition of odor control features and equipment.

Both treatment plants utilize the extended aeration activated sludge process, which is an aerobic method of biological wastewater treatment. This process is based on the aeration of wastewater with flocculating biological growth, followed by separation of treated wastewater from this growth.

The flow through each plant is illustrated in **Figure 8.3, Red River Wastewater Treatment Plan Schematic**, and **Figure 8.4, Northeast Wastewater Treatment Plant**. The treatment process generally involves initial screening to remove debris, grit removal/separation, aeration/oxidation, final clarification, sludge settlement, final disinfection, effluent discharge, sludge treatment, chemical conditioning, and sterilization.

Wastewater Collection System

In order to control odors generated by the formation and emission of hydrogen sulfide (gas phase) into the atmosphere, Bossier City has placed several chemical feed stations in service at critical locations within the sewer collection system. These stations feed ferric sulfate into the wastewater stream, which combines with dissolved hydrogen sulfide (liquid phase) to form a compound that settles rapidly, but which can be re-suspended for easy removal at the treatment plant. Bossier City is currently using this chemical at five locations in the system for odor control, as well as at the Bossier City Water Treatment Plant for enhanced coagulation in the treatment units.

A recent odor control modifications and improvements project at both Bossier City wastewater plants will be completed in the Spring of 2002. This project will upgrade the treatment plants to include covers and chemical scrubber equipment to reduce the odors generated at the headworks of the plants. Also, mechanical barscreens have been added to increase the overall velocity of the incoming wastewater by improving the efficiency of the wastewater screening process. The influent wetwell bottom elevation at the NEWWTP was lowered by 10 feet to prevent surcharging in the 42-inch gravity influent line to the plant and thus increasing the velocity of flow into the wetwell.

Influent wetwell at the NEWWTP.

There are currently 87 sewer lift stations and 52.8 miles of force main located throughout the Bossier City collection system. Force main pipe sizes range in diameter from 2-inches to 24-inches and range in length from 100 feet to nearly 7 miles. These lift stations typically serve individual subdivisions, areas, districts, trailer parks, etc. or function as booster pump stations.

A summary of Bossier City wastewater treatment and collection system capacities is displayed in **Table 8.2, Wastewater Treatment and Collection**.

Table 8.2
Wastewater Treatment and Collection
City of Bossier City

Treatment and Collection Facilities	Capacity
Total Wastewater Treatment Capacity	14 Million Gallons/Day
Red River Treatment Plant Capacity	8 Million Gallons/Day
Northeast Treatment Plant Capacity	6 Million Gallons/Day
Sewer Lift Stations	87
Length of Force Mains	52.8 Miles
Longest Force Main	7 Miles
Length of Gravity Lines	207 Miles
Largest Gravity Line	42 Inches

Source: City of Bossier City

Displayed in **Figure 8.5, Existing Sewer System,** are the major lift stations in Bossier City, the location of the treatment plants, the dividing line between the two plants and other locations of community systems.

Manholes in sewer collection systems are typically located at junctions, changes of direction, and in long straight runs to provide convenient clean out access to gravity flow sewer piping. Most of the existing manholes are precast - concrete, however some of the manholes in the older sections of town are constructed of clay brick.

The Bossier City sewer collection system currently consists of a total of 206.7 miles of gravity line. Gravity lines range from 4-inches to 42-inches in diameter, with the largest being the Red River gravity interceptor which is located near the Arthur Ray Teague Parkway along the Red River. Newer sewer lines are constructed of PVC or ductile iron and older lines are constructed of clay tile, concrete, or cast iron.

Parish Utility Systems

Bossier Parish has numerous community, private and public water systems outside the city limits of Bossier City, which range in size from a few users to a few thousand customers. Rural parish water supply sources for independent community or private systems are primarily wells that tap the surface alluvial, Wilcox and Chicot formation aquifers. A few systems outside the city limits are being supplied either totally or partially by the Bossier City public owned water systems (POWS). The largest privately operated water system in the parish is Village Water Supply with approximately 2,600 service connections and 16 wells. Private and public water systems in Bossier Parish outside the city limits of Bossier City include the following:

1. Village Water Supply;
2. Belleview Water System;
3. South Bossier Water System;
4. Central Bossier Water System;
5. Red Chute Water System;
6. Cypress Black Bayou Water System;
7. East 80 Utilities;
8. The Town of Benton;
9. The Town of Haughton; and,
10. The Town of Plain Dealing.

Groundwater wells are the sole source of water for most of these systems except for the Town of Benton, East 80 Utilities and Cypress Black Bayou water systems, which purchase water from Bossier City. Red Chute purchases water from both Bossier City and Village Water Supply. Barksdale Air Force Base purchases water from the City of Shreveport via a 20-inch line across the Texas Street (Highway 80) bridge.

Red River at Arthur Ray Teague Boat Ramp.

Sewerage collection and treatment facilities for rural Bossier Parish outside the city limits typically consist of individual house septic tanks or community treatment systems. Many of the community water systems also maintain community sewer systems.

Drainage

Flooding has historically been a problem within the Bossier City-Parish MPC planning area. Prior to the creation of the levee system along the Red River, it was commonplace for the Red River to overrun its banks and flood the low areas within the study boundary after large rain events, which occurred upstream and during the wet parts of the year. Throughout its life, the river has also meandered throughout the Bossier flood plain valley. Prior to the removal of the Red River Raft, which obstructed the river, the river channel meandered through channels on both sides of the river. Two channel remnants of the river meandering within Bossier include the Flat River and the Red Chute Bayou. This effectively limited development of the area to high ground until the completion of the Red River Levee System in 1946. Since that time the river has not breached the levee.

Flooding has also occurred because of the configuration of the watershed runoff basin and the topography of Bossier Parish. The watershed has the shape of a banana, which runs from the southern edge of Arkansas to the Northern tip of the Red River Parish where Loggy Bayou discharges into the Red River. The watershed area encompasses over 1,138 square miles. The northern area of the watershed is hilly with relatively steep slopes, which flatten out approximately south of Benton. Because of this varied watershed topography, high peak flows that travel very fast occur at the upper end of the basin, which spread out and require wide floodplains when they hit the flat land. Areas of localized flooding due to undersized drainage inlets, pipes and ditches also occur in several locations in the urbanized regions of the study area.

The major waterways that drain the study area include Willow Chute Bayou, Benoit Bayou, Flat River, Red Chute Bayou, Fifi Bayou, Macks Bayou, as shown in **Figure 8.6, Existing Drainage**. In the urbanized areas of Bossier City, several manmade ditch and subsurface systems exist. All the flow from these tributaries and drainage systems flow to the southern portion of the watershed to Loggy Bayou, which eventually discharges into the Red River.

Details of the Master Plan

Future Inter-modal Transportation, Public, Industrial and Military Facilities

Shreveport-Bossier Port Facilities

When development occurs at the Port, the existing water system (with an extension of the distribution system) can be utilized for potable water purposes. Depending on the water quantity and quality needs of future industry at the port, several options can be evaluated including a new drinking water treatment plant, the use of treated wastewater from the Red River WTP and water from the Red River treated to less than potable water standards. Treated water requirements of up to two MGD at the Shreveport-Bossier Port could be accommodated by expanding the existing water treatment plant.

Barksdale Air Force Base

Barksdale Air Force Base is currently served by the City of Shreveport. There is a connection from the Bossier City system to the base for use in emergencies when service is disrupted from Shreveport. The importance of BAFB to national defense and the area economy make it imperative that Bossier City consider the impact of this facility in their planning process. The impact of the base on the distribution system is 2 MGD average day demand and 3.2 MGD max month demand. While Bossier City could currently supply the base with water during months of low demand, supplying the base with water during a dry summer would tax the current capacity of the WTP. Programmed expansion to the WTP could be implemented to accommodate the additional capacity during high demand periods.

I-69 corridor

Based on current information, I-69 may be a reality in 15 years, which would spur additional development along the corridor. Due to the physical distance from municipal treatment facilities and elevation constraints, utility requirements could be more practically met by private rural water distribution systems and individual or community wastewater collection and treatment systems. Another option to attract commercial and industrial activity would be to design and construct additional water and wastewater treatment facilities at locations more central to the proposed corridor activity.

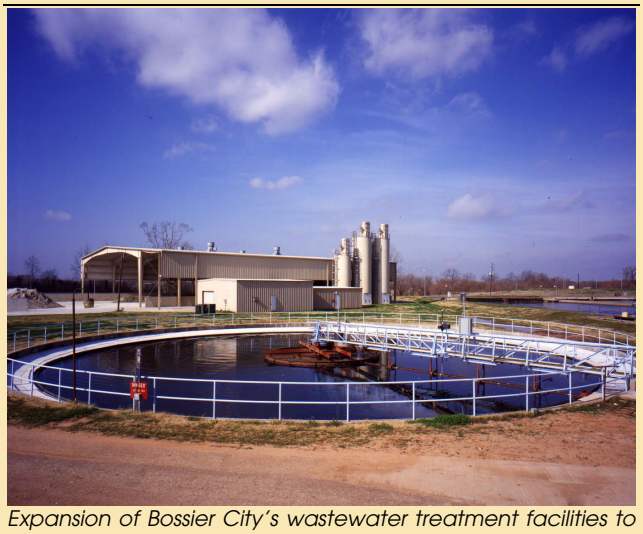
Regional Water/Wastewater System

There are several existing water systems within a 15-mile radius of the current water treatment plant as well as areas of Bossier Parish that get their water from individual private wells. As development occurs, the aquifers that provide water to these systems may become taxed and good quality water may diminish resulting in the need for a surface water supply or the purchasing of water from Bossier City. Based on the 2002 hydraulic analysis, developments east of Red Chute water system could not be directly fed by the Bossier City water system. A ground storage tank with pumps would be required to feed these systems due to the rapid change in elevation past Red Chute. Water systems within the City limits can be accommodated with the current system. Water systems to the south could be fed directly by the Bossier City system for a few miles, but would require a ground storage facility with pumps past a few miles from Highway 71. The Sligo Road water system will be fed through their current connection and ground storage tank.

Parish Sewer Districts

There is presently a concern about the need to extend sanitary sewer services into suburban areas of the parish. At present, the easternmost extent of the sewer collection system service is Louisiana Downs at the intersection of Stockwell Road and Highway 80. The establishment of a municipal wastewater treatment system in areas adjacent to the city limits would improve the potential to attract and maintain commercial and light industrial development. Subdivisions, communities and proposed urban villages would also benefit from a more efficient and environmentally acceptable method of wastewater disposal. It is not, however, practical to connect these outlying areas of the Parish to the existing Bossier City wastewater treatment system because of the distances

and additional treatment loading that would be involved. The concept of sewer district establishment for rural areas of the parish, however, is an option that parish government may want to consider. Funding mechanisms are available through the Environmental Protection Agency Office of Water.



Expansion of Bossier City's wastewater treatment facilities to serve outlying areas is not practical.

Industry within Bossier City

Bossier City currently has one industrial park within the City limits as well as several areas zoned for industrial use. Based on the 2010 and 2025 hydraulic analysis, the current system can accommodate small to medium industrial water users (50,000 to 150,000 gpd), within the existing industrial areas. If a large water user (1 MGD) is added to the Ruben E. White Industrial Park, the existing distribution system can accommodate the demand without any system upgrades.

Basis for Planning

There are very few areas remaining within the MPC planning area considered optimal for expansive land development. Most of the remaining vacant area is flood prone, environmentally sensitive or within the Barksdale Air Force Base AICUZ. Therefore, a substantial portion of planning for utilities involves upgrade measures to improve and increase the carrying capacity of water distribution and sewer collection systems in areas that are already developed or are under-developed.

Areas outside the current city limits that have been proposed for urban village development typically would require an extension of the existing utility systems. However, it may be necessary to replace and upgrade a portion of the existing system according to the additional system demand requirements. Improvements to upgrade the efficiency of existing utility systems by correcting deficiencies can, in certain instances, be done concurrently with improvements required to accommodate proposed future infill and expansion development demands.

Staff input and comments were obtained from interviews conducted with key personnel including the Bossier City Engineer, Northeast Wastewater Treatment Plant Superintendent, Red River Wastewater Treatment Plant Superintendent, Bossier Water Treatment Plant Superintendent, Sewer Collection System and Lift Stations Superintendent, Water Distributions Systems Superintendent and the Bossier Parish Engineer. The nature of questions and discussion during each interview dealt with the identification and assessment of problems inherent to the existing utility system infrastructure and with day-to-day operating and maintenance procedures. Present and short-term future needs along with other potential system improvements were discussed and classified as requiring further evaluation and review. Other issues discussed included staffing levels, personnel qualifications, employee education and training and safety compliance concerns. Concerns and issues from citizen responses that were recorded during public meetings were also incorporated into the issue statements section of this chapter.

Bossier City Water System Hydraulic Analysis

The Hydraulic Analysis and Master Plan for the Bossier City water system, dated April 2002, identified problem areas within the existing system and recommended corrective actions that would improve the overall hydraulic efficiency of the water distribution system. The future water facilities and services lines recommended through this study are displayed in **Figure 8.7, Future Water System**. The report findings and recommendations for capital improvements were based on hydraulic modeling analysis, population projections and usage data as described in the following paragraphs.

The purpose of a hydraulic model is to create a base map of the City's existing water distribution system in a computerized hydraulic model that can be manipulated to define and determine solutions for existing problem areas with regards to pressures, fire protection, storage, and excessive residence times. The model can also be utilized to predict the effect of future growth on storage, supply, and line sizing.

The basic model consists of a data collection phase and the design and calibration of a hydraulic model of the City's existing system based upon GIS information. The data collection phase included data from the water treatment plant, billing records, and water main maps on GIS (provided by the City). Billing records were utilized to determine an average day demand and allocation of demands at junction nodes on the water model. Records from the water plant, including average, minimum and maximum day demands and elevated tank information, were used to determine peaking factors for the hydraulic model. The GIS information was utilized to locate water lines and sizes and generate the model pipe network.

The hydraulic analysis consisted of generating the model network utilizing the GIS information, allocating demands based upon billing records, model calibration, extended period simulations utilizing peaking factors, water quality analysis, and running fire flow analyses. Once the basic model was complete, the work focused the model on a City wide basis to determine requirements to correct existing and future deficiencies based upon population projections, water quality and fire flows.

A Capital Improvement Plan (CIP) was developed utilizing the basic calibrated model population projections, water quality and fire flows to determine system upgrades to correct existing and future deficiencies. This included location and size of future elevated storage, line size upgrades and extensions, looping within the system, water disinfection booster stations and additional water supply necessary within the study period.

Findings of the 2002 Hydraulic Analysis were as follows:

- The projected population for Bossier City is expected to increase from 56,461 in the Year 2000 to 71,517 in the Year 2025. (The Area Profile Chapter of this plan projects a population increase of 10,000 in the year 2010 and another increase of 11,000 in the Year 2020 for the MPC planning area.)
- The projected average day/max month water use for Bossier City is expected to increase from 9.36/15.03 MGD in the Year 2000 to 14.25/22.8 MGD in the Year 2025.
- Fire flow storage of 5.5 MG in the existing distribution system is adequate through the Year 2025 based on a future population of 71,517 persons.
- Hydraulic analysis of the Year 2000 validates current problems of low pressures and low chlorine residuals experienced in the distribution system during high demand periods.
- Improvements recommended in future years improve the low pressure and low chlorine residual problems through the Year 2025.
- Additional water treatment capacity is required by the Year 2008.
- A new 2 MG elevated storage tank is required near Kingston Road by the Year 2005 or 2006.
- A 2 MGD water demand in the area of a future Bossier Parish port can be accommodated with the existing distribution system. Expansion of water treatment capacity would be required to meet this future demand. Demands larger than this would require a new treatment facility at the port site.
- The existing distribution system is capable of providing 1 MGD to an industry located in the Hazel Jones Industrial Park. Consideration should be given to the timing of a water treatment plant expansion.
- The existing distribution system is capable of providing 2 MGD to Barksdale Air Force Base (BAFB). An expansion of water treatment capacity would be required to safely provide this flow on a long-term basis.

Wastewater Treatment

Design capacity of wastewater treatment is based on per capita usage multiplied by the population of the area served. Per capita usage can be calculated by dividing actual plant flow records data by the population of the area served. From this, flows can be accurately projected

for the planning period to determine the necessity for expansion of treatment capacity.

The continued residential growth being experienced in northern Bossier City and its projected continuance in areas that include Lakewood, Bayou Bend, Cross Creek and other similar developments emphasize the anticipated impact on the NEWWTP. The growth trend for the southern portion of Bossier City, which is serviced by the RRWWTP, has the second largest projected change in population with continued growth and expansion in the Plantation Trace, River Bend, Sunflower Place, Golden Meadows, and Plantation Estates developments.

Displayed in **Table 8.3, Treatment Plan Design Flows**, is a tabulation of existing and projected design flows for both treatment plants in Million Gallons/Day (MGD). It is recommended that a new wastewater treatment system master plan including a sewer system evaluation survey be conducted to evaluate present conditions and determine future requirements in order to develop cost effective rehabilitation and expansion plans.

Table 8.3
Treatment Plant Design Flows
City of Bossier City

Capacity and Flows	Northeast WWTP		Red River WWTP	
	Year 2000	Year 2020	Year 2000	Year 2020
Average Daily Flow	2.00	5.11	6.24	5.56
Maximum Monthly Flow	2.60	6.64	7.95	7.22
Existing Capacity	6.00		8.00	

Source: WSA Consultant Team/Aillet, Fenner, Jolly & McClelland, Inc.

Housing

Housing, in and of itself, should be safe and decent. But as a cornerstone of quality of life in the Bossier City-Parish MPC Planning Area, issues associated with housing stretch well beyond the basics.

Available and affordable housing are key factors in the attractiveness of a community to new residents and businesses and to the quality of life of existing residents. The presence of an adequate, available housing stock is imperative to meet the needs of low, moderate, middle and upper income households. Market conditions will determine the quantity and price of new residential units as well as resale and rental housing. It is sometimes necessary for public agencies and non-profit organizations to take steps to encourage housing construction or rehabilitation or to assist lower-income buyers or tenants to find adequate, affordable shelter in the community.

Beyond livability and economic development concerns, local government also has an interest in the sustainability of new residential construction and the condition of the existing housing stock since market and assessed values directly impact the tax base and resulting revenue potential. Areas that are in need of revitalization and redevelopment should be the target of public and private funding and assistance efforts to preserve existing neighborhoods and prevent future decay and deterioration.

The purpose of the Housing element of the Bossier Comprehensive Land Use and Development Master Plan is to assess the existing housing inventory in the MPC Planning Area and identify anticipated housing needs and priorities. Each will be applied to both homeownership and rental opportunities. Based on this assessment, the Housing element identifies actions that are needed to advance more affordable housing, improve the condition of substandard housing, and ensure sound neighborhood environments where quality of life is preserved and property values are enhanced. The Housing element meshes well with other elements of the Plan as housing needs and neighborhood quality are a function of future land use and infrastructure planning, parks and recreation improvements, natural resource conservation, and transportation patterns.

Key Housing and Neighborhood Issues

Residents in Bossier wish to enjoy the privileges of quality housing and the positive impact that well designed neighborhoods can have on the image and attitude of the community. Issues voiced by citizens, organizations and officials indicate that addressing housing needs and demands is a primary component to a successful future. Stakeholder input resulted in the assembly of eight key issues relative to housing in the MPC Planning Area.

Quality, Affordable Housing

Construction of new homes is well underway in the Bossier area; however, many are not affordable to the majority of Bossier residents. Residents have raised concerns that housing at a price below $150,000 is not available nor being constructed.

While affordability is a relative term, it is an increasingly common issue for households at all levels of income. But it is an issue that is dependent upon a number of variables that go beyond the desire of a builder to make a profit.

Manufactured Housing

Manufactured housing continues to be one of the most affordable means

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of entering into homeownership. It is particularly appealing when other new homes under construction appear out of reach, as is the case in Bossier.

Unfortunately, manufactured housing has always carried a negative stigma for a variety of reasons. As in many communities nationwide, Bossier officials and residents are concerned about their area and housing market being overwhelmed by the proliferation of manufactured homes. A particular concern is the need to locate individual homes and larger manufactured home developments appropriately to avoid incompatibility with existing residential areas and potential effects on neighborhood integrity and property value. However, manufactured housing parks and subdivisions can be well-designed, positive assets of a community. Their counterpart, modular housing, when placed and designed appropriately, can maintain local character and blend discreetly into the community.

Neighborhood Revitalization

Established neighborhoods often lack the luster, size, design and amenities of new housing. However, many communities are beginning to understand that, in return, older neighborhoods offer intangibles such as history, culture, proximity, and a stronger sense of community.

In Bossier, some older communities have been well maintained while others require infill development, infrastructure improvements and further revitalization efforts. While the impacts of history, neglect and surrounding land uses may make recovery difficult for some neighborhoods, most offer an opportunity for renewal and long-term sustainability.

Affordable housing … is available, but somewhat scarce. … The cost of buying a house is fairly expensive. Prices for a modest two-bedroom home with 1,500 square feet usually begin around $85,000. There are high water tables in the area; hence, no basements are found in any of these homes. Houses in most locales require flood insurance, so be prepared financially for the added expense.

One-, two- and three-bedroom apartments are available, and most require six- to 12-month leases. Only a few are equipped with washer and dryer hookups. They range in price from $350 to $700 per month, plus utilities. Three-bedroom apartments are scarce, and four-bedroom apartments and houses are extremely rare.

– Barksdale Air Force Base Website concerning off-base housing issues

Appearance

Mark Twain once stated, "We take stock of a city like we take stock of a man. The clothes or appearance are the externals by which we judge." Housing impacts neighborhood appearance and creates an impression. Therefore, housing that appears to need upkeep can be an indication of a community in a state of disrepair and decline. On the other hand, freshly painted and well-maintained homes are indicative of a positive community with a promising future. Appearance is also correlated to community pride and ownership, perception, area property value, maintenance costs, and quality of life, where each of these factors can be influenced positively or negatively.

Comments by Bossier residents at public meetings indicated concerns about the appearance of the housing stock and area neighborhoods. Some suggested the need for additional ordinances or better enforcement of existing requirements. Others emphasized the need to improve basic cleanliness and property maintenance.

Efficient Growth

The manner in which an urban area grows impacts construction cost, maintenance cost, and ability to provide public amenities, access to services, transportation options, overall quality of life and sense of community. The automobile has enabled people to live farther from the urbanized area, in suburbs and beyond into rural areas. While many argue that this has resulted in increased personal quality of life, it has come with significant individual and community expense.

Newer development throughout the Bossier MPC Planning Area is characterized by the "leap frog" pattern that has become indicative of modern subdivision development. While sprawl was noted as an issue, more telling were issues raised that are symptomatic of sprawl. Examples include high housing cost, lack of accessible parks, lack of sidewalks, lack of destinations, inadequate water and sewer infrastructure, lack of different housing types, and risks associated with surrounding, conflicting development.

Building New Neighborhoods

A distinct difference exists between subdivisions and neighborhoods. While one is focused upon the provision of quality housing and infrastructure, the other additionally focuses on the provision of an appealing, interconnected community. Good neighborhoods share a number of key traits, including a pedestrian friendly environment, community focal points, access to services without the need to travel by automobile (although the option is certainly available), mixed housing, distinguishable community character, narrow residential streets, and community-oriented architecture.

Several comments by Bossier residents indicate a desire to improve their quality of life through better neighborhood design. Such design often corresponds to efficient growth and improved safety.

Life Cycle Housing

As time passes, household needs change. For example, a single person may get married, have children, and then watch children leave the nest to begin life on their own. Each major shift in lifestyle may impact housing need. A household with two children certainly requires more and different space than a home for empty nesters. Life-cycle housing anticipates the differing needs of households in transition by offering varied choices of housing within the same neighborhood. In this manner, a person can age in the same neighborhood or community without the need to move away to meet revised housing needs.

Bossier residents have indicated the need to improve life-cycle housing opportunities, particularly by including elderly housing and addressing their special needs.

Urban or Rural Character

The Bossier planning area encompasses Bossier City and surrounding areas of Bossier Parish. It is a broad mix that offers the opportunity to live within an urban area and enjoy the urban character or the chance to live in a more rural setting. Housing and neighborhood development generally reflect the surrounding character so that urban housing areas typically include sidewalks, streetlights, curbs, and an underground storm drainage system. Rural housing areas have fewer, if any, of these amenities.

New development that occurs in Bossier Parish outside of the incorporated city poses a dilemma for those attempting to accommodate area character but also prepare for future growth. New development may want to respect and take advantage of the surrounding rural character. At the same time, this area will only remain rural for a limited time before it becomes part of the urban fabric. Installation of appropriate urban features "up front" would mean less cost for "retrofitting" improvements in the future.

Flooding and Drainage

The Bossier MPC Planning Area offers limited potential for development without construction in an area at risk of flooding. As new construction continues, additional houses are at risk of flooding, yet the alternatives available when utilizing standard subdivision design are limited.

Numerous residents have indicated that flooding is a perpetual concern in Bossier. Recent flooding has avoided homes, but only slightly. Others indicate that drainage even outside of instances of flooding is a problem. In several subdivisions, streets act as secondary detention areas and are intentionally designed to flood when heavy rains create temporary flood events. While it may prove to be an inconvenience, it is often a viable alternative to structural flooding.

Despite potential for flooding, people remain attracted to homes within or near the floodplain that are adjacent to bayous and streams. Waterways and the associated floodplain offer a natural amenity that, when protected, can be utilized as greenspace to enhance visual character and increase neighborhood value.

Utilizing techniques such as cluster development and alternative site design can minimize the risk of flooding while maximizing conservation and quality of life.

Housing can be assessed on a number of levels, but most important, it must meet four "A's" within the community: Affordability, Adequacy, Availability, and Accessibility.

Housing Goals, Objectives and Action Statements

The summary of goals below and subsequent presentation of objectives and action statements for housing correspond directly to the key issues developed through the planning process. This process included stakeholder

Townhomes and small-lot patio home developments provide additional lifestyle and affordability options in a balanced housing market.

input at public meetings, data collection and analysis, interviews with community leaders who play a major role in housing and community development, and input by the MPAC. The goals are also designed to complement the goals and objectives of previous plans and studies and continuing housing policies for Bossier.

- Ensure that a **variety of housing options** are available to new and current residents of Bossier that are **affordable** at all income levels.
- Recognize **manufactured housing and modular housing as viable and affordable housing options** that are acceptable upon meeting requirements regarding appropriate location, appearance, function and quality.
- Maintain a **high standard for existing neighborhoods**, including ongoing maintenance, neighborhood revitalization, community leadership and development of amenities.
- Maintain an **attractive, quality housing stock** that promotes Bossier as a community with pride.
- Promote **sensible growth** that takes advantage of proximity to services and amenities and minimizes the strain on tax revenue.
- Create new residential development that offers the **appearance, amenities, comfort and resources** of a neighborhood or urban village.
- Design rural subdivisions as **urban villages** that respect the rural character of Bossier Parish yet meet future needs as the urban area grows.
- **Preserve flood prone areas and other natural resources to the extent practicable** through use of alternative development techniques, and design residential areas to minimize flooding problems and create amenities.

Quality, Affordable Housing

The community challenge to provide quality affordable housing is not unique to the Bossier MPC Planning Area. In fact, it permeates the entire Ark-La-Tex region. Therefore, the provision of quality affordable housing must be undertaken and evaluated as a process. Economic cycles will also impact the community's ability to achieve success. Housing must be a community effort with the partnership of all levels of government and private and non-profit resources.

Goal 9.1: Ensure that a variety of housing options are available to new and current residents of Bossier that are affordable at all income levels.

Objective A: Implement and promote a variety of forms of affordable housing throughout the Bossier planning area.

Objective B: Establish strategic partnerships with existing housing related organizations and promote development of new entities as necessary to further create affordable housing opportunities.

New developments inside the City have curb and gutter streets, sidewalks, and streetlights.

Objective C: Seek a variety of funding sources to promote affordable housing.

Objective D: Utilize new and existing programs to make housing affordable to households earning less than the median area household income.

Objective E: Reduce any local barriers to development of affordable housing.

Action 9.1.1: Increase the presence of quality apartment units in Bossier City and the portion of Bossier Parish within the planning area.

Action 9.1.2: Consider incorporating townhomes, duplexes, modular housing and garden homes as part of various residential development projects to diversify the housing stock and inject added affordable units into the market.

Action 9.1.3: Promote alternative site design to achieve affordable housing, including zero-lot line development, reduced setbacks, reduced street widths, reduced lot size, mixed use development, cluster housing, and increased density.

Action 9.1.4: Coordinate with the Community Development Department to determine organizations capable of becoming involved in development of affordable housing, including church organizations, Habitat for Humanity and other nonprofit institutions.

Action 9.1.5: Establish and maintain relationships with area builders and financial institutions to determine interest in assisting in development of affordable housing through programs that allow builders to share responsibility for creation of affordable housing and financial institutions to establish a revolving loan fund for pre-construction loans to area builders in development of affordable housing.

Action 9.1.6: Consider development of a HOME Investment Partnership Consortium with areas surrounding Bossier City, including Bossier Parish.

Action 9.1.7: Review the possibility of application for a Homeownership Zone from the Department of Housing and Urban Development.

Action 9.1.8: Aid in application for other funding sources for housing from the Department of Housing and Urban Development that serve specific households that historically require affordable housing, such as the elderly and persons with disabilities.

Action 9.1.9: Coordinate with local financial institutions to establish a down payment and closing cost assistance program for those households in need. Upon resolution of lead based paint requirements, Community Development Block Grant funds should be incorporated into this program for Bossier City.

Action 9.1.10: Develop a grant program for "self-help" rehabilitation of substandard housing utilizing private resources such as financial institutions and foundation funds. Upon resolution of lead based paint requirements, Community Development Block Grant funds should be used to supplement this program for Bossier City.

Action 9.1.11: Closely examine local regulations and the approval process to determine if either contributes substantial cost to housing projects.

Action 9.1.12: Establish an education and awareness program designed to inform persons with limited income about the various affordable housing options available throughout Bossier City.

Manufactured Housing

Given the current economics of new housing development and infill development, manufactured housing must be considered as an affordable alternative to traditional site-built construction. In the past, housing of this nature has been viewed by many as sub par and not up to standard building code regulations. However, changes in the manufactured housing industry and overall housing industry issues have dictated the necessity of this viable housing choice for many Bossier area residents.

Nonetheless, concerns about maintaining a balanced housing mix and ensuring residential compatibility and neighborhood integrity should be reflected in Bossier's long-term planning. The challenge is to capture the sentiment that manufactured housing is obviously needed and should be encouraged in appropriate locations while safeguarding established neighborhoods from adverse effects. Concerns about property devaluation and other impacts are sometimes more perception than reality, particularly when adequate zoning and development

standards are in place and enforced. But it is understandable that local residents are basing such concerns on the development quality they have previously witnessed in Bossier.

Goal 9.2: Recognize manufactured housing and modular housing as viable and affordable housing options that are acceptable upon meeting requirements regarding appropriate location, appearance, function and quality.

Objective A: Maintain standards for manufactured housing that are similar to those for other housing types, including site standards and design guidelines.

Objective B: Promote additional affordable housing options to ensure that manufactured housing is not the only quality affordable homeownership opportunity in the Bossier planning area.

Objective C: Encourage strategic placement of manufactured housing communities throughout the Bossier planning area based on appropriate zoning, location criteria, and development standards.

Manufactured home developments with limited site design standards currently exist within the MPC Planning Area, indicating opportunities to achieve even better quality.

Objective D: Encourage revitalization and increase standards for existing manufactured housing and mobile home communities.

Objective E: Educate the general public regarding the need for manufactured housing and dispel myths that create a negative image of manufactured housing communities.

Action 9.2.1: Require manufactured housing considered for placement in residential areas to meet design requirements standard for infill development regarding roof pitch, exterior materials, setbacks, proportion of structure (length, width and height), composition and location of front entry, site standards and other variables as a means of providing continuity in the neighborhood.

Action 9.2.2: Develop site design standards for manufactured housing communities that are similar in nature to subdivision requirements, including street and sidewalk requirements, setbacks, "lot" configuration, minimum yards, landscaping, parking, and other variables.

Action 9.2.3: Encourage development of manufactured housing communities as Planned Unit Developments with the option to encourage innovation in affordability and good site design that does not impede quality development.

Action 9.2.4: Require amenities for manufactured housing communities similar to those required of standard subdivisions, including parks, recreation areas, open spaces, and trails/sidewalks, community centers, and possibly schools, fire service and other variables.

Action 9.2.5: Encourage development of additional affordable housing options to provide alternatives outside of manufactured housing.

Action 9.2.6: Promote modular housing as a quality option that is more cost effective than Single Family Detached development, but does not necessarily suffer quality.

Action 9.2.7: Discourage aggregation and placement of all manufactured housing communities in a few limited locations.

Action 9.2.8: Permit development of manufactured housing communities throughout the Bossier planning area through development of specific zones or by PUD, if community requirements are met.

Action 9.2.9: Consider limiting proliferation of manufactured housing communities through an

annual cap on the number of units approved annually or the number of permits to be issued.

Action 9.2.10: Develop a manufactured housing-to-standard program that offers incentives to community owners for improvement of existing communities including reduced rate financing, public provision of infrastructure and a streamlined approval process.

Action 9.2.11: Coordinate with local lenders and manufactured housing builders/retailers to develop a home "upgrade" option that allows for purchase/trade-in of new manufactured housing to replace an existing mobile home or otherwise substandard manufactured home.

Action 9.2.12: Coordinate with manufactured housing associations to create materials dispelling myths and perceptions regarding this housing option.

Neighborhood Revitalization

As a whole, cities are composed of multiple neighborhood units of various sizes and complexity. Each has its own set of characteristics. Neighborhoods often have distinguishable boundaries, but some do not. As such, neighborhood revitalization is paramount to the progress of the entire Bossier MPC Planning Area. Efforts to improve neighborhoods through revitalization will result in stabilized/improved property values, pride, increased property investment and enhanced aesthetics. Each neighborhood revitalization effort, however, must be mindful not to "price out" existing residents.

Goal 9.3: Maintain a high standard for existing neighborhoods, including ongoing maintenance, neighborhood revitalization, community leadership and development of amenities.

Objective A: Ensure that quality neighborhoods are free of vacant lots, unsafe structures, and other potential health and safety risks.

Objective B: Promote strong and active neighborhood associations as a resource and an instrument for neighborhood revitalization.

Objective C: Encourage a variety of neighborhood revitalization programs managed by neighborhood organizations, private organizations or local government.

Objective D: Protect neighborhood character and condition through enforcement and improvement of related codes.

Objective E: Ensure that existing infrastructure and amenities for use within neighborhoods represents the quality that Bossier residents should expect and that they need.

Objective F: Maintain interconnection paths and visual corridors between neighborhoods and other destinations.

The rehabilitation efforts of one owner can spark a wave of reinvestment in a neighborhood.

Action 9.3.1: Examine and revise local health and building codes, as needed, to ensure that a streamlined process is in place to address unsafe or dilapidated structures and other potential health and safety risks, such as weeds, tires and heavy trash.

Action 9.3.2: Streamline the permit approval processes for builders and organizations that utilize existing vacant lots in a manner that compliments and improves the neighborhood.

Action 9.3.3: Consider the use of incentives to entice development to established neighborhoods, including tax deferral, fee waivers, and a variety of other methods.

Action 9.3.4: Consider alternative uses for area vacant lots, such as creation of a neighborhood park or a neighborhood commercial establishment in strategically appropriate areas.

Action 9.3.5: Utilize Community Development Block Grant funds to leverage other funds and to implement

projects and programs aiming to improve neighborhood conditions in areas of low or moderate income and in efforts to eliminate "slum and blight." Projects and programs may include infrastructure repair, park and recreational opportunity development/improvement, removal of unsafe structures, or a variety of client-specific programs.

Action 9.3.6: Assist in creation of various Community Development Corporations (CDCs) that, as nonprofit organizations, can implement neighborhood revitalization projects and programs. Consider the necessity of developing specialized CDCs such as a Community Housing Development Organization (CHDO) to best address housing issues.

Action 9.3.7: Engage participation in neighborhood improvement and revitalization efforts from entities such as churches, civic organizations, schools, and businesses through programs such as neighborhood clean-up, home improvement, and beautification.

Action 9.3.8: Seek out resources from community revitalization organizations and foundations such as the Local Initiatives Support Corporation (LISC).

Action 9.3.9: Enhance zoning, subdivision and/or building regulations to ensure respond to the special site design needs of infill housing and rehabilitation.

Action 9.3.10: Initiate neighborhood plans for the various existing residential areas throughout the Bossier planning area with priority to go to those neighborhoods that are most at risk of decline. In low and moderate income areas within Bossier City, these plans should be incorporated into the City's Consolidated Plan as Neighborhood Revitalization Strategies. In low and moderate income areas outside of Bossier City, Neighborhood Revitalization Strategies should be incorporated into the State's Consolidated Plan.

Action 9.3.11: Establish programs that local organizations can assist with that will improve the quality of life in neighborhoods, such as Crime Watch, neighborhood clean-up, assistance with code enforcement, programs for seniors and youth, and maintenance of public spaces and recreation areas.

Action 9.3.12: Examine code enforcement processes and regulations to ensure that enforcement is fair, expedient and utilized.

Action 9.3.13: Develop a neighborhood based Capital Improvements Plan that corresponds to area needs, the community-wide CIP, ability to obtain funding through the budget or other resources, and, if available, neighborhood plans.

Action 9.3.14: Incorporate sidewalks into all urban neighborhoods and repair those that impede pedestrian access.

Action 9.3.15: When possible, utilize natural areas, such as flood prone areas, abandoned railways or other means to establish a system of trails, streets and sidewalks that prevent neighborhoods from becoming isolated.

Timely and steady attention to identification, mitigation and/or removal of unsafe and dilapidated structures is needed to avoid general decline in neighborhoods at risk of losing their stability.

Appearance

Although not one of the "four A's" of affordable housing (affordability, adequacy, availability, and accessibility), appearance is no less an important factor for the entire housing stock. Appearance is correlated to community perception, property value, and attractiveness to potential buyers. Appearance of many new subdivisions is reinforced through the development and implementation of deed restrictions. Such community improvement or homeowners associations seek to maintain or improve the

"appearance" of their neighborhood. In older sections of Bossier City, the City's property standards and zoning ordinances enforce community appearance. Effective administration of these tools is critical to the sustainability of Bossier's housing stock.

Goal 9.4: Maintain an attractive, quality housing stock that promotes Bossier as a community with pride.

Objective A: Ensure design consistency in neighborhood development to maintain a sense of continuity.

Objective B: Enforce restrictions and regulations that protect property values, local quality of life as well as general health, welfare and safety.

Objective C: Develop policies that promote rehabilitation of existing structures and infill development in a manner that complements and enhances the surrounding residential area.

Action 9.4.1: Promote quality, infill housing that compliments the character of the surrounding neighborhood by working with local architects to provide context-related designs to be utilized by builders as well as nonprofit organizations such as Habitat for Humanity for construction and rehabilitation.

Action 9.4.2: Establish design guidelines that address issues such as materials, roof pitch, façade treatment, porches (if applicable), proportional dimensions, garage, and other elements necessary to ensure that new development and rehabilitation is consistent with the character of the area.

Action 9.4.3: Assist neighborhood organizations in development of deed restrictions and provide the training and support necessary for private enforcement.

Action 9.4.4: Educate homeowners, apartment owners and other interested parties in the importance of home maintenance and its impact upon community quality of life, as well as property value.

Efficient Growth

In general, growth is good for the Bossier MPC Planning Area. In some situations, growth may adversely impact other goals for the community. Inefficient growth patterns, often referred to as sprawl, actually cost more by contributing to an overextended infrastructure. Efficient growth policies call for infill development where streets and other necessary infrastructure are already in place. Efficient growth also recognizes that some land uses should be reserved for the long term, such as agriculture, open space and forest land.

Goal 9.5: Promote sensible growth that takes advantage of proximity to services and amenities, minimizes the strain on tax revenue, and promotes interconnection.

Objective A: Locate neighborhoods within proximity to other residential areas and non-residential uses with ample opportunity for interconnection and interaction.

Objective B: Encourage residential development to be located within proximity to existing services and resources as a means of reducing construction and development costs, as well as long-term cost to the community.

Action 9.5.1: Avoid separation of residential areas through gated developments. Adjacent residential developments should be adequately linked with transportation arteries and pedestrian connections to encourage interaction and neighborhood mobility.

Action 9.5.2: Provide incentives to developers willing to develop adjacent to existing urban areas and to create points of interconnectivity, including streets, sidewalks, green spaces and paths.

Action 9.5.3: Determine acceptable levels of service for all public services and facilities and make them a consideration in approval of new development to ensure that water, wastewater, law enforcement, fire protection, emergency medical service, trash disposal, and recreational opportunities are adequately available.

Neighborhood Building

The "neighborhood building" concept recognizes that when new development occurs it should be multidimensional. That is, housing developments are often one dimensional in nature, offering little opportunity for the inclusion of complementary commercial development or other amenities. This is one way in which a "subdivision" is different from a "neighborhood." Neighborhoods are

more often associated with urban areas, but their characteristics can be readily duplicated in suburban settings.

Goal 9.6: Create new residential development that offers the appearance, amenities, comfort and resources of a neighborhood or urban village.

Objective A: New and existing residential development should be diverse and "walkable" including a variety of experiences that are accessible within ten minutes of home without an automobile.

Objective B: Incorporate a mix of uses into neighborhood design to provide a series of destinations and to add dynamic content to residential development.

Objective C: Ensure that adequate, affordable, quality housing is available for all ages and types of households, and promote the inclusion of a variety of housing types within new and existing residential development.

Objective D: Ensure that neighborhoods are identifiable through a strong focus and well defined edges and adequately protected from negative impacts.

Action 9.6.1: Strategically mix uses, including limited neighborhood commercial development as well as major focal points such as schools, churches, parks, open spaces, day care, post office, emergency service, and allow for each to be interconnected by pedestrian friendly corridors.

Action 9.6.2: Consider increasing residential density, particularly in parts of the neighborhood that are near gathering points (e.g. neighborhood commercial activity centers, major parks and schools) and near primary entry points into the area.

Action 9.6.3: Consider increasing residential density as a means to preserve unique physical or cultural characteristics of an area, create green space, improve infrastructure efficiency, and increase housing affordability.

Action 9.6.4: Utilize planned unit development provisions to encourage innovative and imaginative site design that minimizes adverse impacts on adjacent properties.

Action 9.6.5: Permit secondary dwellings with appropriate restrictions such as above-garage apartments and "granny flats" in all residential zoning districts by right to improve diversity, affordability and efficiency of area neighborhoods.

Action 9.6.6: Consider the pedestrian experience at the same level or higher than that provided to automobile traffic.

Action 9.6.7: Incorporate bus service into each neighborhood as a resource for travel between major destinations throughout the Bossier planning area.

Action 9.6.8: Encourage gateways into the various residential areas and edges that are obvious, but do not inhibit interaction.

Central green spaces and tracts reserved for recreation and informal gatherings provide a clear focal point in an effectively designed neighborhood, such as this example in Greenacres Place in north Bossier.

Action 9.6.9: Require parks, schools, churches, neighborhood centers, or other options as means of creating a community focal point. Consider appropriate zoning for these public and institutional uses.

Action 9.6.10: Residential areas should be appropriately buffered and screened from primary streets and adjacent commercial, office and community facility uses. Residential areas should not be next to industrial areas.

Action 9.6.11: Neighborhood retail and service uses should be located at intersections of arterial or collector streets or at the edge of logical

neighborhood areas unless appropriately placed within a planned development.

Urban or Rural Character

Areas of rapid suburban development, particularly beyond the corporate limits of Bossier City, represent challenges for the entire MPC Planning Area. Urbanization is generally an unending process. While all new development occurring outside the incorporated city should not necessarily be required to meet the entire gamut of urban-style standards for subdivision regulation, provisions should be in place to ensure infrastructure up to reasonable urban standards through private mechanisms.

Goal 9.7: Design rural subdivisions to respect the rural character of Bossier Parish yet meet future needs as the urban area grows.

Objective A: Encourage development that maintains the rural character of Bossier Parish through design and development guidelines.

Objective B: Ensure that rural development meets standards for urban development, including curbs, gutters, sidewalks, street lights, street width, and covered storm drainage or provides the resources necessary to cover costs of bringing the development to standard at a later date.

Action 9.7.1: Discourage "strip" residential development to promote quality design and maintain rural character.

Action 9.7.2: Encourage rural development to include open space to maintain and enhance the theme of rural character.

Action 9.7.3: Provide incentives to encourage development contiguous with existing urban development in order to minimize disturbance of rural character and to maximize efficiency of existing services.

Action 9.7.4: Minimize the amount of space required for rural development by utilizing village or cluster site design.

Flooding and Drainage

Flooding is a natural occurrence that is often cyclical in nature. Drainage improvements become necessary to mitigate the impact of ongoing development in a watershed. Historically, most development recognized flooding potential and located dwellings at a safe proximity to the hazard. However, as the community continues to expand, much of the desirable land is no longer available. New development patterns must take into account the ramifications of creating too much impervious surface and allocate additional open space, utilize stormwater retention/detention techniques, and minimize the amount of fill and contouring during construction.

Rapid development of new homes in the Stockwell Place area, set apart from retail shopping or services, is placing a strain on narrow two-lane roads such as this stretch of Stockwell Road in which houses front directly on the main access route to the area, resulting in a series of driveways along this increasingly busy road.

Goal 9.8: Preserve flood prone areas and other natural resources to the extent practicable through use of alternative development techniques, and design residential areas to minimize flooding problems and create amenities.

Objective A: Protect the relationship between Bossier and its many waterways and utilize it as a marketing amenity for development.

Objective B: Discourage development in flood prone areas, to the extent practical, for purposes of safety and property value.

Objective C: Incorporate alternative design techniques into residential areas where flood prone areas can be protected and marketed.

Action 9.8.1: Establish a land trust that can be charged with acquiring and managing sensitive lands throughout Bossier City and Bossier Parish with particular emphasis on rural and flood prone areas.

Action 9.8.2: Encourage acquisition of development rights within the regulatory floodway and floodplain or the use of a nonprofit trust to preserve and enhance these sensitive areas of Bossier.

Action 9.8.3: Create an option to utilize cluster residential development as a means of reducing lot size, increasing open space and preserving flood prone areas.

Action 9.8.4: Establish an areawide map that indicates primary conservation areas to be protected during subdivision design.

Action 9.8.5: Determine criteria for secondary conservation areas, conservation easements and concept plan approval.

Action 9.8.6: Revise ordinances as needed to allow for uncommon lot design in appropriate circumstances, including "flag" lots.

Much of developed Bossier is within or near flood plain areas, but development immediately adjacent to drainage ways is particularly at risk as areawide urbanization continues.

Previous Plans and Policies

Previous available plans and studies that took a more focused approach toward housing and neighborhood quality for the planning area were reviewed and considered in the development of this Master Plan. Ordinances relevant to housing development and neighborhood protection also were considered. The relevant plans and ordinances included:

- *Bossier City Consolidated Plan, 2000-2004, and Annual Action Plan* – With regard to housing issues, the Bossier City Consolidated Plan is the guiding document. The effective plan covers the period for 2000-2004. As a prerequisite for receiving funding allocations from the US Department of Housing & Urban Development (HUD), the Consolidated Plan must be updated every five years. The major topics addressed include housing, homelessness, special populations, lead-based paint, barriers to affordable housing, fair housing, anti-poverty efforts, and community development. An annual Action Plan also accompanies the plan. Bossier City's current Action Plan utilizes nearly $750,000 toward housing rehabilitation, public works, public service, and administration and planning objectives.
- *Subdivision Regulations* – The Subdivision Regulations, adopted in 1975, govern the division of property, primarily for residential purposes within the MPC Planning Area.
- *Zoning Ordinance* – Both the City and Parish adopted the effective Bossier City-Parish MPC Zoning Ordinance in 1978. Significant revisions to both the Subdivision Regulations and Zoning Ordinance will accompany this comprehensive planning effort through the drafting of a new Unified Development Ordinance.

Current Housing Outlook

Status of Housing Data

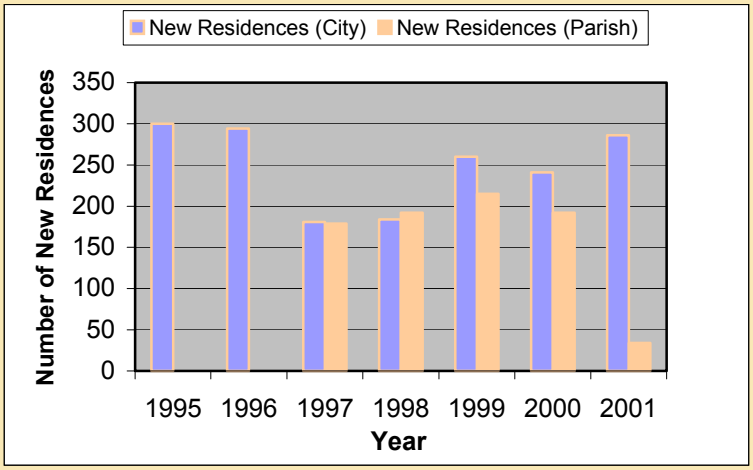
This element of the Bossier Comprehensive Land Use and Development Master Plan was prepared as various Census 2000 data was being released. Like any other planning effort, the best available data was gathered and utilized. At this point, only Summary Files 1 and 2 have been released by the Census Bureau. Data that reflects more specific issues associated with housing characteristics is due for release later in 2002 in Summary File 3. Issues of interest in SF3 are the number of housing units by type, and median values and rents. Analysis of this data would determine more definitively the sufficiency or deficiency of housing by type and affordability.

Existing Conditions and Trends

While economic activity in the late 1980s and early 1990s was at a near standstill, subsequent years have seen strong growth trends and consequently, an explosion in new house construction. Some of the activity has occurred in central Bossier City, however, most has occurred in suburban areas in Bossier City and the unincorporated areas of the MPC Planning Area.

In 2000, Bossier City had a total of 23,026 housing units compared to 21,815 housing units in 1990. This represents an increase of 1,211 units. Bossier Parish, as a whole, had a total of 40,286 units in 2000 and 34,994 in 1990, adding 5,292 units during the decade. **Figure 9.1 - Total Housing Units Per Census Block** illustrates the distribution of residential dwellings across the MPC Planning Area.

Figure 9.2
New Housing Starts



Source: Bossier City and Bossier Parish permitting data

Significant subdivision development was undertaken throughout the 1990s. There are 19 active subdivisions in Bossier City and another 22 in the unincorporated portion of the MPC Planning Area. The size of subdivisions inside the corporate limits varies widely. Windsor Place has 22 possible units, and there are 887 possible units in Golden Meadows. The average number of units per subdivision is 254. Moreover, based on records maintained through 2000 by the MPC, these subdivisions are 85.9 percent built out. Many of the subdivisions developed outside the city are much smaller, with an average of 111 units per subdivision. The number of units ranges from 13 in Bayou Point to 698 in Dogwood Park. Building activity very similar however, with subdivisions outside the city being 84.3 percent built out.

Figure 9.2 - New Housing Starts illustrates the number of new residences in Bossier City since 1995. For the period shown, the peak was in 1995 with 300 new homes. Much of this boom is likely attributed to the surge of employment generated by the arrival of gaming activities along the Red River. Home construction slowed significantly in 1997, but rebounded in 1999. Statistics just for unincorporated areas of the MPC Planning Area are unavailable; however, analysis of data back to 1997 for all of Bossier Parish reveals similar trends (with incomplete information for 2001).

Table 9.1 - Comparison of Occupancy Status and Tenure, based on data reported by the US Bureau of the Census, shows the percent of occupied housing units and percent of owner occupied housing units respectively relative to comparable communities in Louisiana. Occupied housing increased in Bossier City from 87.2 percent of all available units in 1990 to 92.1 percent in 2000.

Table 9.1
Comparison of Occupancy Status and Tenure

Area	Percent Occupancy	Percent Owner Occupied
Louisiana	89.7%	67.9%
Alexandria	90.0%	57.4%
Bossier City	**92.1%**	**60.0%**
Bossier Parish	**90.9%**	**69.5%**
Lake Charles	89.0%	57.6%
Monroe	91.3%	49.6%
Shreveport	90.6%	59.0%

Source: US Bureau of the Census

Figure 9.3 - Percent of Vacant Housing illustrates concentrations of unoccupied housing within the MPC Planning Area. The strong economy and expansion at Barksdale AFB have contributed to the decrease in vacant housing in the area. The extent of owner occupied housing also increased from 57.4 percent of all housing units in 1990 to 60.0 percent in 2000.

Figure 9.4 - Owner-Occupied Housing displays the geographic variation in owner-occupancy rates across the MPC Planning Area by census block group. The higher rates are associated with the suburban and rural areas of the Planning Area, while the lowest rates are concentrated in central Bossier City. This pattern is also reflected in **Figure 9.5 - Percent of Renter Occupied Housing**, with rent-paying households most prevalent in central Bossier City.

Bossier Parish as a whole has seen similar trends. Occupied housing units in the Parish increased from 87.8 percent in 1990 to 90.9 percent in 2000. Owner occupancy increased from 66.7 percent to 69.5 percent in 2000.

Cost and Affordability

Affordability is a constant issue of debate. For many, the question is, "Affordable to whom?" The household earning $30,000 will define "affordable" quite differently from the household that earns $120,000 in a year. Nevertheless, each is looking for housing that is affordable.

When determining affordability, the US Department of Housing and Urban Development (HUD) suggests that the home be one in which the homeowner or renter pays no more than 30 percent of gross household income toward housing costs. To be a true measure of affordability, housing cost must be based upon more than the simple cost of a home mortgage or rent. Housing costs must include all anticipated payments related to the home, such as taxes, insurance, utilities, phone service, and association dues. While these items may not be considered raw cost, they are necessities that are directly associated to housing.

Table 9.2
Housing Affordability by Income, 2000
For Shreveport-Bossier MSA

Percent of Median*	Household Income	Affordable Home Payment
180%	$57,875	$1,447
150%	$48,230	$1,206
120%	$38,584	$965
100%	$32,153	$804
80%	$25,722	$643
50%	$16,077	$402
30%	$9,646	$241

** Median income available through Greater Shreveport Chamber of Commerce*

Source: Wilbur Smith Associates

In the Shreveport-Bossier Metropolitan Statistical Area, the median household income in 2000 was $32,153. For housing to be considered affordable to a family earning the median household income, housing costs could not exceed $804 in a month. As noted in **Table 9.2 - Housing Affordability by Income, 2000**, a family earning 180 percent of the median could pay slightly more than $1,400 per month and still consider housing costs to be affordable. On the other hand, families earning only 30 percent of the median household income can afford only $241 in monthly housing-related expenses.

A number of factors impact housing affordability:

The Cost of Construction or Renovation. Housing price is largely based upon the cost of labor and materials necessary to construct or renovate a housing unit. People are seeking larger homes that require more space, more time to build and more materials. The price of materials and labor also impacts cost. If lumber prices increase, the cost is passed on to the potential buyer.

Likewise, the cost of housing increases as the number of amenities increases. Many of today's homes include items that were either not available or options only decades ago. Units that once included only two bedrooms are now expected to include three or four bedrooms and at least one additional bathroom. Kitchens often include a walk-in pantry. Garage size has increased to accommodate two (or even more) vehicles, instead of one.

The Market. Standard procedure for homebuilders is to construct homes in a price range that can produce a balance between highest margin for profit and volume of homes that can be sold.

Housing units can be built for more or less than the general area of balance but the builder increases risk. A homebuilder may choose to construct custom homes for high-income residents. The margin for profit will increase, but the number of units requested will also decrease. Additionally, if the economy sours, high-end housing is generally the first to slow. On the other hand, housing constructed below the balance provides reduced profit and does not always guarantee a high volume as compensation. Thus, the builder that chooses to construct housing below the balance will likely earn less profit without added incentives.

Land. Realtors and real estate investors often say that the value of land is primarily based upon three items - location, location and location. The same applies in consideration of housing affordability. Land in some areas

will be more cost prohibitive than in others. For example, land in urban areas tends to be more expensive than rural areas. Land in declining areas may be cheaper to acquire but costly to assemble.

Many newer subdivisions are constructed outside of the urban area because the cost of land is more reasonable. A portion of that reduction in cost is generally passed on to the buyer. On the other hand, a common complaint of residents that live outside the urban area is lack of amenities such as parks, open space, community facilities, day care facilities, or schools within walking distance. Once additional land is acquired to provide for these elements, the costs of development may well meet or exceed the cost associated with urban development.

What People Want

Recently, the National Home Builders Association (NHBA) conducted an extensive survey and published "Housing: Facts, Figures and Trends." The report focused on the housing characteristics that today's potential homeowners desire. Analysis of the survey results enables comparisons to the locally available and anticipated housing stock. Among the features listed:

- *Larger homes with "lots of space"*
- *"Upscale" amenities, such as higher ceilings or an island kitchen*
- *Outdoor amenities such as "a front porch, deck or patio"*
- *Laundry room and dining room*
- *Approximately 2,000 square feet of space*
- *Three or four bedrooms*
- *Two car garage*
- *Kitchen amenities such as a walk-in pantry*
- *Bathroom amenities such as a linen closet*
- *More storage space*
- *Neighborhood amenities such as parks and trails*

The features described by the NHBA seem to revolve around the single family-housing archetype. This housing option is certainly not the only one available to Bossier residents, but it remains the most demanded form of housing.

Financing. Development of housing requires significant investment. Like most investment ventures, capital is most accessible when the product proposed follows conventional market practices. Because affordable housing projects have a tendency to provide less profit and fewer margins for error, they are sometimes considered to be "risky" by lenders. While this may not keep a project from being funded, it may result in increased rates of interest, shorter loan life or added requirements. In each case, the cost is passed on to the buyer.

Incentives. Market forces can often add to the cost of housing. In those cases, government and nonprofit organizations can introduce incentives that make development of affordable housing a more viable option. Incentives come in a number of forms and are truly limited only by regulation and innovation of local organizations. Typical incentives can include acquisition and assembly of land, streamlined development review processes, reduced fee or bond requirements, provision of infrastructure, "buy-down" programs that utilize local funds to cover an amount of construction costs, loan guarantee, rental assistance, and down payment assistance for homebuyers.

Amenities. As previously discussed, housing demands today are substantially different than in past decades. Residents have come to realize that amenities play a very large role in the quality of life they can expect to experience in a community. Parks, recreation areas, open spaces, community centers, swimming pools, tennis courts and connecting sidewalks are features that should be common.

Each of these, plus other amenities, comes with a price tag and diminishes affordability. Ironically, individuals that live in manufactured housing communities, apartment complexes and other types of affordable housing tend to have fewer amenities, but these are the areas with the most need.

Regulations. Regulation is designed to increase safety or ensure that other objectives of the community are met. However, added regulation often equates to added cost of construction, either through direct costs or delays ("time is money").

Fees and Dues. Fees are commonplace in housing. Utility service generally requires a service fee. Financial institutions often add processing fees to the mortgage preparation process. Homeowners associations assess dues to cover expenses of managing the neighborhood. While many of these fees are fairly minimal compared to other housing costs, each detracts from affordability.

A Special Concern in Older Housing

Since 1978, lead based paint has been restricted from residential use. Its hazards and risks to children and women of childbearing age have become well documented in recent years. However, significant risks still remain in a large portion of the existing housing stock. Moreover, the hazard is concentrated in older, inner-city homes that tend to be owned/occupied by a lower income demographic. Gaps exist in education and the ability to properly mitigate the lead hazard.

According to the Bossier City Consolidated Plan, over 10,000 houses were built in the community prior to 1978 and may contain hazardous levels of lead-based paint. Stricter regulation of lead abatement in housing rehabilitation projects has detracted from local efforts to mitigate lead through Community Development programs. Most communities have found these regulations to be cost prohibitive and are awaiting further guidance from HUD.

Housing Programs

Federal Programs

Housing has been an issue with the Federal government since the 1920s. Today a significant number of homes are purchased with assistance from the Federal Housing Administration. While public housing has often been criticized, it has provided a service to those that might otherwise be homeless. While these are two of the more recognizable programs, HUD sponsors numerous others that may prove beneficial to both Bossier City and Bossier Parish.

- *HOME Investment Partnership.* HOME represents the single most significant housing related grant available through the federal government. The grant is based upon a formula and allocated in a fashion similar to the Community Development Block Grant currently received by Bossier City. While neither the City nor Parish are currently eligible for funds, discussion among parties has included an eligible "consortium" of communities that could share funds. HOME funds are available for to provide a variety of housing measures to those in need, including downpayment and closing cost assistance, homebuyer education (under specific circumstances), pre-construction loans, rental assistance, and rehabilitation funds.
- *Section 202 Supportive Housing for the Elderly.* Designed to assist very low income persons that are 62 years or over, Section 202 provides rental assistance that can be applied to multifamily construction. In addition to rental assistance, Section 202 funds can be used for initial project funds that do not require repayment as long as the structure continues to provide reduced rent for the elderly (at minimum 40 years).
- *Section 811 Supportive Housing for the Disabled.* Similar to Section 202, Section 811 meets the special needs of the disabled by allowing rental assistance for multifamily structures. Capital advances are permitted in the same fashion as Section 202.
- *Youthbuild.* This program is designed to be multifunctional. While the primary goal is to provide at-risk youth with professional and social skills, it also results in development/rehabilitation of affordable housing. Through youthbuild, young adults are trained in marketable construction and repair skills that are then used to spur community revitalization.
- *Weed and Seed.* Developed by the Department of Justice as a means of eradicating drug abuse, gang activity and other criminal elements within a neighborhood, this program has proven to be equally effective in assisting in community empowerment and revitalization efforts. While the amount of funds available for assistance is generally small, it can be used for demolition of dilapidated or drug/gang infested housing as part of "weeding out" opportunities for criminal mischief.

State of Louisiana Programs

The Louisiana Housing Finance Agency (www.lhfa.state.la.us) serves as a conduit for all the various Federal and State housing initiatives, such as

Assisted Program Loans, Low Rate Program loans, and HOME Assisted Program loans.

- *Assisted Program Loans.* Available for first-time homebuyers whose annual income does not exceed 115 percent of the median income, adjusted for family size, in Bossier Parish. The program will grant up to four percent of the mortgage amount to the borrower to assist in down payment and closing cost requirements. The effective interest rate for this program is 7.09 percent.
- *Low Rate Program Loans.* Available for first-time homebuyers who meet the same criteria as for the Assisted Program Loans. The effective interest rate for this program is 6.09 percent.
- *HOME Assisted Program Loans.* Provides assistance to homebuyers whose annual income does not exceed 80 percent of the median income, adjusted for family size, in Bossier Parish. A borrower match is required not to exceed $1,500.
- *Low-Income Housing Tax Credit Program.* This program is the primary means of directing private capital towards the creation of affordable rental housing. Developers of low-income rental housing use the tax credit to offset a portion of their federal tax liability in exchange for the production of affordable rental units. To qualify for the tax credit, either 20 percent or more of the project's units must be rent-restricted and occupied by individuals whose income is 50 percent or less of the median family income; or, 40 percent or more of the units must be rent-restricted and occupied by individuals whose income is 60 percent or less of the median family income.

Potential Local Housing and Community Development Programs

The Bossier City Community Development Department utilizes Community Development Block Grant funds annually received from the Department of Housing and Community Development as a means to assist in various housing programs. While these programs are only available within the municipal limits of Bossier City, similar programs can be developed utilizing private funds or by competing for statewide CDBG funds for the remainder of the MPC planning area. Recently, funds for housing related programs have slowed as Bossier City, like all entitlement communities across the country, attempts to grapple with expansive and costly changes in Lead Based Paint regulations.

CDBG Fix It Program. This program provides a forgivable loan that allows residents to repair items that will improve the energy efficiency of the home or maintain an adequate roof system. Bossier City sets a maximum amount of funds available for each home ($7,500 in 2000)

Owner Occupied Housing Rehabilitation Program. Also provided in the form of a forgivable loan, assistance through this program allows for rehabilitation of homes of individuals with limited incomes or special needs. Homes that are rehabilitated through this program are required to meet Housing Quality Standards, as well as local building codes. Bossier City sets a maximum amount of funds available for each home ($22,500 in 2000).

Code Enforcement. While not providing new housing, the Code Enforcement program funds a position for the purpose of ensuring that "slum/blighted areas" of the city are maintained in accordance with local codes.

Paint Your Heart Out. This program aids in minor rehabilitation of homes for the elderly and persons with disabilities. The focus is to paint homes and therefore improve the living condition of the recipient, as well as the visual character and property value of the surrounding area.

Bossier City Public Housing

The Housing Authority of Bossier City (HABC) owns and/or manages a total of 921 public housing units in the community, including:

- 437 low-income units;
- 180 Section 8 housing units; and,
- 304 low- to moderate-income housing units.

Of the total, 130 units are for elderly and handicapped persons. The HABC has cited "high" priority need levels for public housing modernization, safety / crime prevention / drug elimination, and resident services / family self-sufficiency.

Homeownership Assistance

Various forms of homeowner counseling is available to prospective homebuyers and existing homeowners seeking advice. Although each of the agencies is

located in Shreveport, their services are available to Bossier Parish residents as well. They include:

- New Shreveport Community Housing Development Organization, Inc.
- Consumer Credit Counseling Agency - Shreveport
- Caddo Community Action Agency

Each of the aforementioned agencies provides prepurchase counseling, default/foreclosure counseling, and rental counseling.

Building Quality Communities

Neighborhoods Instead of Subdivisions

The Costs of Sprawl

Expansion has always been an integral part of the American consciousness. Land is abundant in the United States, and part of the reward for hard work has always been the ability to acquire land, preferably within the "wide open spaces". As a result, our communities have consistently expanded as those with the means have sought the perceived freedom, pride in ownership and superior quality of life that comes with a new home built on previously "unoccupied" land. It is an experience that connects us with our adventurous, frontier-driven forefathers.

The advent of the automobile, mass-produced housing, interstate highways, and an increase in per capita affluence have all worked together to make this part of the American Dream available to the middle class. Proximity to services slowly became less of an issue as people discovered the comfort of traveling by automobile to destinations remote from the living environment. It is not unusual to travel several miles to work, shop or play. As a result, residential development occurs in subdivisions that have little relationship to the surrounding environment. The result is known as "sprawl," and it has allowed communities to grow, consuming both the surrounding rural areas and smaller communities.

This is the trend that is faced by Bossier as subdivisions continue to blossom to the north, south and east of the community. Areas such as Airline Drive and Swan Lake Road to the north, Sligo Road to the south, and the U.S. 80 "Haughton" growth corridor to the east are indicative of the predominant, low-density development pattern in which agricultural or vacant land is transitioning to urban uses. It is a trend that has the potential to consume, overwhelm and outgrow the community.

Sprawl has not come without costs, and today people are beginning to realize that, in many ways, those costs supercede the benefits. Consider that while people have moved from older areas of the community, such as North Bossier or Shady Grove, they have effectively altered and blurred traditional patterns of growth. As a result, sprawl occurs with little regard for the cost of services and infrastructure necessary to maintain an expected quality of life.

Prior to sprawl, expansion occurred in a dense pattern adjacent to other development, thus ensuring that infrastructure such as streets, water, and wastewater occurred in a systematic and cost-effective fashion. Likewise, government services such as law enforcement, fire protection, schools, libraries, parks and general administration remained concentrated.

Throughout Bossier, subdivisions have leapfrogged vacant and developable parcels, yet infrastructure and services are still expected to stretch past these parcels without a decrease in quality. Because developers generally must provide much of the infrastructure that they require beyond the existing system, the added costs of development are simply added on to the cost of purchasing a home.

In *From Sprawl to Smart Growth*, Robert Freilich provides examples of the substantial costs associated with sprawl. He notes that the Urban Land Institute, in a study comparing sprawl conditions to those of traditional development, concluded that the combined costs of sprawl added as much as $48,000 to the cost of a home. In another instance a community indicated that their ability to collect approximately $2,100 in taxes per household was roughly $1,600 less than necessary to adequately cover services.

Bringing the Old into the New:
Traditional Neighborhood Development

North Bossier has a distinctive character that sets it apart from many other areas of Bossier. It is one of the few places locally that follows the traditional grid pattern, and its design is not based upon a relationship with one of the

major thoroughfares that now exist in Bossier. The houses in North Bossier boast a front porch as entry into bungalow structures. Occasionally, the traditional landscape is dotted by old infill development placed in the neighborhood without a sense of continuity. The neighborhood is limited in size and offers schools as a focal point.

While North Bossier is certainly not everyone's image of appropriate design and a model neighborhood, it carries many of the same characteristics that communities across the country are realizing have been lost through modern subdivision design.

Designing to incorporate the various characteristics of *traditional neighborhood development* does not imply that homes must all be smaller than 1,200 square feet or that development should abandon many of the important lessons learned regarding good design. On the contrary, the desire to utilize traditional development techniques is from recognition that many important traits are missing that help to create a sense of community.

Traditional neighborhood development recognizes the benefits of a time-honored approach to issues such as density, open space, street width, pedestrian-friendliness, amenities, mixed-use development, design, scale, and compatibility with surrounding areas. The primary focus, however, is upon the ability to walk from one destination to another, usually in less than 10 minutes.

Other characteristics of traditional neighborhood development include:

- *Focus on the neighborhood as a single, functioning unit that is part of a larger organization – in this case, the Bossier planning area.* As a single unit, each neighborhood should have definition. The boundaries or edges of the neighborhood unit should be recognizable, but not impassible. An edge need not indicate that every neighborhood in Bossier act as a fortress, but rather as a clearly recognizable entity.
- *Each neighborhood should have a focus.* A focus can be a gathering point, such as a park or community center. It may also be a destination such as an elementary school or commercial center. In any case, the focus, like the boundary, should be obvious and should include the character necessary to make it unique or important to the particular neighborhood.
- *Pedestrian and vehicular movements are equally important.* Many of the subdivisions constructed in Bossier have been created since the automobile became popular. They have become monuments to the automobile with wider streets, incidental sidewalks and the garage replacing the front porch as the primary feature of a home. While it is not possible or desirable to eliminate automobile traffic, it is possible to make opportunities for pedestrian or bike travel more enticing. Narrower streets that reduce the scale and increase safety are options. Enhanced sidewalks and trails are instrumental to the success of the plan.
- *Uses within a traditional neighborhood development are mixed to allow for nonresidential activities such as commercial establishments, schools and open spaces.* Housing is particularly mixed to support a wide variety of housing needs. As a rule, those living in higher density housing may wish to be closer or incorporated into commercial opportunities.
- *Traditional neighborhood development is compact with a variety of green spaces as relief.* Generally, lot sizes are smaller than the standard in a modern subdivision ordinance as are setbacks.
- *Traditional neighborhood development can include an integral connection with the transit system.* Traditional neighborhood development is more self-sustaining and dynamic because it incorporates a number of elements that encourage walking, particularly features such as neighborhood commercial uses and parks that would require driving in conventional subdivisions. However, shopping beyond daily needs, major recreation activities and most employment will continue to require travel outside of the neighborhood. Transit is a means to carry people from one significant destination to another without a personal automobile. While it is doubtful that the combination of walking, bicycling and transit will entirely replace use of the automobile, traditional neighborhood development provides these as equally viable alternatives.

Incidentally, traditional neighborhood development is equally applicable to both urban and residential areas, which makes it particularly suitable for Bossier. Within

Bossier City, this format can be used to create (or re-create) traditional neighborhoods that are interconnected through the street and sidewalk system as well as trails and other linkages. Each neighborhood functions as a node that is ultimately connected to larger destinations for work, shopping or recreation.

In the more rural areas, traditional neighborhood development creates a village, similar to many rural villages that simply grow up around the connection between two country roads. In this case, the neighborhood commercial uses may be somewhat larger scale in order to provide additional services and reduce the need to travel outside of the village. Development of a more urban setting may incorporate limited work opportunities and a "village green" concept. For more rural character, commercial activity may be limited and more natural open space may be incorporated into the design.

Use of traditional neighborhood development techniques will require changes to existing ordinances. The current comprehensive planning process includes a component to consider and recommend Development Policies, Strategies and Incentives. In addition, the new Master Plan will lead to drafting and adoption of a Unified Development Code for the Bossier MPC Planning Area. This ordinance diagnosis and enhancement process, building upon the long-range planning recommendations of the Land Use and Development Master Plan, could include the creation of one or more new residential districts or amendment of existing districts.

While the processes may remain the same, regulations regarding such items as setbacks and lot sizes may have to be adjusted to allow for more dense and creative development. Mixed-use opportunities such as incorporation of neighborhood commercial establishments or low impact home businesses should be permissible. Design guidelines should dictate the foundation for good design but not restrict freedom of design beyond the desires of the community. Monuments and a variety of open spaces should be a requirement.

Benefits of Traditional Neighborhood Development and Transit Oriented Design include:

- Creation of additional parks and preservation of open spaces throughout the community.
- Increased density and proximity to services, which reduces the cost of infrastructure and provision of public services.
- Development containing characteristics of historic "small town America" that are considered aesthetically pleasing.
- More efficient utilization of space and greater compatibility with the surrounding environment.
- The inclusion of life-cycle housing that provides a variety of housing options in a single location to more closely suit a range of specialized needs involving affordability, accessibility, housing size, and location.
- Mixed-use development that offers opportunities for home businesses or residential units above commercial establishments.
- Pedestrian-friendly environments designed to decrease dependence on the automobile, including integrated transit opportunities for travel outside of the neighborhood.
- Increased "social capital" as more opportunities for interaction between households begins to build the genuine feeling of "neighborhood" often missing in conventional subdivisions.

Creating a Sense of Security

The physical design of neighborhoods, including their layout and the built orientation, can affect the levels of crime and fear in neighborhoods. Researchers have identified basic design principles that reduce fear and prevent crime in neighborhood communities. The basic principles of Crime Prevention Through Environmental Design (CPTED) include natural surveillance, natural access control, and territorial/defensible spaces.

Natural Surveillance. Humans feel safer in places where they can see what is going on around them. Law-abiding citizens also feel safer in settings where they are visible to other law-abiding people who they believe would help in situations of danger. Perpetrators of crime, in contrast, prefer settings that are not visible to law-abiding people who might assist their victims. Therefore, the more the physical environment of a neighborhood enables people to survey their surroundings and to be visible to other

people, the safer a neighborhood will feel and be. A few examples of design features that promote natural surveillance include:

- Good lighting of streets, alleys, and parking areas;
- Landscaping that does not provide hiding places for perpetrators. Hedges and shrubs should be no higher than three feet and tree canopies no lower than eight feet;
- See-through types of fences;
- Windows that look out upon streets and alleys, particularly bay windows; and,
- Non-recessed doorways.

Natural Access Control. Perpetrators desire settings that allow them to enter and exit without being noticed, and they do not prefer places with limited points of entry and exit. Multiple access points allow more options for escape following a crime. Therefore, by limiting the number of entrances and exits to a community it reduces the attractiveness of the neighborhood as a place for crime. Many communities that are planned on the grid system are beginning to close streets to limit access to their community and create identifiable neighborhood boundaries and points of entrance and exit. Contemporary neighborhoods that are planned with a curvilinear street system have generally applied this principle in the subdivision layout and design.

Territoriality/Defensible Spaces. A basic principle of CPTED is for citizens to show that they own their territory, which helps to deter crime from a neighborhood. A neighborhood that portrays a strong physical image is less likely to attract perpetrators than those that appear less defensible. Subdivision perimeter fencing commonly used in contemporary subdivision design and master planned communities, is a method utilized to establish identifiable boundaries. Also, simple property enhancements such as flowers in planters on balconies and in business districts, vegetable and flower gardens, seasonal decorations, and outdoor holiday displays contribute to the portrayal of strong community images, which symbolize a sense of togetherness as a community. These design principles help to minimize crime incidents in neighborhoods. Many communities throughout the United States have incorporated the CPTED design principles into their zoning ordinances, subdivision regulations, design standards, and neighborhood planning programs. Generally, the incidence of crime in neighborhoods can be significantly reduced through development and implementation of environmental design principles. The MPC may want to consider utilization of these techniques in a neighborhood planning program or consider their incorporation in neighborhood development standards.

The River Bend subdivision in south Bossier City, while built in a typical suburban style, includes a greenbelt and walking trail network that enables residents to access the entire small neighborhood on foot, including a central playlot for kids.

Taking Advantage of Natural Assets

Preserving Floodplains and Open Spaces

Much of the new residential development in the MPC Planning Area is occurring in areas that are in or adjacent to areas at risk of flooding. Subdivision design that simply seeks to maximize the number of lots per acre will only increase the risk of flooding. To a certain extent, new problems could be created by the alteration of the natural drainage pattern.

Across the country, new subdivision design concepts are being implemented to alleviate this and other pressures on the environment resulting from urban encroachment into the rural fringe. One such technique is the use of *cluster zoning*. The concept behind cluster zoning is simply to achieve the same number of units allowed on a site, but reduce the lot sizes and cluster the houses in order to achieve efficiencies and creativity in design. By allowing the developer to place units closer together, cost is saved in terms of the amount of road and infrastructure to be constructed, land to be cleared, and storm drainage capacity to be installed. Further, open space is preserved,

which could be used for parks, natural areas, wetlands, or agricultural areas.

Cluster techniques tend to create compact neighborhoods with a strong sense of identity and character. Additionally, the homeowner is able to reap the benefits of surrounding open space without the demands and liability of ownership.

Unlike standard zoning, cluster zoning tends to take advantage of the strengths and weaknesses of an individual building site. Contours and views can be accentuated to add aesthetic character to the development and profit to the developer. Meanwhile areas such as floodplains, wetlands, and areas of historic significance can be utilized for open space.

More recently, a descendent of cluster zoning known as *Conservation Subdivision Techniques,* has been successfully utilized to replace large lot development, particularly in rural areas. Conservation subdivision techniques take the creativity and flexibility of cluster zoning an additional step by requiring conceptual designs and reducing standard site requirements.

Conservation Subdivision Techniques generally follow a four-step process:

- Step One: Identify primary conservation areas within the site. Primary conservation areas represent areas unsuitable for development such as floodways/floodplains, wetlands, steep slopes, or other areas of significance that are deemed inappropriate for development by the local jurisdiction, such as prime farmland or forestland. These areas are not considered a part of the buildable area of the site when calculating the number of units that may be developed.
- Step Two: Identify secondary conservation areas within the site. Secondary conservation areas represent areas that are buildable but contain special features that the developer or the community would like to see preserved. These may include forestland, prime farmland, and special viewsheds that add character to the development or even areas that the developer wishes to avoid for the benefit and marketability of the project. Secondary conservation areas are included in determination of the allowable number of units because conservation areas are a "wish list" of items that the developer or the community would like to have remain, but are not required to keep. Both primary and secondary conservation areas should be drawn on a concept plan for consideration in placement of units. In accord with the clustering concept, Conservation Subdivision Techniques generally require that a percentage of the site be set aside for open space. If so, the sum total of the primary and secondary conservation areas should be equal to or greater than the amount of open space required.
- Step Three: Calculate and place the number of units that may be developed on site. This is calculated as developed within the Unified Development Code and may be based on a minimum lot size or on a number of dwelling units per acre. Once the appropriate number of units is determined, they are placed upon the site clustered according to appropriateness to the site. Lot lines and streets are not placed until the appropriate location of units has been determined. Decisions are made at this time regarding the need and the extent to which secondary conservation areas are to be encroached upon. Open space requirements may limit the amount of areas designated as secondary conservation areas that can be removed.
- Step Four: Lot lines and streets are added to the development and the final concept is developed. Lot lines are placed with little regard to concerns that are commonplace in most subdivision ordinances such as irregular lots or flag lots. Efficiency and desirability of design take primary precedence.

Both cluster zoning and Conservation Subdivision Techniques require changes to existing ordinances to build in needed flexibility and room for creativity.

Benefits of cluster zoning/Conservation Subdivision Techniques include:

- Preserving open space and rural character.
- Arranging development in clusters to reduce impact upon the environment.
- Encouraging condensed development that allows for overall added units per acre while delaying buildout.
- Targeting specific conservation sites of interest for preservation and for use as parklands, trails or natural areas.

- Reserving some open space as "holding areas" to allow for more dense development as the community continues to expand. In this manner, Conservation Subdivision Techniques act as a temporary compromise between traditional development patterns and typical sprawl.
- Producing quaint village or hamlet themes reminiscent of historic rural America.
- Offering opportunities to apply conservation easements to ensure that land preserved through cluster zoning also preserves open space and agricultural areas.
- Reducing the amount of added infrastructure created by the development.

The Role of Manufactured Housing

Perhaps no other form of housing in America is as vilified, ridiculed and misunderstood as manufactured housing. The stereotypical perception of persons living in manufactured homes follows along similar lines.

In some cases, manufactured housing has earned its reputation, but rarely have its inhabitants. Prior to mandated construction requirements enforced by the Department of Housing and Urban Development, "mobile homes" were cheap and, as the term implies, mobile. Mobile home parks were often poorly designed and created an immediate eyesore for the community.

Today, even in its most basic form, manufactured housing is a far cry from its predecessors. In fact, when developed in a manner appropriate to the expectations of the community, manufactured housing has the potential to provide quality, affordable housing, to blend in and to enhance the surrounding area.

While it is very unlikely that many of the households living in manufactured housing have been able to live down to their allotted stereotype, many have sought manufactured housing because of its affordability. In the current housing market, a number of people are seeking to become homeowners but are unable to find a "stick built" home that is in quality condition, is affordable and meets their needs. Manufactured housing provides the pride of homeownership to these households.

In 2000, more than one in five new homes purchased in the United States was a manufactured home. While the National Association of Home Builders may not anticipate manufactured housing becoming the residence of choice for the majority of homeowners, it does acknowledge that by the year 2010 more residences will incorporate prefabricated, pre-assembled materials.

The MPC Planning Area has many examples of manufactured home developments, ranging from established higher-density parks within Bossier City to individual homes placed on rural one-acre lots, which some see as another contributor to sprawl and overextended public services.

Bossier is home to a variety of manufactured housing communities, mobile home parks (as will be discussed, there is a difference) and single-lot sites with manufactured units. In some cases, such as Southern Living, the homes are older, more basic, and in a declining condition. Windsor Place represents a new trend in manufactured housing developments in Bossier. It includes a higher quality of housing unit and improved site

standards but remains basic compared to the possibilities that can be created through innovative use of new development techniques.

Manufactured Housing Defined

The general public classifies nearly all factory built housing as "mobile homes." In fact, a mobile home has not been constructed since 1976, when Congress passed the Federal Manufactured Home Construction and Safety Standards. However, of the factory built housing alternatives, manufactured housing remains the closest cousin to the earlier generation "mobile home."

Manufactured housing. Manufactured housing is constructed entirely within the confines of a factory, removed from the elements. Such housing is constructed to the requirements of the "HUD Code" that was developed to ensure that homes transported across one or more states were held to a single, specific construction standard. In some cases, area building codes are more stringent than those required by the HUD Code. On the other hand, the HUD Code is more restrictive in some jurisdictions.

Once transported to a site, a manufactured home may be placed on a permanent slab or on a more temporary foundation. Generally speaking, the wheels and hitch are removed. In the case of a multi-section home, the portions of the home are attached at the site. Any structural additions to a manufactured home must meet local or state building requirements.

Modular housing. Unlike manufactured housing, modular housing is not required to meet the HUD Code. Rather, such homes are required to meet the construction requirements of the location or state in which the home will be placed. Like manufactured housing, the large majority of a modular home is constructed within a factory, although major additions can be made once the home has reached its location.

Panelized housing. Also commonly known as "sectional housing", panelized housing is constructed at the factory as a series of units that include windows, doors, wiring, plumbing, and other elements of the structure. Like modular housing, panelized housing is assembled on the site, but as a series of linked panels. Also similar to modular housing, the panelized home must be constructed to the local or state building codes within the state and location in which the home will be constructed on site.

Pre-cut housing. The final, factory built alternative involves "pre-cut" housing that is only partially prepared at the factory. After all materials are cut in accordance with a specific construction schedule, they are packaged and delivered in a kit with all other components of the house to the location of the home. Beyond this, the pre-cut home is assembled in much the same manner as any other "stick built" home, but with much more efficiency. When completed, the home must meet all requirements of the appropriate local or state building code.

The Affordable Stepchild

As mentioned previously, mobile homes have gained a historic reputation as "cheap" housing. From the construction standpoint, uniform national standards have created a home that, while not assembled on site, is well built and structurally competitive with many "stick built" homes. Yet, from the affordability standpoint, manufactured housing remains cost effective.

Table 9.3 - Cost and Size of New Manufactured Homes Compared to Conventional Homes indicates the overall difference in the cost of purchasing an average manufactured home compared to its "stick built" counterpart. In 1999, the price of an average 1,480 square foot manufactured home was approximately $43,600 while the price of an average 2,230 square foot "stick built" home was $153,425 (without land cost). Cost per square foot of the manufactured home was $29.46 against $68.80 for the "stick built" unit.

Contrary to popular opinion, manufactured housing is not

Table 9.3
Cost and Size of New Manufactured Homes Compared to Conventional Homes

New Manufactured Homes	1994	1999
All Homes		
Average Sales Price	$32,900	$43,600
Average Square Footage	1,335	1,480
Cost Per Square Foot	$24.64	$29.46
Single Section		
Average Sales Price	$23,900	$31,800
Average Square Footage	1,105	1,245
Cost Per Square Foot	$21.63	$25.54
Multi-section		
Average Sales Price	$41,800	$50,200
Average Square Footage	1,555	1,605
Cost Per Square Foot	$26.88	$31.28
New Conventional Homes		
Average Sales Price	$154,100	$195,800
Less Land Price	$38,525	$42,375
Price of Structure	$115,575	$153,425
Average Square Footage	2,115	2,230
Cost Per Square Foot	$54.65	$68.80

Source: U.S. Department of Commerce, Bureau of the Census as compiled by the Manufactured Housing Institute

constructed to a far reduced standard in order to maintain affordability. On the contrary, the cost savings is actually spread across a number of variables.

Factory built housing resembles an assembly line approach that permits efficient construction under mass production conditions and without the concern for weather or vandalism. As indicated by the Manufactured Housing Institute, manufactured housing is also more cost effective because construction workers are trained specialists that are not required to travel from one job site to the next or coordinate with other specialists, such as plumbers or electricians.

Finally, because of the mass production, assembly line approach, the factory is able to assemble more units. As a result, materials are purchased at a reduced rate.

Manufactured Housing for both Quality Infill and Remote Site Development

Countless ordinances across the country prohibit the use of manufactured housing in existing neighborhoods and subdivisions as a source of infill development. Many neighborhoods would rather be faced with dilapidated housing or a vacant lot than see a standard manufactured home brought in.

Standard manufactured housing is more than simply perceived as "different" from surrounding housing. It generally, unquestionably *looks* different. Combined with its less than stalwart reputation, the common manufactured home is rarely designed to blend in with the rest of the community. Materials are inconsistent with those used in stable neighborhoods. The roof pitch is usually smaller, the front facade is very general, the home is proportioned much differently, the frame is protected from view by a metal or plastic "skirt", and exterior amenities are lacking such as a chimney, porch or garage. In short, it appears cheap, and few neighbors would be willing to accept that "impact" upon their property.

Slowly, manufactured housing organizations have come to recognize the emphasis on maintaining and enhancing local quality of life. As a result, manufactured housing has the opportunity to become much more attractive and, in most places, even blend in with the surroundings. As an example, the roof of a manufactured home can now be "hinged" to allow it to be raised or lowered to meet roof pitch requirements. Some manufactured homes can be designed to permit vaulted ceilings and nine-foot high walls, as well as appropriate length and width. Some are now also designed to span two stories.

Efforts by the manufactured housing industry to improve the quality and appearance of its product appear to be gaining the appropriate result. A study conducted in 1997 by the East Carolina University Department of Planning determined through significant research that the existence of manufactured housing does not negatively impact surrounding property value.

Manufactured housing developed to its full design potential remains rare. Bossier has a significant number of manufactured homes, many of which are located in manufactured home "parks" or "communities", but no example exists to indicate the full potential of manufactured housing. But that is certainly no indication that such standards cannot be implemented or that such a level of quality yet affordable housing is not attainable.

A newer development off East Texas Street in east Bossier City includes basic design enhancements, including individually fenced back yards that set it apart from more typical developments nearby.

Setting Design Standards for Manufactured Housing

To ensure that quality manufactured housing is developed in Bossier, particularly relative to infill development that requires continuity with surrounding homes, the community will likely need to create specific design standards. Such standards are common throughout the country and are a clear indication that manufactured

housing is acceptable assuming that it can meet specific aesthetic requirements.

Visual appearance requirements for manufactured housing may address:

- Installation upon a foundation that complies with state or local building codes;
- Length and location of the structure;
- Width of the structure (commonly at least 14-20 feet wide);
- Use of exterior materials that are consistent with surrounding residential structures, including color, texture and appearance;
- Roof construction with an acceptable pitch, overhang and materials (in some cases, the roof is required to be double pitched);
- Removal of transportation related items such as the wheels, axles and hitch;
- Landscaping that is consistent with the surrounding residential area; and,
- Construction of a garage, front porch or other feature that will add consistency with the surrounding area (and provide for enclosed storage of mowers, bicycles, etc.).

Building Better Communities

The MPC Planning Area includes a number of mobile home parks and manufactured home communities, in a variety of locations that range in quality from sound to declining. Development of new manufactured housing communities has received significant negative attention and pressure from area residents who feel that new manufactured housing will not maintain or enhance the quality of life in the area and will cause area services and value to deteriorate. The general attitude appears to be that manufactured housing communities are acceptable as long as they are not located in close proximity to established neighborhoods or where they will impose on existing services and facilities.

As with infill development, much of the reputation of manufactured housing communities has been earned through negative history and experiences. The large majority of sites for manufactured housing communities have been developed and operated under private ownership and leased to the owners of manufactured housing. Because the land will be under private control, government has generally minimized regulation and oversight. As a result, most of the communities start out below the standards of conventional subdivision development. Some communities are also not well-maintained over the longer term, particularly among mobile home parks.

Like the individual manufactured home units within them, the quality of manufactured housing communities has steadily improved over time as demands and expectations of both residents and neighbors have increased. Still, a lack of strong standards places manufactured housing communities at a disadvantage and harms their reputation.

Resolving this issue is a dilemma for many communities. Requiring manufactured housing communities to meet the design standards of conventional subdivisions will increase the cost of housing. However, lack of strong but reasonable and consistent standards results in creation of substandard communities.

Manufactured housing communities require standards that are very similar to conventional subdivisions, including:

- Density, particularly if no minimum lot size is established;
- Lot size that is increasing over time to match similar requirements for conventional subdivisions;
- Lot width, frontage and depth;
- Setbacks and minimum yards;
- Lot coverage, as a means to prevent overcrowding of units within a community;
- Distance between units for fire safety reasons and limitation of density;
- Common open space and facilities, particularly with the understanding that residents of manufactured housing communities need the same level of services, if not higher, as residents of conventional subdivisions;
- Buffering and enhancement of boundaries and entrances, again in a manner similar to conventional subdivisions;

- Landscaping (including mature tree preservation, where appropriate);
- Streets and sidewalks that meet the standards of conventional subdivisions; and,
- Adequate parking spaces and location off of the internal circulation roads, equivalent to off-street parking requirements for conventional developments.

To allow for innovation in design, manufactured housing communities can be developed utilizing the same alternative design techniques offered to conventional subdivisions, such as cluster subdivisions and Planned Unit Development.

Neighborhood Planning

The MPC, in partnership with Bossier City and Bossier Parish, may consider establishing a neighborhood planning program to shape the way area neighborhoods will grow and change over the next 20 years. The neighborhood planning process should be community-driven, with the MPC, City and Parish providing support to neighborhoods that come together to craft a desired future for their area and create a plan to achieve it. The plans generated by the neighborhood groups, through assistance by municipal, Parish and metropolitan government, will help to guide support and service delivery to the neighborhoods. The benefits of a neighborhood planning program may include:

- Enhanced quality of life;
- Recognition as a desirable place to live;
- Creation of a livable and sustainable community;
- Development of an enhanced physical environment; and,
- Provision of a forum to inform and educate citizens on local development processes and other local issues.

The neighborhood planning program should have a clear objective to be accomplished before it is formally initiated. The basic concerns need to be clearly articulated so the success of the program can be based on the achievement or resolution of the stated concerns. Following a statement of objective, the neighborhood should acquire a thorough understanding of the character of its area by preparing an inventory of pertinent information. Completion of an inventory will allow the community to pinpoint more specifically what it wants to maintain or improve. The inventory should include: (1) physical conditions, (2) visual and aesthetic conditions, (3) growth related factors, and (4) stakeholder input.

Physical Conditions

- *Existing land use* – The extent and variety of land uses are among the strongest determinants of neighborhood character. The inventory should document the type, scale, and density of development and also identify vacant or abandoned properties.
- *Historic or architectural resources* – Documentation of these resources identifies the heritage of the neighborhood, and these assets can enhance property values, increase neighborhood pride and enhance economic development.
- *Natural features* – These features will play a role in defining the potential growth constraints, patterns, and limits of the neighborhood. Natural features are often as important to the character of the neighborhood as is the built environment.
- *Special features* – Neighborhoods typically identify themselves by a special feature such as a landmark, park, or church, which contributes to its charm, uniqueness and neighborhood character.
- *Traffic characteristics* – The extent, type and flow of traffic through the neighborhood needs to be examined to address current traffic related problems.

Community organizations can help to maintain local pride and encourage beautification efforts, such as an award for this landscaped cul-de-sac in a south Bossier neighborhood.

- *Structural conditions* – Dilapidated buildings, streets, sidewalks and other physical deficiencies can significantly detract from the neighborhood's overall image and should therefore be identified.

Visual and Aesthetic Considerations

- *Viewshed* – The "viewshed" of vistas that are visible from and within the neighborhood should be mapped and delineated so that the best approach to visually preserving or improving the neighborhood may be determined. Even in areas of limited topography, viewshed considerations should include communication towers, transmission lines, billboards, and conflicting land uses.
- *Entry images* – The images one sees upon arriving in the neighborhood are very important to the overall image of the neighborhood.
- *Special landscape features* – Street trees, open space, greenways, gardens or other landscaped areas are assets that add aesthetic charm to a neighborhood and are worthy of protection.

Growth Related Factors

- *Current policies and regulations* – The existing zoning adjacent to neighborhoods should be closely examined to determine the potential magnitude of future development. Also, the development standards should be evaluated and compared to the objectives of the neighborhood.
- *Sewer and water availability* – The availability of sewer and water infrastructure is a determinant of future growth regarding the capacity to support new development or redevelopment.
- *Apparent or potential growth pressures* – The development pressure around the neighborhood will have a significant impact on the character of the neighborhood. The primary concern is how to minimize the impact of expected or potential growth.

Stakeholder Input

- *Public meetings* – Information provided by residents and property owners is valuable in providing insight into the character of the neighborhood and a better understanding of the residents' perspectives and priorities. Public participation should include those who are directly involved with the neighborhood.
- *Individual interviews* – Personal interviews offer additional information that is often difficult to uncover through public meetings. Facts relating to neighborhood history, recent changes or trends and significant local issues are frequently identified through personal interviews.

Following completion of the inventory, the MPC, City or Parish, and neighborhood should analyze the outcome of the inventory and existing condition assessment and begin to prepare a neighborhood plan. The plan should formulate specific actions to protect the neighborhood's essential features, respond to actual growth demands, and reflect the preferences of local residents. The plan may include:

- identification of physical improvements;
- redevelopment alternatives and strategies;
- beautification projects;
- economic development strategies;
- fundraising programs;
- neighborhood design standards;
- development/redevelopment guidelines; and,
- other citizen-initiated programs and improvements.

The plan may specifically address land use, zoning, lot area, lot width and depth requirements, building coverage and building height, buffer yard requirements, parking requirements and standards, sign regulations, open space preservation, landscaping, lighting, road pavement and details, vehicular circulation, speed limits, pedestrian circulation, design guidelines, building addition guidelines, architectural detail requirements, maintenance of structures and properties, and other applicable issues.

To enact the plan, a neighborhood organization should be organized as a citizen action committee. A neighborhood organization may accomplish the following:

- Conduct detailed inventories of existing conditions;

- Initiate beautification projects such as neighborhood entrances and vacant lots;
- Establish standards of neighborhood development through restrictive covenants;
- Provide local policing through neighborhood watch and other programs;
- Raise funds for local improvements such as neighborhood parks or centers;
- Establish a social network;
- Sponsor neighborhood events such as block parties, home tours, etc.;
- Provide self-enforcement of codes and restrictions;
- Distribute newsletters on items of neighborhood interest;
- Coordinate with the City and/or Parish on local improvement projects;
- Establish a volunteer network for neighborhood cleanup and beautification; and,
- Represent the neighborhood on local issues.

Preferably the neighborhood organization would be formed through creation of a neighborhood association, which adopts private deed restrictions for the defined neighborhood.

Neighborhood Implementation of Private Covenants

A restrictive covenant is an agreement between private individuals limiting the way in which property may be used. It is defined as follows:

> The restrictive covenant is a device whereby certain uses of land can be outlawed for the benefit of the owners of land. Included in the deed whereby the land conveyed, such covenants bind the owner to refrain from the proscribed use. Where such covenants are a part of a general plan for the development of an area, exacted by a grantor who retains neighboring property, or mutually agreed upon by neighboring landowners, they run with the land.

Covenants are typically signed at the time of subdivision between a developer and the purchasers, although the residents of an established neighborhood may do the same. Under accepted legal doctrine, a scheme of covenants creates reciprocal negative easements between all the property owners within the affected area, giving each of these the right to enforce the covenant, and conversely the duty to conform to its restrictions. A covenant is a private contractual agreement and may impose certain limitations on properties and property owners that are unenforceable by zoning or other city ordinances.

The provisions of the covenants usually state the permitted uses within the defined neighborhood, such as only single-family dwellings and accessory structures. Architectural control is quite common and the covenant may refer to an architectural committee responsible for reviewing and approving house plans. Limitations on the size and cost of the dwelling may be stipulated. Minimum side yards and setbacks may also be outlined. Minimum lot size and reservations for utility easements are also normally contained within the covenant. Other provisions may be included, and the number of limitations is at the discretion of the contracting parties, in this instance by the neighborhood.

Image & Design

All cities have an identity, an independent character that forms the city's unique personality. This character is demonstrated by the physical image of the city. It is found in the visual quality of the built and natural environment that defines the city's physical space. The visual elements, the parts of a city that residents and visitors see, are a reflection of the values held by the city's citizens and leaders.

This section of the Master Plan addresses the visual image of the study area. The chapter summarizes the visual image and physical conditions in the study area. Goals for improvement are outlined and finally, the chapter proposes concepts for the improvement and standardization of Bossier's visual image.

To foster economic development and support a good quality of life, cities must pay close attention to their visual image as they address their growth and renewal. This section of the master plan provides Bossier City with recommendations for improving existing conditions, and guidelines for use in new development. Using these concepts, and applying them to each specific situation, Bossier City will reshape its image, projecting a new character for the 21st Century.

The visual elements, the parts of a city that residents and visitors see, are a reflection of the values held by the city's citizens and leaders.

The Built Environment

Human habitat is comprised of two distinct components. First, is the natural environment in which the community, town or city is located? Bossier City benefits from the lush southern climate and river delta setting in which it resides. The natural environment provides a number of amenities as well as challenges.

Within this natural setting lies the other component of human habitation, the built environment. The built environment is the physical space, which has been manipulated by human activity to provide additional amenities such as housing, shelter for commercial activity, and transportation routes. This combination of natural and built environments establishes the parameters for a city's identity.

Bossier, like other cities, is shaped by connections and divisions between its parts. Areas of common activity are successful if unified and at the same time separated from other areas, which are not compatible. Different areas of a city each have their own character based on the activities within the area and on the visual elements that give it identity.

Different areas of a city are successful if they are connected to form a unified whole. It is the activities within each area, the visual quality of physical elements, and the connection and separation that make up a city's character.

To improve or control the quality of the visual image, a city must control the quality of specific elements that contribute to the image. We can identify these physical elements, explore their uses, and propose ways to improve their performance for Bossier City. Consistent improvement of performance for each element will result in an improved performance of all and demonstrate the complete character of Bossier City.

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Image Reflects Values

The natural setting for a city is a given condition. But the built environment is established and developed by the hand of man. The built environment is the visual component, which we control. More importantly, since the residents of a city control the appearance of the built environment, it is a reflection of their collective values. The appearance of new development represents current values. The appearance of older, existing structures and development represent the values at the time they were established, as well as the attitudes of citizens toward existing conditions. To control the image of the entire city, attention must be given not only to new development, but also to the appearance of what exists and has been in place for some time.

Often, residents become accustomed to the visible environment around them. Even when conditions are not attractive, familiarity can blind citizens to poor visual image. Those who are not familiar with an area pay a great deal of attention to visual quality, and make judgments about the character of a city based on the visual elements they encounter. City residents and leaders must remain vigilant, managing the existing conditions within a city while controlling the quality of new growth and development. Bossier has taken steps to change its visual character, but more work is needed.

> *To fully leverage economic opportunity and encourage economic opportunity and positive development, Bossier City must focus on and control the quality of its visual character.*

Change in a city's visual image can occur. But it takes the collective will of the citizens and community leadership to make the change. The results are rewarding however. Since the image is a statement of the community's character, the image is also a statement to all who visit. We all know that "first impressions" are lasting. It is no less so with the visual impression of a city. Visitors, investors, tourists and prospective new residents base their assessment of a city's character on the images they see when they first arrive. Visual image is vital in communicating values. To fully leverage economic opportunity and encourage positive development, Bossier City must focus on and control the quality of its visual character.

Existing Conditions

Existing conditions are the starting point for change and improvement of visual image. The planning team members spent significant time riding the major corridors in and around Bossier, visiting each of the distinct neighborhoods, and documenting conditions with photograph and sketch. In addition, team leaders attended four Community Meetings to gather input from citizens of the area. Visitors to the meetings expressed strong support for improving the visual environment. Sketches depicting design options were on display and these generated a consensus that image enhancements are needed in many parts of Bossier. Team members collected comments on landscape, signage, lighting, and other design aspects. These comments are reflected in the recommendations provided within this chapter.

Form Givers

A number of primary form givers or physical conditions which exert significant influence on the current organization and future growth of Bossier shape the community. The primary form giver is the Red River. The river, of course, is the original reason for Bossier's existence, and it drives the shape of the western boundary including the entertainment areas, the parkway and South Bossier. The river is a definitive boundary, but it provides opportunities for recreation, commerce and aesthetic appeal that many cities do not have. Until recently, the river was considered to be at the back door of the city, and development moved away from the water after World War II. Now, with the channelization and control of stream levels, the river is accessible. The Arthur Ray Teague Parkway has defined the character of much of the waterfront, but growth near Downtown and at the casinos is now impacting the river. In addition, development to the north and the south of the city along the river is being discussed. Positive steps should be taken to understand the river's value, and to support the quality environment the Red River provides to Bossier.

Another form giver is Barksdale Air Force Base. The air base is vital to Bossier's economy, not to mention our national security, and it has been a component of the community for a very long time. The air base is large, and consumes a very large portion of the land area within the city limits. Because of Barksdale's critical military mission it maintains

significant security. By nature, it limits Bossier's circulation and growth patterns. Given Barksdale's significant stature within the community and the Nation, the base must continue to be accepted as an important neighbor. Barksdale maintains it's property and manages its boundaries efficiently. The base is well groomed, with a significant west entry that sets a standard for visual aesthetics. Future planning around the base should reflect similar characteristics.

In the future, planning base leadership will be needed to help coordinate the development of buffers, boundaries, and gateways that are both functional for Barksdale's mission, and aesthetically pleasing to the community.

Finally, the third significant form giver for Bossier is its transportation arteries. Interstate 20, Airline, Benton Road, Barksdale Boulevard, and Highway 80 each create major corridors around which Bossier has shaped itself for most of the 20th Century. Each of these elements influences the current character of the city, and each must be considered as plans are made for changing and improving visual character. This chapter addresses concepts for improving the visual character of Bossier's corridors, but their influence on the orientation of development must be appreciated. A great deal of Bossier is oriented to these byways in the form of strip retail. And, since these corridors are not on a right angle grid, one roadway intersects the next at obtuse or acute angles. This geometry impacts the visual image of Bossier. First, it creates some difficulty for visitors as they negotiate traffic. Most Americans are accustomed to right angle city planning, and subconsciously orient themselves to a rectangular grid. Bossier's roadways do not respond to this mental orientation, and tend to limit the sense of orientation and reference points. In addition, the acute angles mean that one-roadway travel behind the strip development facing the adjacent road. So, visitors and residents alike have open views to the rear of retail and industrial development throughout the city. This perspective is frequently the least desirable view of a business or residence, but the condition is persistent throughout Bossier.

Key Community Image & Design Issues

Bossier City is composed of a variety of areas within the city, each with their own unique character and quality. And each area is connected by a network of corridors and roadways. These areas are shaped by the form givers and exhibit a wide variety of visual qualities. The design team grouped study activities by areas of common characteristics. This chapter addresses community image and design based on the grouping of areas listed here:

- Corridors and Roadways
- Gateways
- Neighborhoods
- Commercial Areas
- Special Use Areas (Riverfront and Downtown)

Through examination of the city's environment, and from input during Community Meetings, the team has identified a number of key issues related to visual image. These issues, the challenges that face Bossier, must be addressed to improve community image.

Issues of Identity:

Bossier and its component areas and neighborhoods lack identity.

- Entries into Bossier are not well defined.
- Circulation paths are linear, and provide little help in establishing consistent character.
- Business and Special Use Districts lack individual definition.
- Some neighborhoods, particularly the mature ones, lack definition too.
- No single unifying characteristic links Bossier as one community.

Issues of Separation:

Incompatible activities and functions have little separation from each other.

- Entries into different use areas are rare or nonexistent.
- Circulation paths are linear, and provide little help in establishing boundaries.
- Business and Special Use Districts have grown rapidly, overrunning adjacent functions and activities.
- Buffers and screening could be more widely used.
- Neighborhoods lack protection from incompatible uses.

Issues of Unity:

Bossier can benefit from unifying characteristics, image building and identity elements to improve its visual character.

- Corridors and roadways lack visual enhancement.
- Strip development and large retail centers still predominate the street frontage along major thoroughfares.
- Bossier's Riverfront has unique character, and is a limited resource.
- There is a lack of unified wayfinding elements and directional signage.
- Bossier has not recognized any single visual unifying characteristic or element of identity.

Goals, Objectives and Actions

Given the issues observed by the team and the concerns raised by citizens during the Community Meetings, a listing of goals for image improvement is warranted. Goals, objectives and action statements represent an opportunity to physically and aesthetically capture the vision of the Plan. More, good design is not only appealing to both visitors and residents, but a source of accomplishment and pride in the community that residents call "home."

Goals for community image and design include:

- **Give Bossier City and its significant component areas a character of good visual quality.**
- **Define areas by certain activities and functions and establish ways to separate them from one another.**
- **Bring economic benefit and improved quality of life by unifying the visual characteristics of Bossier City.**

Community Identity:

Goal 10.1: Give Bossier City and its significant component areas a character of good visual quality.

Objective A: Enhance the visual image of Bossier city's major entry points.

Objective B: Give definition to significant use districts such as the Downtown area, Riverfront area, and the Arena.

Objective C: Improve identity for what exists, and create a unified identity from those elements for new growth and development.

Objective D: Establish consistent way finding and signage elements throughout the city.

Action 10.1.1: Identify established commercial districts with design elements (such as banners, flags, monuments, public art, and unified lighting), signage, and boundaries.

Action 10.1.2: Provide signage requirements for businesses, including standardized size requirements and height restrictions.

Action 10.1.3: Ensure that signage and lighting standards limit visual distractions, set aesthetic values, and help to develop the character of districts such as downtown.

Action 10.1.4: Establish and enforce building standards, rules and guidelines, which reflect the wanted character of the area while still allowing businesses to establish their uniqueness within the boundaries of the code.

Action 10.1.5: Establish standards of design that encourage creative freedom for individual businesses while ensuring quality development within districts and neighborhoods.

Action 10.1.6: Create signage standards and unified wayfinding to aid visitors and citizens in moving around the district.

Action 10.1.7: Establish individualized theme or design criteria for special districts such as the Arena District and Downtown to allow each the ability to be seen as unique.

Action 10.1.8: Create a common design concept for gateways as landmarks into the city from major thoroughfares and the Red River in order to offer a sense of significance upon arrival or departure from the area.

Action 10.1.9: Install special lighting elements at major gateways and in other public areas to aid in creating a sense of character for arrival into the community or a special district.

Action 10.1.10: Create entry elements to establish uniqueness, identify location, signify importance, and give direction to Bossier neighborhoods and government campuses.

Action 10.1.11: Provide guidelines for new businesses to design their own gateways and bring another design element into the community to reinforce the image of the city.

Action 10.1.12: Create identity for districts through distinct boundaries that lets visitors know they have arrived at a very fun and festive place.

Action 10.1.13: Continue to enforce development standards for paving, walks, curbs, and landscape; establish new standards for mature neighborhoods; and allow pedestrian traffic to move about unimpeded and in a safe environment.

Action 10.1.14: Promote neighborhood associations and watch programs to build a sense of resident belonging, assist residents to maintain an active role in the community and enforce an adopted public image.

Action 10.1.15: Develop and stimulate market driven projects that ensure development in various districts is sustainable and continues to contribute to the community.

Action 10.1.16: Establish infrastructure support, including technology and utility upgrades, which will help businesses to compete in today's market.

Action 10.1.17: Create incentives for relocating professional and commercial offices to the downtown area.

Action 10.1.18 Introduce limited residential development into the downtown area to add a dynamic afternoon and evening character to the area.

Action 10.1.19: Provide public amenities that will encourage activity and promote downtown and other dynamic districts as places to spend time and money.

Action 10.1.20: Incorporate public art into the visual landscape that can capture public interest and add character to the individual districts.

Action 10.1.21: Establish a connection between downtown and new development along the Riverfront to enhance the number of amenities the area has to offer to visitors and guests.

Action 10.1.22: Construct additional waterfront amenities for increased access to the Red River.

Action 10.1.23: Improve all access points to the Arthur Teague Parkway and connect various parts of the city to the corridor and the surrounding, very active park.

Action 10.1.24: Increase outdoor amenities, including additional jogging and bike paths, along the Arthur Teague Parkway.

Action 10.1.25: Protect the natural surroundings surrounding the Arthur Teague Parkway.

Separation of Activities:

Goal 10.2: Define areas by certain activities and functions and establish ways to separate them from one another.

Objective A: Protect neighborhoods from surrounding and incompatible activities and uses. Provide buffer zones between to help control conflict.

Objective B: Screen industrial and service areas of commercial development from thoroughfares and adjacent neighborhoods.

Objective C: Take advantage of, and protect the vital amenity of the Teague Riverfront Parkway.

Objective D: Condemn and remove abandoned and unsightly properties, and foster their replacement with new profitable buildings.

Action 10.2.1: Condemn and demolish dilapidated or neglected properties that detract from the appearance of the MPC Planning Area and can deter new businesses from moving into the community.

Action 10.2.2: Offer economic incentives for renovations and improvements to grounds for existing businesses in at-risk areas that will stimulate growth and economic prosperity.

Action 10.2.3: Establish boundaries between neighborhoods and adjacent incompatible areas of use and shield unnecessary noise and traffic from intruding into neighborhoods.

Action 10.2.4: Place buffer yards between adjacent, unrelated activities.

Action 10.2.5: Identify traffic patterns and keep neighborhood streets free from unwanted traffic and congestion in order to keep neighborhoods safe and quiet.

Action 10.2.6: Determine major access routes and traffic patterns to control over use of highways by prioritizing usage, including restricting heavy use from light use areas.

Action 10.2.7: Replace above ground utilities with an underground system to permit a safer environment for vehicular traffic and reduce maintenance costs.

Design Unity

Goal 10.3: Bring economic benefit and improved quality of life by unifying the visual characteristics of Bossier City.

Objective A: Achieve a unified identity of design elements that is apparent and recognizable throughout Bossier City.

Objective B: Strengthen the visual quality of major form givers, corridors, thoroughfares, Barksdale Air Force Base, and the Riverfront area.

Objective C: Set examples of good visual character within the public domain to help and inspire private commitment to improve the surroundings.

Objective D: Build public support for good visual character by bringing awareness to the residents of the community's image and fostering building codes that reinforce this character.

Action 10.3.1: Landscape public right of ways, including the introduction of street trees and seasonal plantings in a way that is reminiscent of small town character, complements the surrounding natural setting, helps to shield unneeded noise levels and reduce visual clutter.

Action 10.3.2: Develop landscape and tree planting programs in and around city neighborhoods to provide shade, sound absorption and pleasing visual appearance to the community.

Action 10.3.3: Establish and maintain community parks, playgrounds and open spaces that encourage community recreation and provide a place for the whole community to come together and play.

Action 10.3.4: Develop additional community projects that encourage participation in the outdoors.

Action 10.3.5: Actively plan the location of schools to offer close proximity to area neighborhoods allow children to relate to their surroundings and give sense of ownership to parents.

Action 10.3.6: Introduce new long-term and seasonal design elements, such as flags and banners indicating upcoming events and important dates, into the community to provide both vitality and public awareness.

Action 10.3.7: Standardize lighting with common design elements to add to the sense of identity and help to create a unique character for the community.

Action 10.3.8: Improve signage and wayfinding requirements to better guide visitors and residents, allow for easy recognition of signage and landmarks, and improve the public landscape.

Action 10.3.9: Unify size and placement of sidewalks and curbs by adding color, texture, and patterns that can make these areas more appealing and safer.

Action 10.3.10: Provide sufficient pedestrian amenities, including benches, litter receptacles, kiosks and shade structures, to encourage individuals to take a slower pace and have a look around.

Action 10.3.11: Invest in additional lighting and security utilities, such as call boxes, that will give the sense of safety to citizens and visitors.

Action 10.3.12: Improve vehicular access and circulation within and around various districts.

Elements of Image

Individual areas of a city are divided or connected to other areas of the city. Each area, such as the Downtown or a neighborhood, contains specific visual elements, which either contribute to or detract from their visual quality. We can identify specific elements that affect visual quality. Elements that impact the visual image of a city include landscape, paving and walks, fences and buffers, lighting, signage, art and utility services.

By understanding the role these elements play, we can explore design options, which will enhance the visual image of Bossier City.

Landscape

The natural environment is the physical setting for Bossier, but significant improvement can be made with landscaping. Elements include trees, shrubbery, plantings, seasonal flowers, lawns, and irrigation. Modification to the ground surface is often beneficial. Berms increase elevation and provide screening and sight line breaks. Ponds and water features can also bring great visual benefits.

Street trees are a simple but significant addition to the visual environment. They create order, establish boundaries and improve orientation. And of course, they look nice and provide shade.

Landscape can be used on a large scale to improve the visual image for much of Bossier's public space. Transportation corridors will benefit significantly from a consistent enhancement with landscaping.

Paving and Walks

Some form of paving or walk surface covers a significant portion of the ground surface in a city. Parking lots and roadways dominate a considerable portion of Bossier City. Some areas have gravel surfaces, or suffer from deferred maintenance. Paving materials are primarily asphalted and concrete. These materials are often taken for granted, but consistent finish and color along with decorative accents when appropriate, can make a big impact on the visual environment. Bossier has a wide variety of paving finishes, but the city would benefit from consistent application and maintenance. Decorative treatment such as color, or materials such as washed gravel or brick pavers will make effective improvements in the visual quality of paved areas.

Pedestrian paths are often over looked, but sidewalks, running, and bike paths are effective visual improvements. Sidewalks in particular vary in width, color, and finish. Also, there are many areas without sidewalks. Not only can walks contribute visually; they provide access for pedestrian circulation, which is vital to the success of business areas like the Downtown or the casino areas.

Fences, Buffers and Screens

Divisions between areas of varied use are important. Neighborhoods for instance, should be separated from adjacent roadways or commercial areas. These divisions protect both use areas, providing a visual screen from one to the other.

Fencing is the most common method of separation between use areas. Fencing is very effective and can be an aesthetic improvement. Other elements used for dividing functional areas include screens and landscape buffers.

These elements can play a significant role along Bossier's heavily traveled roadways. Separating vehicular traffic visually from neighborhoods and schools are common in many cities. Bossier can benefit from the screening of commercial and industrial areas from visitor and local traffic so the driver's visual image is focused on the roadway and surrounding corridor. This assumes the corridor is aesthetically treated. In particular, commercial loading docks, industrial yards and storage functions can be screened at the rear of businesses to protect surrounding areas from view of their operations.

Lighting

Privately owned lighting features in commercial and residential developments have a strong impact on the visual environment. Signage lighting in particular can dominate a cityscape at night. Privately owned lighting features can be managed by zoning restrictions and building standards. And, sign lighting can be managed in the same way. Bossier should consider privately owned lighting when the city establishes or updates building standards and zoning regulations. Like other building elements, lighting should be planned to be effective, and aesthetically pleasing.

Public area lighting provides a significant opportunity to impact the visual quality of a city. Not only does lighting create mood and contrast at night, but the lighting elements themselves, the poles, bollards, standards and heads can be architectural in character and establish a design intent or theme.

Public lighting should be planned for safety and functional effectiveness, but the lighting units should be selected to support the general visual character of the area they

serve. Special use areas such as the Downtown or the riverfront area near the casinos can benefit from lighting elements that correspond in design to the character of the area. The design team cautions, however, that public lighting units are a long-term investment, and discretion should be used when selecting specific elements. Designs should have a timeless quality and be attractive 20 years after they are installed. The team recommends that privately developed projects have the most trendy design elements, and that public areas support private design themes but maintain some distance and restraint from the latest styles and fads.

In addition to lighting function, lighting standards and poles can carry signage and decorative banners. In public areas where signage and decorative elements are important, the city should incorporate these elements with the lighting scheme to unify the visual impact and provide some cost efficiency.

Signage

Without question, visual element most frequently discussed during the Community Meetings was signage. Citizens noted the variety and, in some cases, the poor quality of commercial signage. With city growth and the emergence of the riverfront casino entertainment area, the need for clear directional signage has not kept pace with development.

Advertising and business signage presents a formidable impact on the visual environment of Bossier City. A long history of strip commercial development, along with minimal controls over size, type and location, have created a wide variety of signage elements. The condition of commercial signage varies as well. A significant number of signage elements observed by the design team were outdated and in poor repair.

The team observed a number of signage categories to address:

Traffic and Directional Signs

These sign elements are critical for vehicular circulation and wayfinding. Visitors, in particular, need simple cues to direct their travel and aid in navigation to specific destinations. Much of this signage is under the control of the State or Federal highway systems. But, Bossier City should take steps to evaluate the effectiveness of the traffic signage system, and seek resolution to conflicts and standardization.

Festival and Decorative Signs

The city has a number of opportunities to incorporate decorative signage, banners, flags and other signage elements into public spaces. These decorative elements provide queues to festivals and activities, mark boundaries, gateways or delineate byways, and add visual interest to other design elements. Planning for specific enhancements should consider these signage opportunities in coordination with other visual elements in the city.

Commercial and Advertising Signage

The issues surrounding this type of signage has been noted above. Residents are very conscious of the commercial signage issues in Bossier. Addressing the issues of signage control, and revising existing signage. Steps must be taken to standardize commercial signage, allowing business owners the opportunity to promote their companies and products, but providing some visual continuity to the city.

Utilities

Services such as electrical power, cable television, and landline telecommunications are typically routed above ground on poles or tower structures. These services are vital to a city and it's business economy. But, above ground utilities are a visual barrier, can be dangerous to the public, and require maintenance of trees and landscape that may interfere with the line routing. This puts above ground utilities in direct conflict with improvements like street trees. Routing public utilities underground is becoming a common method for dealing with these services in urban environments.

Many new developments incorporate underground utility service. There is a greater first cost to this method of service routing, but the visual impact is profound. Bossier City should promote underground utilities in new developments, and consider re-routing above ground utilities in areas where demands on visual impact are significant. Special use areas such as the entertainment areas of the Riverfront, and in Bossier's Downtown area will benefit significantly from underground service.

Public improvements to major corridors should consider underground utilities as well. Upgrades to corridors such as Barksdale Boulevard would have limited success unless utilities were re-routed. Often, street widenings have

moved traffic and curb lines very close to exiting power poles. One example is in Downtown where power poles are immediately adjacent to the roadway. With greater traffic volumes and speeds, both vehicles and power structures are subject to damage.

Art and Architecture

Art and architecture are the most visual elements in the built environment. Residential architecture typically accounts for the highest volume of construction. But private business, and public service facilities are often the most visible to both residents and visitors. Along with architecture, the landscaping and artwork provide the predominant visual impact of a community. Bossier City must give appropriate attention to these elements, and develop strategies for their management.

Casino

Public art is a common enhancement used in many cities to enhance visual quality. Bossier should expand its efforts to incorporate art in landscape and public areas. Art elements can include sculpture, paving mosaics, building graphics, and lighting projects. Private developments can include art pieces too, and incentives from the city can promote the inclusion of art into private projects. Bossier should set public examples of good community artwork, and challenge private developments to continue the standard.

Public Architecture

Architecture in the public domain is an important part of any community's image. Bossier has a civic center and public library which are appropriate in scale and appearance. The new arena has made a significant contribution to the quality of Bossier's public image. There are a number of other public facilities in the city, but some are aging and due for replacement. Restoration of older public facilities is admirable, but should be undertaken only if the structure can continue to make a significant contribution. The East Bank Theater is a successful restoration project. Some have even considered renovation of the Old Bossier City Hall. Projects like these capture Bossier's history and heritage, and add complexity to the built environment that new development alone can not offer. City leaders should continue to search for projects that celebrate the community's history.

New facilities offer the greatest opportunity for improved image. The Bossier Arena is a prime example of how new public construction can re-direct the image and character of a neighborhood and the city as a whole. This project and future public facilities are important tools for influencing community image. City leadership should take a proactive position, and demand high quality design for future work. Any new public facilities should continue the trend of quality design established by the arena and civic center.

Private Architecture

Private development has contributed to the city's image as well. Much of Bossier's commercial buildings have historically been retail in nature. The primary roadways are lined with street fronting retail. And, there are a number of large retail centers and a regional shopping mall. These existing structures dominate the visual image of Bossier. Concerted effort should be made to establish some quality standards. Better results will be gained by raising the public consciousness of the visual environment, and rewarding private property owners who take steps to improve their contribution to Bossier's image.

New private development has centered around the casino and hotel projects on the Red River. These are monumental in scale and are rapidly becoming the predominant architecture in Bossier. Although no new

casinos are expected soon, supporting development around the gaming boats will continue to expand.

Casino

Growth along the Riverfront, in conjunction with the casinos, will likely be entertainment in nature. Bossier must take an active role in guiding these projects.

The racetrack is also an entertainment venue, and planners indicate new supporting development at this location on Bossier's eastern side. Here too, city leaders should work to influence the quality of these very visible private projects, and take advantage of new construction to improve the city image.

Summary

Identifying elements in the built environment that significantly influence visual character is mostly common sense. Landscape, paving and walks, fences, lighting, signage, art and architecture, and utilities are the image elements that make the most visual impact. This chapter has suggested general ideas for improving each. The following section of the chapter takes these elements in context, and suggests ways in which they can be changed or manipulated to improve the visual character of Bossier.

Image Concepts

This chapter provides an overview of the visual environment in Bossier City. Key issues have been identified along with a summary of the elements, which create that environment. The following section deals with design options. The team has explored some examples to show how changes to design elements can create a significant difference in the appearance of Bossier's image. These design options are intended to be examples of what is possible. Final design solutions require significant time and input from local leadership.

There are two realms where changes can occur. First, is private property, the buildings and grounds owned privately. Second is the public realm, the space owned by the City or other governmental agencies.

Private Property

Property owned privately by individuals or businesses is a major part of the visible environment. Control of visual quality can be achieved to some extent by zoning codes and building standards. Areas, such as neighborhoods, have fairly tight constraints on the form and materials used in construction. Other areas, particularly the older strip retail, have few restraints. In some cases there may have been no restraints at all when a specific property was constructed. Dramatic changes to the appearance of existing private property are difficult to achieve through governmental regulations. New private development can be influenced through zoning codes and standards.

Retail Image

The best strategy is to change private landowner values. This is best achieved by demonstrating the impact of visual improvement, and by generating public support for quality visual image. City leadership can set examples for

private landowners by demonstrating image improvements on public property.

Public Property

The citizens of Bossier have their best opportunity to influence the visual environment by improving the appearance of public lands and facilities. Public parks can be a primary target for this renewal effort. Another very visible part of Bossier's environment is the public rights-of-way. Streets, roadways, and major traffic corridors offer significant opportunities for enhancing visual quality. Bossier should take aggressive steps to utilize these areas.

The design options offered in this chapter are intended as recommendations for general approaches to solving image issues. The concepts shown here will demonstrate some possible solutions to existing image problems. The concepts are not intended to be final or even complete solutions. Each specific location or area of the city should be addressed in detail to create design solutions appropriate to both the location and the larger context of the city.

To organize the design concepts, the team grouped issues into categories that address specific segments of the community. The following examples illustrate existing conditions and show the visual impacts made by the design concepts. Examples are grouped as follows:

- Corridors and Roadways
- Gateways
- Neighborhoods
- Commercial Areas
- Riverfront Entertainment Area
- Downtown
- Teague Parkway
- Arena Entertainment Area

Corridors and Roadways

Traffic circulation routes are one of the primary form givers to Bossier's visual environment. These features provide significant public land area, which can be enhanced. Enhancement of corridors and roadways is common practice in a number of areas throughout the U.S. Design concepts, which have application to Bossier, include:

- Street trees and large plantings;
- Roadside wildflower plantings;
- Screening adjacent commercial and industrial areas;
- Screening and fencing adjacent neighborhoods;
- Commercial signage controls;
- Unification of signage and wayfinding features;
- Standardization of lighting elements;
- Addition of banners and seasonal flags;
- Curb cuts and access control;
- Unified sidewalks and curbs;
- Pedestrian amenities like benches and trash bins; and,
- Underground utility placement.

Gateways

Gateways have become common design elements used to define the entries to residential developments. Gate structures are often brick, stone, or other solid materials to imply significance to a location. Gates define the entry or boundary, and are important features for wayfinding. Bossier City can benefit from gateway elements at three scales. First, develop gateways into the city proper. Secondly, develop gateways to neighborhoods or larger development areas to improve aesthetic interest and support wayfinding.

Neighborhoods

There are a wide variety of neighborhood types within Bossier City. A significant number of new developments are located to the north, while a number of mature neighborhoods are located to the south. In addition, there are neighborhoods that stretch along the East Side of Bossier between Barksdale and the Red River.

There is variety in the age and scale from one neighborhood to another. Yet all Bossier Neighborhoods need similar conditions to flourish and maintain their property values. First, neighborhoods must have identity and character to encourage a sense of ownership for the residents. This can be established with building standards, and consistent common area features such as signage, paving and lighting. Next, neighborhoods must be protected from adjacent uses that are not compatible. Protection can take the form of gateways, fencing and landscape buffers. Neighborhoods adjacent to major roads or rail can benefit from sound barriers as well. And finally, neighborhoods need amenities either within their

boundaries, or immediately adjacent. Amenities include parks, recreation facilities, schools and convenience shopping.

Many of the newer residential areas benefit from these features. Bossier should consider each neighborhood, and provide resident planning and input to help each area benefit from the same opportunities.

Commercial Areas

Street frontage retail is a predominant development theme in Bossier City. But, there are large numbers of new retail centers, light industrial business, and warehouse showroom operations. Both existing commercial areas and new developments need attention. Building and signage standards help manage the visual appearance of structures. Zoning requirements establish parameters that protect the design integrity of the city.

As centers of commercial activity shift with changing residential development and traffic patterns, existing commercial structures decline in use and appearance. Examples of this trend can be seen along parts of Barksdale Boulevard south of I-20 and on Texas Street. Other transitional areas exist throughout Bossier. Changing land use patterns are always a challenge to the visual image of a city. Conditions similar to Bossier's exist in every community in the U.S.

The root of this issue is societal: the changing of commercial activities and routes of circulation. Little can be done visually to stop these trends. However, much can be done within the public domain to sustain reasonable image and appearance. Zoning enforcement is the start, but Bossier must work to maintain good aesthetics in public areas, along major corridors, and on public grounds. Regulations along with proactive management of public spaces are vital. Together, these actions can sustain a quality visual environment and continue the viability of businesses and land values for longer periods of time.

Riverfront Entertainment Area

The Bossier Riverfront has undergone significant change over the last decade. Changing from a backwater, the area has seen the addition of Red River channelization, the Teague Parkway, and most importantly, riverboat casinos. Bossier is now in the process of turning it's face back to the river. Currently, the entire Riverfront is viewed as a single use area, but the design team sees three separate functions along the length of this area. For this reason, image concepts are divided into three groups, the Entertainment Area, the Parkway, and the Arena Area.

Adjacent to Bossier's Old Downtown, the Entertainment area is dominated by riverboat casinos. Each of these casinos supports gaming, dining, shopping, entertainment, and hotel accommodations within their respective properties. Each has significant structured parking to support their operations. The casinos are competitive, but the entire district would benefit from strong pedestrian circulation paths, and the injection of public grounds to connect these separate operations into a true district. In addition, other private development is being planned in this area to take advantage of the high volume of visitor traffic.

Bossier should coordinate the development activities so there is consistent quality and character. And, the city should provide the framework of circulation and services that tie the area together, bringing a higher benefit from the combined activities.

Downtown Bossier

Much has been made of Bossier's Downtown area. Discussions with focus groups have confirmed that a true and viable downtown business district does not exist. Historically, Bossier's City Hall functioned from a building on Barksdale Boulevard. Other merchants and financial institutions made their home nearby, however, many of these features are now gone.

But citizens feel strongly about the old city center, and they want to see a return of the original focus. Image enhancement is important in supporting the re-growth of an existing area, but people and activities are critical to success. Bossier leadership must bring in new businesses and corporate headquarters, and inject a significant level of commercial activity into the now quiet area. Without a higher volume of people conducting business, there will be no "Downtown".

The design team studied some concepts for image enhancement that can give the old downtown a sense of identity. The adjacent casino area and the new riverfront entertainment district under development will set

aesthetic directions of their own. The Downtown should acknowledge it's riverfront heritage, but avoid trendy themes by using a professional, commercial character, reflecting Bossier's 21st Century business sense.

Arthur Ray Teague Parkway

The Parkway, the casino entertainment area, and the arena area have all been defined as a "riverfront" district. All three areas front on the Red River, and promote entertainment in some form, yet each area has a unique character. The design team sees these as three distinct areas, connected to and by the river, yet each independent in use and character.

The Parkway is a major circulation route from South Bossier and the Arena, north to Downtown and the casinos, making it the unquestionable link between Bossier's two primary entertainment venue attractions.

The Parkway itself has a completely different character than the areas at each end. An open landscape fronting the river, the Parkway exhibits a natural setting for outdoor recreation. There is an existing jogging path and boat launches as well as significant green belts for open-air activities. The roadway provides access, but also limits accessibility from the east, protecting the green belt from encroachment. Bossier should support the Parkways connective function, and at the same time protect it's natural setting for use as Bossier's largest parkland and outdoor activity area.

Arena Entertainment Area

The third section of the Riverfront District is the Arena Entertainment Area. The design team has identified this as a distinct function, connected by the Parkway to the separate but related Riverfront Entertainment Area near Downtown.

The Arena can house a variety of sporting and performance programs, as well as serve as a major assembly hall for the community. At the southern end of the Parkway, and surrounded by large tracts of vacant land, the Arena appears to be disconnected from other entertainment activities. However, its programs are different from the casino activities. So its separation is not a deficiency and in fact, this southern location provides a balance to the city's growth patterns.

Other development is sure to follow the Arena, and Bossier should encourage compatible activities on the surrounding property. Other athletic facilities might benefit from an adjacency, and there is an opportunity for restaurants and other entertainment support. Development of this entire area can be positive for the city. At the same time, care must be given to protect the adjacent residential areas from encroachment of noise, traffic and nighttime lighting.

The scale of the Arena, and the area around it is grand. Visual enhancements can not afford to be tentative. Landscaping, gateways, fencing, and lighting features must be scaled to address this spacious character. The area calls for well-defined avenues and large-scale street trees. Gate elements should be very big and incorporate significant landscaping to support large pylons or other architectural features.

Figure 10.1
Boulevard Improvements, Before and After

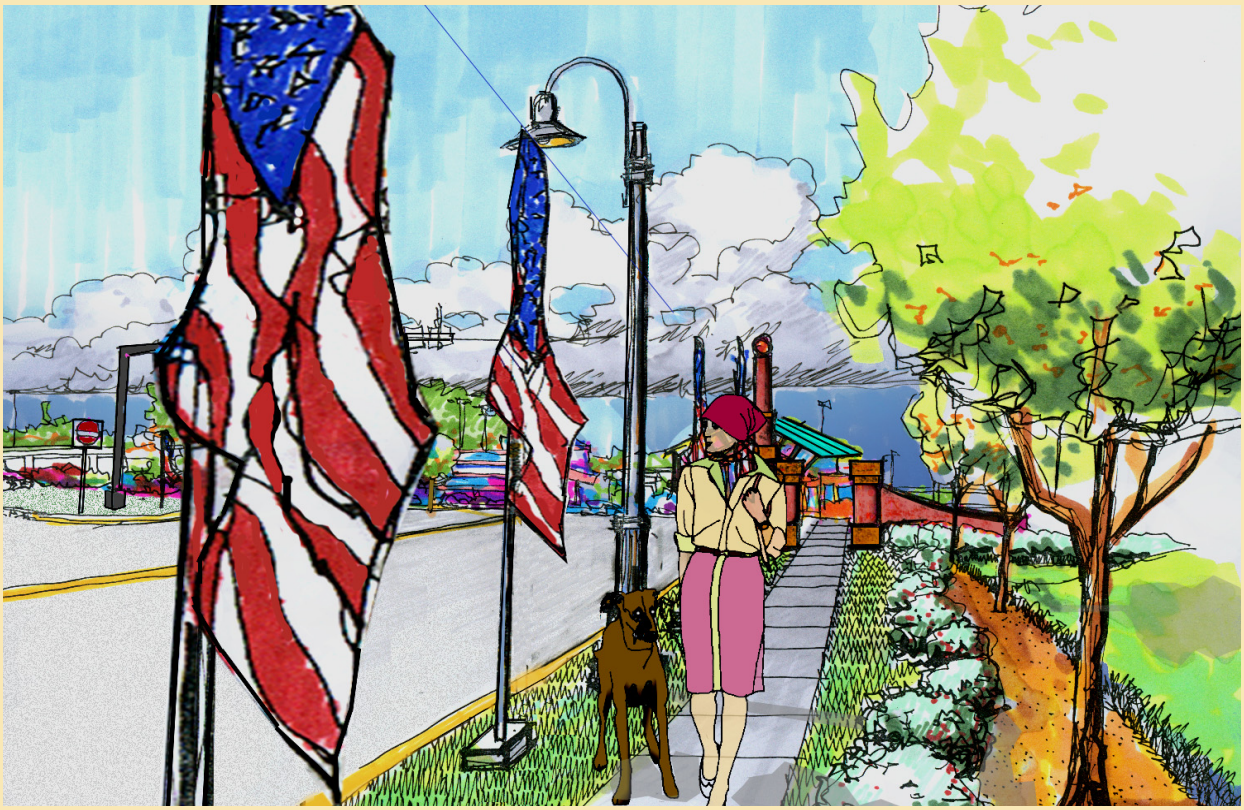


Figure 10.2
Jimmie Davis Bridge Entry Improvements, Before and After

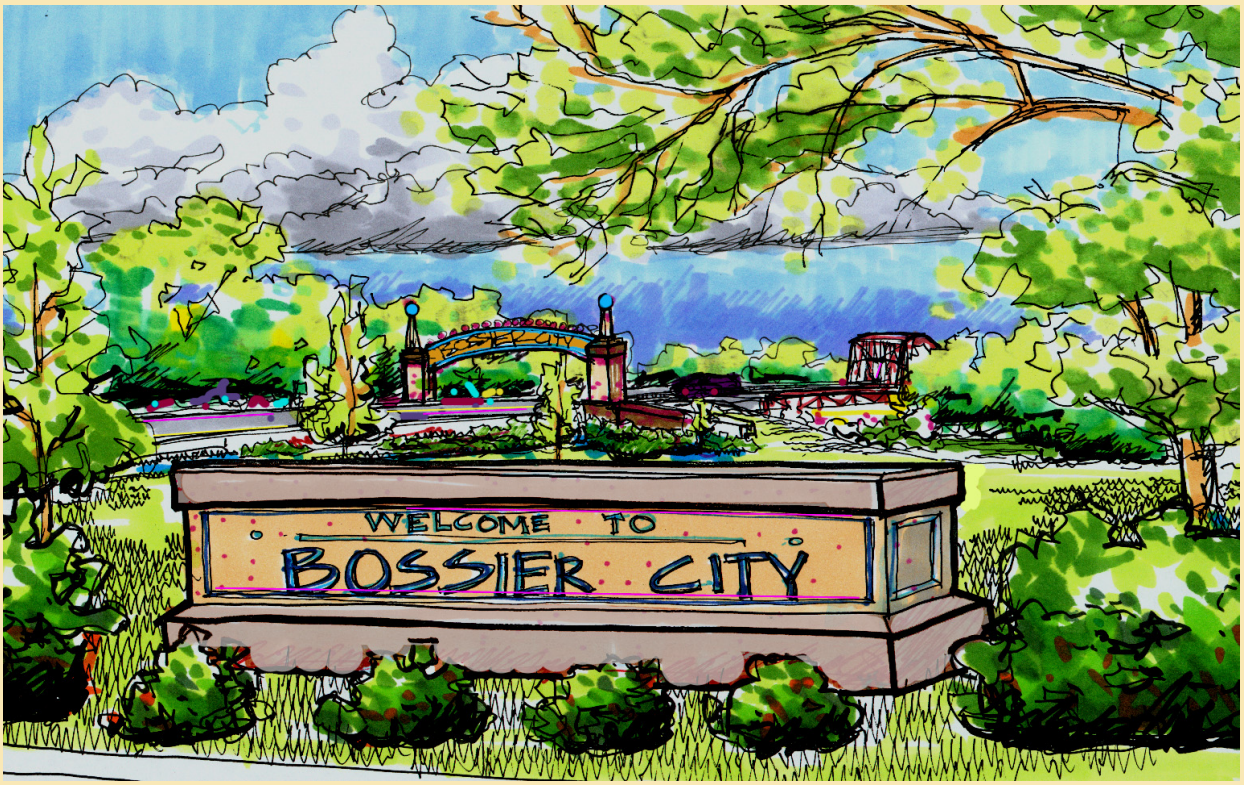


Figure 10.3
Neighborhood Improvements, Before and After

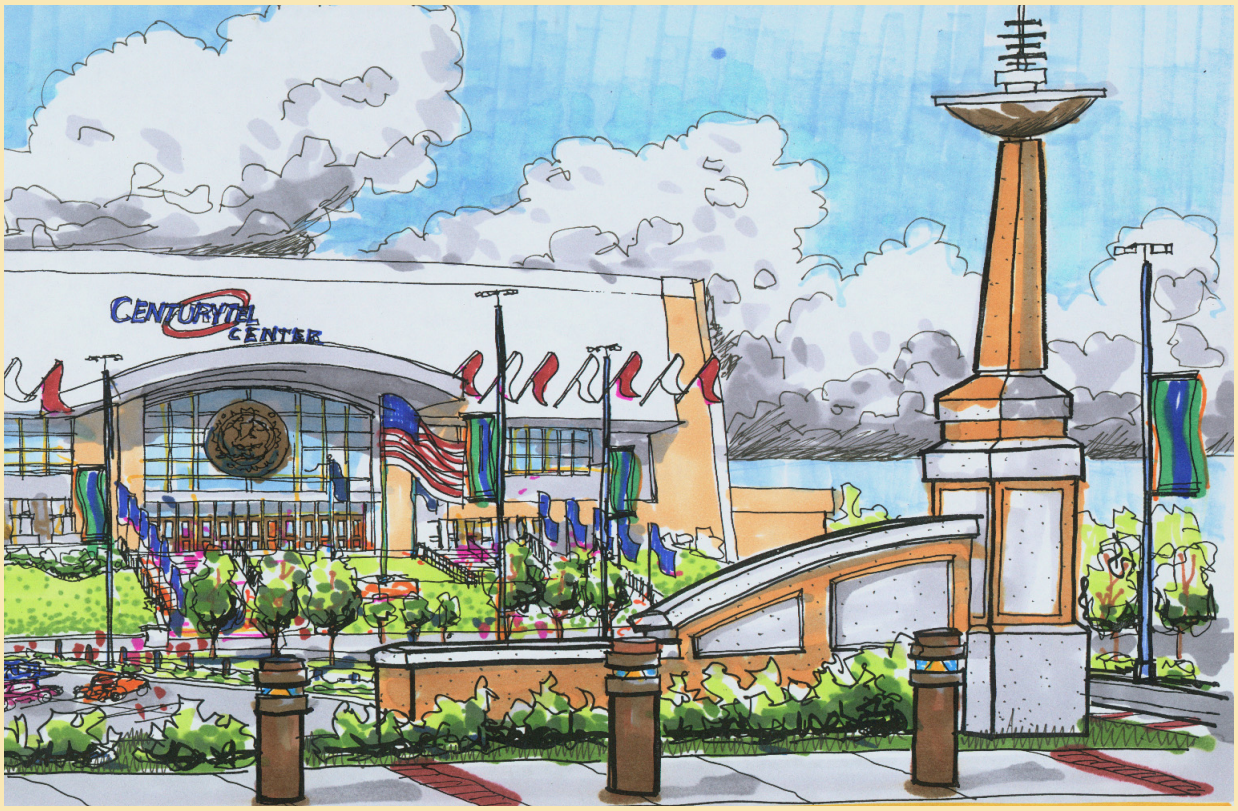
Figure 10.4
Commercial Development Improvements, Before and After

Figure 10.5
Riverfront Development Improvements, Before and After

Figure 10.6
Downtown Improvements, Before and After

Figure 10.7
Arthur Teague Parkway Improvements, Before and After

Figure 10.8
Arena District Improvements, Before and After



Facilities & Education

Through the advancement of this Master Plan, the Bossier City-Parish Metropolitan Planning Commission (MPC) and Bossier City and Parish are committed to ensuring adequate public facilities and educational resources necessary to support the future growth and sustainability of the Bossier planning area. Doing so also results in a safe and healthy environment that protects and enhances quality of life features for residents and visitors to the Bossier area.

Public facilities and services are often taken for granted. Yet, without coordination and conscientious planning for future growth, facilities and services may be interrupted or slip below standards and community expectations. The purpose of the Facilities and Education element of the Master Plan is to analyze the sufficiency of the area's public facility investments to meet the changing service demands of the projected population into the 2020s. Further, this element identifies future community facilities needs and priorities, measured against current demands, to make generalized recommendations for the locations of future facilities as enumerated through a series of goals and objectives supported by clear statements of action.

> *A **public facility** is "a use conducted by, or a facility or structure owned or managed by, a publicly funded entity that provides a governmental function, activity or service for public benefit."*
>
> *- Draft 2001 Truckee Meadows Regional Plan*

Over the 20-year planning period, Bossier's population is projected to shift and expand. As such, it will become increasingly important to ensure that public facilities and the education system serve the needs and expectations of the population in a timely, orderly and efficient manner. The provision of public facilities and education in Bossier is linked to other elements of the Master Plan since these facilities will depend, in part, on projected population growth, future land use plans and annexation strategy, parks and recreation planning, and other factors. In addition, facility needs will feed into the Implementation strategy, in which multi-year capital improvements programming is also highlighted. Planning for public facilities should especially be coordinated with the Future Land Use Plan as it reflects the area's desired growth pattern and will influence the location and provision of public facilities and related services.

Public Facilities Considered

Generally, public facilities include infrastructure and services provided by various public agencies for the benefit of Bossier residents. For the purpose of this Master Plan, public facilities and services include the following: police protection, fire protection, library services, municipal and Parish operations, and public schools. Utilities such as water, sanitary sewers and storm sewers are another important type of public facilities. These "hard" infrastructure facilities are thoroughly addressed in Chapter 8 – Utilities and Infrastructure.

Key Facilities and Education Issues

Central to the comprehensive planning process was public participation, through which comments were received and merged with findings from the Master Plan Advisory Committee (MPAC) and key person/agency interviews. The issues that came to the forefront focus on enhanced and efficient service delivery through the community's network of public facilities and schools. These are displayed in **Figure 11.1 - Public Facilities**.

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Area Profile
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Market Assessment
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Housing
Image & Design
Facilities & Education
Policies & Strategies
Implementation

Improve Law Enforcement Resources

Agencies organized to provide police protection and ensure public safety in the Bossier planning area are well equipped and generally function to community expectations. Most of the public safety challenges are found in the outlying areas of the MPC Planning Area where population growth rates are outpacing that of the City.

Bolster Fire Protection Capabilities

While fire protection capabilities in Bossier City have received superior ratings, volunteer departments in unincorporated areas of the Parish are challenged by limited resources and rapid growth. As a component of fire protection, emergency medical services are based in each of the City's nine fire stations and some of the rural volunteer stations.

Maintain Quality Library Services

The Bossier Parish library system is considered a valuable community resource. Detailed plans to expand the system within the MPC Planning Area have already been identified to enhance facilities and services in the future. Continued public and patron support of the library system's services should enable it to implement future plans and develop innovative methods to complement public school system facilities and resources.

Enhance Access to Services

Unique for a community of this size, all of Bossier City's municipal functions are in an accessible, centralized location. However, many of the "tenants" are experiencing space constraints. Given projected population growth, long-range facility plans should be developed to ensure that these facilities continue to meet the needs of Bossier residents and an expanding community.

Target Education Facility Needs

The quality of education offered to Bossier's young people continues to be a top priority throughout the community. Education has a prominent role in the future of the region, providing a trained and educated workforce. Long-range planning by the Bossier Parish School Board in concert with Bossier residents and City and Parish government is essential to be sure that the number and distribution of facilities – and appropriate maintenance of existing sites – is adequate for fluctuating school age populations and an evolving urbanization pattern.

Public Facility and Education Plans, Related Studies and Regulatory Provisions

- Community Policing Assessment Report (2000) – Completed by the Louisiana Community Policing Institute, this report is a comprehensive assessment of the Bossier City Police Department, designed to assist in the further implementation of community policing methods.
- "The Bossier Central Library Master Plan 2001" – This plan was developed to create additional space and services in anticipation of projected growth of the Bossier community.
- "Bossier Parish School Board District Improvement Plan – Goals 2000-2003" – This plan was developed by the BPSB in conjunction with the District Improvement Plan Council to "set forth goals for the advancement of education" in Bossier. It is to be evaluated and updated annually.

Facilities and Education Goals, Objectives and Action Statements

The following summary of goals is designed to address the stated issues and support the independent strategic plans maintained by various entities responsible for public facilities and services in the MPC Planning Area. Each expanded issue is followed by a goal, and then objectives and actions were developed as a result of comments received through stakeholder input in various public forums, staff interviews and field observation. The statements are intended to provide a framework for implementing long-term strategies for the provision of adequate public facilities and education infrastructure. In summary, the goals include:

- Expand staffing and facilities as needed to maintain high standards for law enforcement functions in the MPC Planning Area.
- Provide for facility maintenance and development, staff enhancement and equipment acquisition needed to meet the long-term fire protection needs of the MPC Planning Area.
- Support expansion of the Bossier Parish Library System and its efforts in providing educational and

informational services to residents within the MPC Planning Area.

- Develop and implement a long-range facilities plan for municipal operations to address future space needs and ensure access to all residents.
- Support the Bossier Parish School Board and other education institutions in providing quality education opportunities, including school facilities that are adequate to handle fluctuating enrollment projections.

Improve Law Enforcement Resources

Ensuring the public's safety is one of the primary functions of local government and is a basic allocation of taxpayer dollars. The effectiveness of law enforcement is highly correlated to quality of life assessment. Since the MPC Planning Area encompasses portions of Bossier Parish beyond the corporate limits of Bossier City, multiple service providers or agencies are involved. Three law enforcement agencies function to "serve and protect" within the Bossier planning area: the Bossier City Police Department, Bossier City Marshal, and the Bossier Parish Sheriff's Department. The Louisiana State Police (LSP) also serves in a more limited capacity. Each agency has a specific role, but there is some overlap requiring constant communication and coordination. Service areas for the Bossier City Police and Marshal's offices are exclusive to the corporate limits whereas the Sheriff's department covers the entire Parish. LSP focuses on enforcement of laws along the area's network of Interstate Highways. From the perspective of metropolitan-level planning, communication is paramount when each agency is identifying anticipated needs.

Goal 11.1: Expand staffing and facilities as needed to maintain high standards for law enforcement functions in the MPC Planning Area.

Objective A: Ensure that area law enforcement agencies have adequate personnel to meet the current and future needs of the community.

Objective B: Ensure that area law enforcement agencies have adequate equipment and facilities in order to continue providing quality services to residents.

Objective C: Provide continuous training and education programs for law enforcement personnel.

Objective D: Increase community involvement in crime prevention efforts to empower residents to make a positive impact toward the safety and security of their area.

Objective E: Continue implementation of policies, programs and services based on national standards.

Action 11.1.1: As the population continues to grow, periodically review the staffing needs of area law enforcement agencies and hire additional qualified staff to accommodate growth and increased demands for service.

Action 11.1.2: Maintain equipment inventories and identify replacement and acquisition needs in advance to ensure appropriate budgeting.

Action 11.1.3: Support regular software and equipment upgrades to ensure that personnel have access to state-of-the-art technology.

Action 11.1.4: Integrate Geographic Information System (GIS) applications to spatially record and analyze area crime statistics, and share data across agencies to address findings and better target resources.

Action 11.1.5: Continue regular training of police personnel to meet all applicable state and national standards and certifications.

Law enforcement activities in the MPC Planning Area are addressed by multiple agencies, with each committed to teamwork and preserving and enhancing Bossier's quality of life.

Action 11.1.6: Hire a full-time Training Officer and implement a citizen police academy program.

Action 11.1.7: Take advantage of management and personnel training available through the National Emergency Training Center and the Federal Emergency Management Agency (FEMA).

Action 11.1.8: Monitor participation and benefits of the ride along program and promote or expand as appropriate.

Action 11.1.9: Consider initiating an area residence on watch (AROW) program in apartment complexes.

Action 11.1.10: Maintain communications with neighborhood associations and create neighborhood watch programs wherever feasible.

Action 11.1.11: Develop opportunities/activities to enhance relations between youth and law enforcement.

Action 11.1.12: Consider pursuit of accreditation through the Commission on Accreditation for Law Enforcement Agencies.

Action 11.1.13: Encourage inter-jurisdictional cooperation among law enforcement and corrections agencies to further develop, where practical, shared services and facility use.

Action 11.1.14: Develop community benchmarks and program performance measures to evaluate police protection effectiveness. Such performance measures might include response time to calls, crime solution rates or other methods to determine actual effectiveness.

Action 11.1.15: Require development of comprehensive emergency management plans consistent with this Master Plan.

Action 11.1.16: Commit to coordination between the MPC and law enforcement entities to anticipate the need for new facilities resulting from growth and trends.

Bolster Fire Protection Capabilities

Overall, fire protection in the MPC Planning Area is considered good. Bossier City's fire protection resources exceed those of the volunteer departments serving the unincorporated portions of the planning area. There are numerous opportunities for inter-jurisdictional cooperation and sharing of resources, training and equipment. Over the years, the community has demonstrated a strong commitment to good fire protection as evidenced by awarding of the Class One fire protection rating to the Bossier City Fire Department.

Goal 11.2: Provide for facility maintenance and development, staff enhancement and equipment acquisition needed to meet the long-term fire protection needs of the MPC Planning Area.

Objective A: Ensure the Bossier City Fire Department and other area fire agencies have adequate resources and facilities to meet the needs of a growing population and expanding service areas.

Objective B: Pursue supplemental funding through grants and other means to reinforce agency missions.

Bossier City's Fire Station No. 9 is located at 2621 Brownlee Road in north Bossier. It is the City's newest station.

Objective C: Promote fire prevention and expand public outreach and education programs.

Action 11.2.1: Review fire staffing needs periodically and recruit additional employees as resources allow to meet increased demands for fire protection services.

Action 11.2.2: Regularly review service areas and response times, and plan and construct additional fire stations in appropriate locations.

Action 11.2.3: Support regular technology and equipment upgrades to keep pace with technical innovations as well as to serve a growing area effectively.

Action 11.2.4: Continue and expand community programs such as CPR training, Fire Prevention Week activities, school programs, and fire extinguisher classes.

Action 11.2.5: Focus urban growth in areas served by a fire protection district or within the Bossier City corporate limits.

Action 11.2.6: Encourage continued inter-jurisdictional cooperation among fire districts, including sharing of equipment and facilities and eventual consolidation of districts, where practical.

Action 11.2.7: Encourage development of community benchmarks and program performance measures to monitor outcomes from public safety efforts.

Action 11.2.8: Prepare comprehensive emergency management plans consistent with this Master Plan.

Action 11.2.9: Coordinate between the MPC and the various fire departments to anticipate the need for new facilities resulting from growth and trends.

Maintain Quality Library Services

The public library system in the MPC Planning Area is a Parish government function. The majority of Bossier Parish's population is situated within the Planning Area and, so too are most of the library facilities. The library system underwent an aggressive expansion program several years ago and has already identified needs and plans for another round of facility expansions proposed to begin in 2003. The facilities are well used and considered to be a focal point of each neighborhood.

Goal 11.3: Support expansion of the Bossier Parish Library System and its efforts in providing educational and informational services to residents within the MPC Planning Area.

Objective A: Improve accessibility, awareness and use of the public library system.

Objective B: Address the current and future space requirements of the library system.

Action 11.3.1: Continue to pursue grants to finance technology improvements, including the purchase of additional computers.

Action 11.3.2: Continue to provide sufficient staffing and budget resources to enable the library system to meet Louisiana Library Association standards.

Bossier's library facilities are geared to meet the needs of a growing population with expanded facilities at the Central (above), Aulds and East 80 branches.

Action 11.3.3: Consider adjusting library hours as demands for services change.

Action 11.3.4: Seek opportunities to associate with agencies that have a significant public outreach/education component, such as the City Parks & Recreation Department or the Bossier Parish School Board, to implement coordinated activities related to the Red River and Bossier's extensive inventory of natural resources.

Action 11.3.5: Implement facility expansion plans identified in the *Bossier Central Library Master Plan - 2001*.

Action 11.3.6: Continue to participate with the program that distributes library cards to second graders throughout the Parish.

Action 11.3.7: Identify school library needs and seek to address them in a coordinated fashion through either system.

Action 11.3.8: Hire additional staff to provide better training and service for computer / Internet workstations.

Action 11.3.9: Encourage inter-jurisdictional cooperation, sharing of equipment and facilities, and consolidation of districts.

Action 11.3.10: Ensure that the expansion of library capacity proceeds at a comparable rate with that of residential development and demographic trends.

Action 11.3.11: Ensure that land use regulations allow siting of library facilities in locations convenient and accessible to residential areas.

Enhance Access to Services

The provision of adequate public facilities must be carefully weighed with other elements of this comprehensive planning effort, particularly the land use and transportation elements. Moreover, future needs must be properly anticipated to budget appropriately and to identify opportunities for inter-jurisdictional cooperation to stretch current resources.

Goal 11.4: Develop and implement a long-range facilities plan for municipal operations to address future space needs and ensure access to all residents.

Objective A: Establish appropriate Level of Service standards for public facilities and services.

Objective B: Implement a Capital Facilities Plan which ensures that public facilities and services meet the established Levels of Service.

Action 11.4.1: Determine the type and quantity of capital improvements that are needed to eliminate existing deficiencies and maintain desired Levels of Service.

Action 11.4.2: Establish priorities among capital improvement needs through annual review and amendments to the Capital Improvement Plan (CIP).

Action 11.4.3: Monitor the implementation of the Capital Improvement Program and area development trends to ensure that the Land Use and Transportation elements and capital facilities planning are coordinated and consistent.

Action 11.4.4: Finance capital improvements and manage debt consistent with the needs and priorities identified through the Master Plan.

Action 11.4.5: Provide public facilities and services – or accept their provision by other entities – only if Bossier City/Parish or the other entity is able to pay for subsequent operation and maintenance costs.

The implementation of plans to develop the Municipal Complex was ambitious, but effectively accomplished, with good planning and anticipation of community needs.

Target Education Facility Needs

The provision of adequate public facilities for education is of incalculable value to Bossier. Primary and secondary schools that are neighborhood oriented are key contributors to the creation and long-term sustainability of the "community." Community involvement in the schools enables the children and educators to thrive. In the MPC

Older school facilities are sometimes ill-equipped to address shifting populations, and portable buildings help fill the gap.

Planning Area, the Bossier Parish School Board (BPSB) administers public education functions. Relatively few students attend private schools; however, Christ the King School is located in central Bossier City. Although post-secondary education opportunities are more regional in nature, with numerous institutions located throughout the Ark-La-Tex, Bossier Parish Community College (BPCC) is

located in Bossier City and is expanding to fulfill its vital mission.

Goal 11.5: Support the Bossier Parish School Board and other education institutions in providing quality education opportunities, including school facilities that are adequate to handle fluctuating enrollment projections.

Objective A: Ensure coordination with the BPSB so that school sites and facilities serve the educational needs of Bossier area residents while also meeting neighborhood compatibility objectives (traffic, parking, recreation, building layout, etc.).

Objective B: Include the community in the facility planning process.

Action 11.5.1: Request that the Bossier Parish School Board provide an annual report to the MPC to evaluate the district's ability to accommodate shifting populations and new growth.

Action 11.5.2: Consider the development and implementation of a Charter School as necessary and feasible.

Action 11.5.3: Encourage arrangements for shared access to facilities for recreational or other civic purposes.

Action 11.5.4: Assist BPSB as needed in developing Capital Facilities Plans that are consistent with the Master Plan.

Action 11.5.5: Ensure that land use policies protect and allow for the establishment of new schools in urban areas.

Action 11.5.6: Ensure that expansion of school facility capacity proceeds at a comparable rate with that of residential development and demographic trends.

Action 11.5.7: Consider the adequacy of area school facilities when reviewing proposed new residential development.

Action 11.5.8: Develop a process to determine needs based on identified standards that take into account current use as well as the existing condition of each facility.

Action 11.5.9: Using a standardized process, compile and maintain an accurate space inventory for each school tied to the floor plans of each facility.

Action 11.5.10: Adopt a set of facility use standards and annually use the standards to assess the efficiency of school facility utilization and to plan new schools.

Action 11.5.11: Establish a policy on the use of temporary facilities that recognizes the negative effects on the educational program from overuse of common school facilities and resources.

Action 11.5.12: Annually review school attendance zones to avoid over- or under-crowding of particular campuses.

Action 11.5.13: Adopt a land acquisition process that includes increased opportunities for public input and coordination with future land use, transportation and utilities plans.

Primary Public Facilities and Services

As documented in the Area Profile, Bossier's population continues to increase at a healthy rate; however, much of the growth is occurring on Bossier City's periphery, often in unincorporated portions of the MPC Planning Area. The Land Use element presents a series of growth constraints that should be accounted for when platting new development. With continued population growth, these constraints could induce development trends with higher population densities. New development should also consider the presence and adequacy of existing and proposed public facilities throughout the community.

New public facilities cost money, even as existing facilities must be maintained. Decentralized or dispersed development patterns result in a poor distribution of the necessary public facilities to serve these newly populated areas. Shifting populations also strain school resources and result in some facilities being underutilized.

The following sections provide further background to the goals, objectives and actions for the various public facility and education issues in the Bossier area.

Law Enforcement

As previously noted, the Bossier City Police Department (BCPD) is responsible for all law enforcement activity within the corporate limits. The City Marshal is the agent of the Municipal Court System. Unincorporated portions of the MPC Planning Area are the responsibility of the Bossier

Parish Sheriff's Department (BPSD). The region also benefits from the presence of the Louisiana State Police.

Bossier City Police Department

The mission of the Bossier City Police Department (BCPD) is "…to protect life and property under the law, with full respect of citizens irrespective of race, color, or sex, and according to the highest standards of professional skill, integrity and accountability." Prior to 1949, the City Marshal administered law enforcement functions and no police department existed. Initially, the department was comprised of 12 officers and one patrol car.

Today's Police Department has grown into a modern, multi-faceted law enforcement agency. The Department's headquarters are located within the Municipal Complex at 620 Benton Road.

The BCPD is comprised of five divisions (Uniform Services, Criminal Investigation, Special Investigations, Records, and Jail/Training/Community Services) and nearly 200 employees. Of the 194 total employees, 71 officers are assigned to three shifts. According to *Crime in the United States – 2000,* published by the Federal Bureau of Investigation (FBI), law enforcement agencies nationally had an average of 3.5 employees per 1,000 persons. Based on the Year 2000 City population of 56,461 persons, application of this ratio would require the department to be staffed to 197.4 employees. Used as a guide or indicator and not as a recommendation, this would represent a slight deficiency of about three employees. As discussed in the Area Profile, Bossier City's population for the end of the 20-year planning period is projected to be approximately 69,000 persons. Thus, the BCPD staff would need to expand to approximately 241.5 employees. **Table 11.1 - Law Enforcement Employees**, compares the average number of employees per 1,000 persons to national averages provided by the Federal Bureau of Investigation.

Current and future staffing needs may also be evaluated using call statistics, defined by the BCPD as all calls that require a police response. This definition includes, but is not limited to the following:

- all criminal complaints, including suspicious activity;
- services, which are supportive of citizens' requests, such as welfare checks/vacation watch, extra patrol, message delivery, and motorist/citizen assistance;
- warrant and summons service;
- citizen-initiated calls; and,
- officer-initiated calls.

"Community policing" is defined as a philosophy and management approach that promotes police, community, and government partnerships and proactive problem solving to address the causes of crime, fear of crime, and other community issues. There are three interrelated, equally important core components: including partnerships, problem solving, and organizational structure/leadership.

Bossier City Police Department statistics indicate that calls for service have increased each year since 1997 when calls totaled 95,139. Calls in 2000 totaled 114,481, representing an annualized increase of 6.8 percent. According to BCPD, the increase is attributed to increased tourism and demand for services associated with the arrival of dockside gaming activities in Bossier City and Shreveport.

BCPD initiated a "community policing" approach to area law enforcement activities in 1999. In 2000, the Louisiana Community Policing Institute completed a comprehensive assessment of the department "to assist in the further implementation of community policing." Two of the key strategic recommendations emphasized keeping the public aware of the department's vision and mission and taking advantage of community support by creating formal partnerships for crime prevention efforts and quality of life issues. Each of three areas is led by a Captain, or Area Coordinator. Citywide, the community is broken into 13 police districts where each Area Coordinator is

Table 11.1
Law Enforcement Employees

	MPC Planning Area	All Cities	South	Suburban Areas	County Areas
Average Number of Employees Per 1,000	4.9*	3.1	3.5	3.7	4.3

** Represents both BCPD and BPSD*

Source: Federal Bureau of Investigation

responsible for four districts. The department uses an "active/aggressive patrol" approach. This is based upon the philosophy that petty or minor crimes lead to criminal activity of a more serious nature.

Since 1985, the Main Police Headquarters have been situated within the Municipal Complex. This location coordinates most of the department functions, including administration, records, jail, communications, criminal investigation, patrol and patrol administration, ABO and area coordinators. Space constraints have created the need to locate some components of the department off site. DSI is located at 1403 Hamilton Road and houses narcotics, vice and SCIU operations. The Police Training Center is located at 1549 East Texas, and Evidence Storage is on Cook Road. The BCPD currently has a fleet of 186 vehicles. Of these, 104 are marked patrol cars and 70 are unmarked units.

Through its community policing programs and other mandates, the department provides a number of programs that serve to protect, educate and interact with Bossier residents, including:

- sporting events;
- mentoring programs;
- community meetings;
- child restraint clinics;
- bicycle rodeos;
- Operation Bus Stop;
- D.A.R.E.; and,
- Crime Stoppers.

City Marshal

According to LRS 13:1881, the (city) Marshal is the executive officer of the (city) court; he shall execute the orders and mandates of the court in the execution thereof, and in making arrests and preserving the peace, he has the same powers and authority of a sheriff. As such, the Marshal and deputies are based out of the Bossier City Municipal Courts. The department is staffed by the Marshal and 12 deputies.

Bossier Parish Sheriff's Department

The Bossier Parish Sheriff's Department (BPSD) is mandated to provide law enforcement services to unincorporated portions of Bossier Parish, including such areas within the MPC Planning Area. The Sheriff also functions as the Parish Tax Collector.

The mission of the Sheriff's Department is "to uphold the law with fairness and firmness. It will pursue and bring to justice those who break the law. It seeks to prevent crime and keep the peace. It works diligently to protect the citizens it serves."

The BPSD is staffed with 179 Regular Deputy Sheriffs, 29 Reserve Deputy Sheriffs, and 250 members of the Sheriff's Posse. The BPSD is based in Benton, the Parish seat. However, two satellite facilities are in Bossier City. One office is located within the Municipal Complex, and the other is located at 2510 Viking Drive in Bossier City. The existence of these substations is due to the concentration of the Parish population relative to the predominately rural nature of the remainder of Bossier Parish. Interviews with officials from both the Sheriff's Department and the Bossier City Police Department revealed a high level of cooperation and deferral of most police functions within the City to the BCPD.

The Federal Bureau of Investigation (FBI) cites the following factors that are known to affect the volume and types of crime occurring in communities such as Bossier:

- *Population density and degree of urbanization*
- *Variations in composition of population, particularly youth concentration*
- *Stability of populations with respect to residents' mobility, commuting patterns and transient factors*
- *Modes of transportation and highway system*
- *Economic conditions, including median income, poverty level and job availability*
- *Cultural factors and educational, recreational and religious characteristics*
- *Family conditions with respect to divorce and family cohesiveness*
- *Climate*
- *Effective strength of law enforcement agencies*
- *Administrative and investigative emphases of law enforcement*
- *Policies and other components of the criminal justice system*
- *Citizens' attitude toward crime*
- *Crime reporting practices of the citizenry*

Louisiana State Police

The Louisiana State Police (LSP) also have an important law enforcement function in the MPC Planning Area. Troop G is based in Bossier City on Industrial Drive near IH 20.

The mission of the LSP is as a statutorily mandated, statewide law enforcement agency. "We will ensure

the safety and security of the people in the state through enforcement, education, and providing of other essential public safety services."

Operations in the Bossier area revolve around two primary activities: highway safety and education on seatbelt and child restraint laws.

Priorities

Law enforcement agencies within the MPC Planning Area are well equipped and supported to fulfill their mission well into the future. Continued and expanded sharing of resources among the various agencies will enable them to do "more with less." Continuation of the Area Coordinator and Community Policing approaches to law enforcement within the City promotes good lines of communication within the Department and among residents and businesses.

Fire Protection

Fire protection in the MPC Planning Area is provided by the Bossier City Fire Department within the Bossier City corporate limits and by three fire districts in the unincorporated areas. These districts are the Benton Fire Department, East Central Bossier Parish District 1, and the South Bossier Volunteer Fire Department. Each operates independently but lends support as necessary through mutual aid agreements.

Bossier City Fire Department

The Bossier City Fire Department enjoys broad community support for its services. This support has translated into efficient fire protection and lower property insurance rates. Last year, the Insurance Services Organization (ISO) recognized these efforts in its evaluations by awarding the department a prestigious Class 1 Fire Protection rating. Bossier City is one of three communities in Louisiana and one of approximately 48 nationwide that have achieved this distinction.

To continue this important rating, it is essential to maintain good service area coverage to minimize response times. Each department's facilities are identified in Figure 11.1 – Public Facilities. Bossier City has nine fire stations:

- Fire Station #1 is located in the Municipal Complex at 620 Benton Road. Primary operations and communications are out of this facility. A refueling facility is also on site.
- Fire Station #2 is located at 1101 Waller Avenue.
- Fire Station #3 is located at 2800 Northside Drive.
- Fire Station #4 is located at 4300 Parkway Drive.
- Fire Station #5 is located 915 Meadowview Drive.
- Fire Station #6 is located at 700 Barksdale Boulevard.
- Fire Station #7 is located at 5900 Shed Road.
- Fire Station #8 is located at 2001 River Bend Drive.
- Fire Station #9 is located at 2621 Brownlee Road and is the department's newest facility. It opened in September 2000.

The National Fire Protection Association (NFPA) publishes data on career and volunteer firefighters across the country. In 1997, NFPA conducted a survey of fire departments for U.S. fire experience (*U.S. Fire Department Profile Through 1997*, November 1998). The survey includes data pertaining to a ratio of career and volunteer firefighters per 1,000 inhabitants. These rates are based on data reported by the NFPA and do not reflect recommended rates or a defined fire protection standard. They do, however, provide insight for comparisons with fire departments in similar sized communities. According to the survey of departments serving a population of 50,000 to 99,999 residents, career firefighters per 1,000 people ranged from 0.00 to 3.33.

No new stations are required to serve populated areas within Bossier City. As population growth in unincorporated areas continues to outpace that of Bossier City, additional stations may become justified in northern and southern portions of the MPC Planning Area. However, geographically, volunteer-dependent stations operated by Benton, East Central and South Bossier are well distributed.

Benton Fire Department

The Benton Fire Department service area extends well beyond the limits of the MPC Planning Area. One station, however, is located in the Planning Area at the intersection of Airline Drive and Swan Lake. With only two paid staff at the station, the department relies heavily on volunteers but manages to provide adequate services to earn a Class 4 Fire Protection rating. Mutual aid agreements with Bossier City also help.

With rapid population growth in this area, a number of needs have become evident, and some have recently

been fulfilled such as a $300,000 upgrade for the department's training center and maintenance facility. Acquisition of paid staff is imperative to further improve the fire protection rating. This will require accommodation space.

The recent development influx has contributed to a measurable (10-15 percent) increase in revenues to the department, which derives its funds from a property tax millage. No emergency medical services are available from this station.

East Central Bossier Parish District 1

Serving eastern unincorporated portions of the MPC Planning Area and beyond, ECBP District 1 has two stations within the Planning Area: 4494 US Highway 80 and Bellevue at Adner Road. A third fire station within the Planning Area is proposed for the intersection of Bellevue and Pease, where land has been donated.

The department retains a Class 4 Fire Protection rating. With four full time employees, one is on duty at all times. Forty volunteers compliment them, but additional regulars are needed. Without hydrants in many areas, tankers are used to supply water for firefighting.

South Bossier Volunteer Fire Department

The South Bossier VFD responds to approximately 180 square miles from six fire stations, four of which are within the Planning Area limits:

- Central is located at 3551 Highway 527 at LA 157 and houses paid staff as well as one primary ambulance and one backup ambulance operated by the Bossier Parish EMS.
- Fire Station #4 is located at the intersection of Sligo and Mayflower Road.
- Fire Station #5 is located at the intersection of US 71 and Taylortown.
- Fire Station #6 is located at the intersection of US 71 and Poole Road.

No new stations are proposed at this time. The critical issue facing the volunteer department concerns the desire to migrate to a 24-hour shift next year and the longer-term need for additional paid staff. The department has a roster of approximately 40 volunteer firefighters. Further, the department has a Class 5 fire protection rating, the lowest in the Planning Area. The most significant hurdle to improving the rating is the lack of a water system. Only dry hydrants exist to facilitate the pressurizing of water hauled to the incident to extinguish the fire.

For planning purposes, all of the departments utilize a 1.5-mile service/response radius for each station, consistent with ISO standards. Based on this criterion, a new station is needed in the northeastern sector of the Planning Area along Bellevue Road where one station is proposed in order to provide adequate protection for this growing area and maintain established fire protection ratings in the Planning Area.

Emergency Medical Services (EMS)

The Bossier City Fire Department provides emergency medical services (EMS) to areas within the City. EMS in unincorporated portions of the MPC Planning Area is provided by Bossier Parish EMS.

Bossier City EMS

Emergency medical services in Bossier City are operated as a function of the Fire Department. The mission of the Bossier City EMS is to "reduce the amount of pain and suffering of the citizens and guests of our city by providing the highest level of quality pre-hospital emergency care possible."

The City's EMS provide patient stabilization and transport with three ambulance units and a variety of personnel, all of which are certified in various specialties. Staff levels are strong, with 47 nationally registered paramedics, five intermediates, 103 basics, and 19 first responders. These resources provide emergency medical response for Bossier City and Barksdale Air Force Base, covering more than 40 square miles and serving over 60,000 persons.

Historically, funding of this service has primarily been through an enterprise fund, and according to Ordinance #70 adopted last year, the fund was losing money for a third year. This ordinance enabled the City to bill residents' and non-residents' insurers, Medicare/Medicaid, or others to make up for the loss. Further, the ordinance established a base rate per patient transported of $500.00 as well as a loaded mileage rate per patient of $6.00. While these measures to maintain services were adopted by the City Council, a proposed 9-mill property tax to expand services was denied in a referendum last fall. The

revenues generated would have funded an additional ambulance, additional staff and improve dispatch and response systems. The fourth ambulance would have been utilized to reduce response times in north Bossier.

Areawide, private ambulance services provide non-emergency medical transport and patient transfers.

Bossier Parish EMS

Emergency medical services in Bossier Parish are funded by a tax of $36 per residential dwelling unit and a quarter-cent sales tax in unincorporated areas. The service area is parishwide with the exception of Bossier City. Bossier Parish EMS operates seven ambulances, three of which are backup. Stations with ambulances are South Bossier, East 80/Haughton, Benton and Plain Dealing. All but Plain Dealing operate a backup. Should all of the units in north Bossier be utilized simultaneously, the south Bossier units would rotate temporarily. The dividing line for this purpose is IH 220.

There are three key issues relevant to this service. The first concerns the availability of the service to residents in the MPC Planning Area. Many believe they are better off transporting themselves or family members to the emergency room, but in fact, the Parish EMS system, being based in strategic locations, generally responds much faster. Secondly, there is only one emergency room facility in Bossier City. When this facility is full, no additional patients are accepted, forcing the deferral of the patient to facilities in Shreveport and adding as much as 15 to 20 minutes to response times. Finally, as population continues to grow over the long term, additional ambulances may be necessary to maintain the current levels of service.

Communications

The Bossier Parish Communications District #1 facilitates Emergency 911 (E-911) communications on a parishwide basis. The facility is located at 4601 Palmetto near Benton. It has been at this location since 1996. Eight full-time call takers accept over 150 calls per day that are disseminated to 17 agencies. Eight backup call takers support them. Wireless calls account for nearly 40 percent of incoming calls. The district also functions to monitor the subdivision process parishwide to prevent the duplication of street names and maintain up to date mapping. Revenues are collected through telephone billings.

Bossier Parish Library System

The library system that serves the MPC Planning Area is a function of parish government, which is standard throughout Louisiana. The Bossier Parish Central Library is located in Bossier City, and seven branches are located throughout the parish. The Central, East 80 and Aulds South Bossier branches are situated within the MPC Planning Area as shown in Figure 11.1 – Public Facilities. Public access to information concerning various aspects of the system is readily available through a user-friendly Web site. The mission of the system is: "Libraries are for People. They are not a warehouse for books."

Bossier Parish Central Library

As the flagship facility within the Parish's library system, Central has over 18,000 square feet of space dedicated to the Parish's principal collection of reference materials, periodicals, and workstations for public use. Constructed in 1988, the facility is located at 2206 Beckett Street in Bossier City, within walking distance from the Municipal Complex. The inviting, modern structure replaced the former main branch facility on the same property. Consisting of an additional 6,000 square feet, the older building is now used as Technical Service space. The facility is also complimented by Bossier Parish Library Historical Center, a wing consisting of 7,500 square feet. Hours of operation, story hours and availability of computers and meeting facilities vary by branch but remain fairly equitable as evidenced in **Table 11.2 - Bossier MPC Planning Area Library Attributes**.

A master plan for the Central Library was completed in 2001. The *Bossier Central Library Master Plan 2001* details future expansion plans for the facility. All components of the facility would be positively impacted. The expanded facility would result in over 78,000 square feet of space.

East 80 Branch Library

Located at 1050 Bellevue Road, the East 80 Branch has been open since 1987. The facility has approximately 6,700 square feet. Significant expansion is slated for 2006 that will increase book capacity, seating areas and the number of computers available for public use.

Aulds South Bossier Branch Library

Constructed in 1970, the Aulds branch is located at 3950 Wayne Avenue. Improvements to this facility literally

Table 11.2
Bossier MPC Planning Area Library Attributes

	Central	East 80	Aulds South Bossier
Hours	9-9 M-Th (9-8 Summers) 9-6 Friday 9-5 Saturday 2-5 Sunday	9-8 M-Th (Summer) 9-6 Thur/Fri 9-5 Saturday 2-5 Sunday	9-8 M-Th 9-6 Friday 9-5 Saturday 2-5 Sunday
Computers	16 Internet 6 Word Processing	4 Internet/ Word Processing 1 Internet	4 Internet/Word Processing 1 Stand Alone WP/CD databases
Story Hours	10:00 am Wednesdays September – May Ages 3-5	10:30 am Tuesdays September - May Ages 3-5	10:00 am Tuesdays September - May Ages 3-5
Meeting Facilities	Board Room (Capacity 20) History Center (Capacity 80)	Capacity 40 No Charge	Capacity 75 No Charge

Source: Bossier Parish Library

surrounded the original Aulds branch, which was converted into meeting space and incorporated into a new 5,800 square foot library addition, creating a total square footage of 7,200. Another building expansion is anticipated in 2005 or 2006. This proposed improvement would serve to increase book capacity, computers, study seating and an expanded children's area.

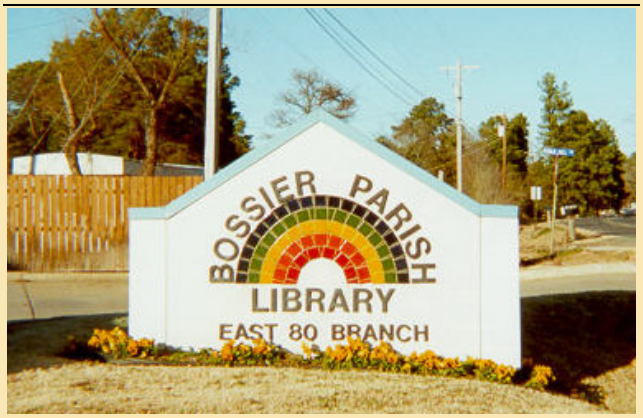
Library Development Standards

Standards provide a measure for determining the nature of library facilities and services necessary to satisfy current and projected demands. Standards for public libraries in Louisiana were published by the Louisiana Library Association in 1964 with updates in 1975, 1987 and 1995. *Standards for Louisiana Public Libraries 1995* should set the bar for the Bossier Parish Library System. **Table 11.3 - Bossier Parish Library Rankings in Louisiana** depicts the system's rankings as compared to 64 other library systems in Louisiana.

Governance and Funding

As provided in LRS 25:214, the Bossier Parish Police Jury utilizes a Bossier Parish Library Board of Control, consisting of five appointed Parish residents, to provide management oversight for the library system. The duties of the board entail review and approval of budgets, services, facilities and staff. As a public board, all meetings are open to the public and must be advertised appropriately. As the Library Board's appointing authority, the Bossier Parish Police Jury owns all of the facilities and property within the library system.

Approximately 90 percent of library funding is generated through an 8.31 mill property tax. The tax is subject to the Louisiana Homestead Exemption. The State of Louisiana contributes nearly $200,000 through revenue sharing, book funding and data lines. The remaining revenues are generated from copy machine fees, overdue book fines, and accrued interest. In 2000, the library system as a whole received nearly $2.6 million in total operating income according to data available through the State Library of Louisiana.



The East 80 Branch of the Bossier Parish Library System is slated for significant expansion in 2006.

Space Needs

The Louisiana Library Association (LLA) advocates facility sizes using a ratio of building square footage to population that ranges from 0.6 to 1.0. Dependence on various electronic equipment and media for data access would require the higher ratio.

Data from the 2000 Census show that the population of the MPC Planning Area was 74,836 persons, resulting in collective space requirements of 44,901 to 74,836 square feet based on the LLA guideline. Together, the three

library system facilities within the Planning Area represent 45,100 square feet. Therefore, based on the Year 2000 population within the Planning Area, the space requirements are narrowly met at the low end of the Louisiana Library Association range.

Table 11.3
Bossier Parish Library Rankings in Louisiana

Bossier Parish	Ranking/65
Book Collection	60
Serial Collection	21
Total Collection	58
Patron Visits	7
Reference Transactions	12
Electronic Resource Users	12
FTE MLS Librarian	29
FTE Staff	33
Circulation Total	10
Circulation Per Capita	18
Circulation - Children's	44
Income - Local Taxes	18
Total Income	21
Personnel Expenditures	59
Collection Expenditures	38
Total Expenditures	20

Source: Public Libraries in Louisiana Statistical Report, 2000

Expansions previously discussed in this chapter should be adequate to better satisfy current needs. However, when considering the projected 2020 population of 96,000 persons, the collective space requirements of the Planning Area's library facilities jump to a range of 57,600 to 96,000 square feet.

Library Resources

Collections development is an ongoing, costly process. A modern library's collection should consist of a variety of formats and media types. To assist library staff and administrators, the LLA has developed guidelines for resources per ratio of population. For an adequate supply of books, 2.5 per capita is recommended and 3.5 per capita is considered superior. Six to 10 periodicals per 1,000 persons should also be maintained. Parishwide, the system maintains 1.85 total volumes per capita. This places Bossier 58th out of 65 parishes in Louisiana.

Staffing

The Louisiana Library Association mandates that each library be administered by a library professional, or one who is a graduate of an accredited program in library science, with designated staff responsible for planning, organizing, coordinating and administering functions. Bossier's library director is state certified as required by LRS 25:222. According to statistics maintained by the State Library of Louisiana, the entire Parish library system employs seven full time equivalents with accredited degrees plus 71 staff.

Operations and Programming

Each of the libraries within the Planning Area operates consistent with recommendations given by the LLA for hours of operation. For populations over 10,000, a range of 52-68 hours is suggested, where each library is open at least 64 hours per week. Each branch offers story time for children ages 3 to 5. Each facility also has meeting space that is well used, primarily by area non-profit agencies.

Future Needs

As the population within the MPC Planning Area continues to grow, so too must the Library System to maintain and improve the current level of service. Expansions are already proposed on a pay-as-you-go basis, contingent on the renewal of the 8.31 mill property tax in 2005. The following is an assessment of whether the proposed expansions will be adequate based on the projected 2020 population, or if another facility is needed.

- Aulds South Bossier Branch expansion is proposed for 2003-04 to add 2,600 square feet.
- East 80 Branch expansion is proposed for 2005-06 to add approximately 4,500 square feet.
- Central expansion would more than double the facility to 78,600 square feet. This proposal will not materialize until such time (2010-2015) that property values and public sentiment would support funding for construction and operation.
- The expansions will result in approximately 99,600 square feet of library facility space.

Although outside of the MPC Planning Area, a new Benton Branch Library is proposed in 2005-06 consisting of nearly 10,000 square feet. With continued growth in north

Bossier, such a facility could provide relief to other area facilities.

When new facilities become necessary, certain considerations should be evaluated to select the most appropriate site. According to recommendations by the LLA, "accessibility, visibility, and security are essential factors". As with any public facility, site selection should also consider flood hazards, elevation, and drainage. LLA further recommends that "the spacing of branches within a system has a significant impact on the overall viability of the system… (and) should relate directly to the demographic data available on the service area, and outlets shall be planned that address the socioeconomic status of users with the targeted region."

Public Buildings and Facilities

Public buildings and facilities serve a vital function in every community. They provide common ground for residents to gather for civic meetings, obtain services, or pursue hobbies and other recreational activities. Therefore, it is important to assess what public facilities are available to current and future residents of the Bossier area. The facilities are categorized by government, assembly and health care. The presence of each type has a tremendous positive impact on the economy and livability of the Planning Area.

Government

Bossier City

City Hall is one of several functions housed in the Municipal Complex located on Benton Road.

Bossier Parish

In addition to the Parish-owned facilities already cited in this chapter, the Police Jury has several other facilities within the MPC Planning Area. A juvenile detention facility is located at 4482 Shed Road, and the Bossier Parish Office Complex is located at Old Minden and Industrial. The complex houses the Health Unit, Section 8 Housing office, Truancy and Juvenile Drug Court. The Caddo-Bossier Office of Emergency Preparedness (OEP) is located on Doctors Drive. The Bossier Parish Tax Assessor's office is on Benton Drive adjacent to the Municipal Complex.

State of Louisiana

Although facilities owned and occupied by the State are not under the purview of the Bossier City-Parish Metropolitan Planning Commission, policies should be developed and sufficient coordination achieved to ensure that site selection procedures result in a desirable location for the services rendered to the community.

Bossier Office of Motor Vehicles (OMV) - The Bossier OMV is located at 3802 Kilpatrick Boulevard near Troop G Headquarters. The facility is centrally located within the MPC Planning Area. It is the sole location in the Parish for citizens to renew driver's licenses and auto registration.

Federal Facilities

Barksdale Air Force Base - As the largest U.S. Air Force installation in the country, Barksdale is practically a city unto itself. On base are many of the same public facilities described in this chapter, such as a library, post office, and medical facilities. Not all personnel live on base, and many likely patronize facilities throughout the MPC Planning Area. Barksdale does not have any educational facilities for dependents; they attend Bossier schools or a private school of their choice.

US Post Office Facilities - Three postal facilities are located within the MPC Planning Area as shown in Figure 11.1:

- Barksdale Air Force Base, 50 Vandenberg Avenue, Suite 135
- Bossier City, 150 Benton Road
- Plantation Station, 4310 Barksdale Boulevard

Assembly

Bossier Civic Center

Located within the Bossier Municipal Complex on Benton Road, the Civic Center hosted more than 220 events in 2001, with over 378 use days. The facility was constructed following a successful bond issue in the 1960s and was completed in 1987. With capacity for 3,000 and a parking area of 438 spaces, parking is an issue, but generally only for weekday events when city employee and customer parking spaces are occupied. The complex is surrounded by open space that is underutilized and could be developed with additional surface parking lots if necessary.

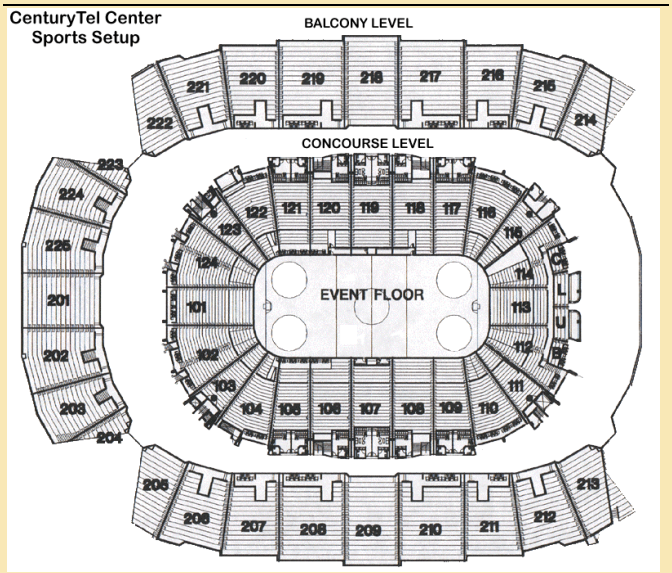
Approximately 90 percent of Civic Center business is derived from repeat customers. With no marketing staff, bookings are dependent on word of mouth. The recent

opening of the CenturyTel Center has not negatively impacted the Civic Center, primarily because they attract different types of events.

CenturyTel Center

Owned by the City of Bossier City and managed by SMG, the CenturyTel Center was completed in 2000. It is located in South Bossier at 2000 CenturyTel Center Drive. The 270,000 square foot facility seats 14,000 and is the home of two professional sports teams. The seating may be configured to host a variety of events, including rodeo, concerts, conventions and a variety of other functions.

Together, the Civic Center and CenturyTel Center represent a tremendous investment by Bossier City for the future of the Ark-La-Tex. The facilities generate tremendous sales tax revenues directly and indirectly from patrons at restaurants, hotels and retail outlets.



CenturyTel Center is one of Bossier's newest entertainment venues and serves as a focal point for the community, hosting a variety of events throughout the year.

Health Care

Medical facilities within the MPC Planning Area are generally clustered in northwest Bossier near Interstate 220. As specialized operations, most such medical facilities tend to serve larger regions. Christus Schumpert Bossier, Summit Hospital and Willis-Knighton (WK) Bossier Health Center are located in Bossier City and highlighted below. However, it should be noted that additional facilities are located in Shreveport that would in most circumstances include Bossier in their service areas, including the LSU Medical Center.

Christus Schumpert Bossier

Formerly known as the Bossier Medical Center, the facility was owned by the City of Bossier City until 1999. As an acute care hospital, it has 169 beds. Among the services provided are emergency care and other general medical services and procedures. An Intensive Care Unit and Comprehensive Rehabilitation Unit are on premises. The facility is located at 2105 Airline Drive near Interstate 220.

Summit Hospital of Northwest Louisiana

Summit Hospital is located at 4900 Medical Drive in southern Bossier City.

Willis-Knighton (WK) Bossier Health Center

The Willis-Knighton Health System operates this facility located at 2400 Hospital Drive adjacent to Interstate 220. The hospital has announced plans for expansion, which include a two-story addition to more than double the number of intensive care beds and provide additional space for support services.

Recently, the Bossier Health Center became the only facility in Bossier Parish with an emergency room. The facility has already been put on "drive by" status, forcing patients to go elsewhere. This is of significant concern to Bossier residents, who deserve quality critical care services. It is anticipated that the expansion of the ICU will relieve pressure on the demand for critical care beds. However, with only one emergency room facility in the Parish, steps should be taken to mitigate the need for future diversions.

Bossier Parish Health Unit

Located at 3022 Old Minden Road in the Bossier Parish Office Complex, the "Health Unit" is a key component of public health and indigent health care for the area. It is administered by the Louisiana Department of Health & Hospitals - Office of Public Health. The facility provides a range of services, including family planning, maternity services, child health services, immunizations, WIC program, and others. Birth/death records, sanitarian services and water sampling are other program examples. As a result, it is crucial for this facility to be accessible to

the entire community. As population in the Parish continues to grow and shift geographically, an additional facility may be deemed necessary.

Education

Overall, Bossier Parish has the 11th largest public school enrollment in Louisiana, with a total of 18,800 students as of October 1, 1999. Of this total, 13,662 students were in grades PK thru 8, and 5,138 were in grades 9 thru 12. Approximately two-thirds were white. Comparatively few (205 students) were enrolled in non-public schools. These students were predominately white and attending grades PK thru 8.

Bossier Parish School Board

The Bossier Parish School Board (BPSB) administrative offices are located in Benton, the Parish seat, which is north of the MPC Planning Area. The location of BPSB and other educational facilities within the MPC boundary is shown in Figure 11.1 – Public Facilities. At the end of this chapter, **Table 11.4 - Education Facilities** identifies each school and education facility in the Planning Area.

The State of Louisiana defines a school as "an institution for the teaching of children, consisting of an adequate physical plant, whether owned or leased, instructional staff members, and students." All schools, public or non-public, are required to be in session at least 180 days each year. The statutes also recognize home schooling as a viable alternative so long as it offers "sustained curriculum" of at least equal quality to that offered by public schools.

Funding

In 1995, Parish voters approved a $17 million bond issue for the construction of two new school facilities. The bonds have a 15-year debt service period with a millage of 4.70. This is one example of the support that Bossier taxpayers have offered to continuously improve the Parish school system.

Funding for the Bossier Parish schools is derived from local, state and federal sources. Local funding sources account for 38 percent of the general fund revenue. In addition to the millage noted above, three renewable millages and one Constitutional millage are leveraged for various purposes. Bossier property owners are assessed 54.64 mills each year, which generated more than $17 million in 2000-2001. This rate is subject to the Homestead Exemption, which is $75,000. Thus, owner-occupied residential properties where the property assessment does not exceed this $75,000 threshold are relieved of any property taxes allocated to the School Board. While the Homestead Exemption is not unique to Louisiana, the maximum value exceeds most other states, particularly in the South.

The maximum allowable local sales tax rate is 4.5 percent. The state sales tax rate is 4 percent, for a maximum total of 8.5 percent. The school district has a 1.5 percent Parish-wide sales tax, which generated approximately $22 million in 2000-2001. State funding accounted for 60 percent of the general fund, and federal sources yielded another two percent.

Of all general fund expenditures, 82 percent was allocated to salaries and benefits. As a whole, Louisiana has historically struggled with teacher pay compared to the Southern Regional Average. National averages are even higher.

Guidelines for the Development of Schools

The State of Louisiana sets many of the parameters by which the School Board must operate, including the provision of facilities and related issues. Section 17.151 of the Louisiana Revised Statutes states, "Parish…school boards may establish such public schools as they deem necessary to provide adequate school facilities for the children of the parish, and also trade schools, evening schools, schools for adults, schools and classes for exceptional children, and such other schools or classes as may be necessary to meet all special or exceptional requirements." The section further states that high schools may also be established but require the sanction of the State Board of Elementary and Secondary Education (BESE). Part B of the section limits class sizes to a system-wide pupil-classroom teacher ratio of 20:1 for grades K through 3.

In order to properly implement such provisions, a facilities planning process should be established. As a guide, the Texas Education Agency (TEA) offers recommendations for this process that includes four program elements, planning, approach, project initiation, and project activity. Each element consists of at least one mission, responsibility, and deliverable as referenced in **Table 11.5 - Facilities Planning Process** at the end of this chapter.

The Council for Educational Facility Planners, International has developed standards for determining the amount of each type of space that a school district will need in the *Guide for Planning Educational Facilities*. The Guide focuses on the following factors:

- enrollment levels;
- programs offered by the district, and the enrollments in each type of program;
- estimates of space demands by each program at each school; and,
- efficiency with which each school district plans to use its facilities.

Table 11.4
Education Facilities and Attendance, 2001

School	Grade Configuration	Faculty	Population	Class Size (%)			Capacity*
				1-20	21-26	27+	
Elementary							
Apollo	K-5	49	836	24	49	27	825
Bellaire	K-3	26	422	45	55	0	625
Bossier	PK, K-3	27	294	100	0	0	640
Butler	4-6	15	148	29	52	19	215
Central Park	PK, K-5	34	429	68	29	3	515
Curtis	4-5	29	537	4	12	84	770
Kerr, R.V.	K-5	38	580	55	45	0	660
Meadowview	PK, K-5	43	614	59	41	0	665
Plantation Park	PK, K-5	38	542	68	32	0	695
Platt	3-5	50	854	15	68	17	720
Rodes, T.L.	K-2	56	877	35	65	0	725
Sun City	K-3	40	598	40	60	0	665
Waller	PK, K-5	46	705	24	76	0	830
Middle/Jr. High							
Cope	6-8	34	563	28	45	27	860
Elm Grove	6-8	43	828	7	29	63	930
Greenacres	6-8	44	681	26	41	32	750
Rusheon	6-8	52	778	28	47	25	950
High Schools							
Airline	9-12	82	1,335	31	35	34	1,425
Bossier Achievement Center	7-12	10	151	94	4	2	170
Bossier	9-12	50	786	40	36	24	830
Parkway	9-12	58	1,003	40	26	33	1,280
Combination							
Bossier Parish Alternative	5-12	14	58	100	0	0	
Bossier Parish Technical	NG	13					
Jones Youth Shelter	K-12	1	18	100			
Life Skill Center	NG	6					
BPSB Total		**1,205**	**18,674**	**34**	**37**	**30**	
Louisiana Total		**49,298**	**766,274**	**37**	**39**	**25**	

** Capacity is measured by 2002 while student and faculty population figures represent 2001. No schools were noted as over-capacity in 2002.*

Table 11.5
Facilities Planning Process

Mission	Responsibilities	Deliverables
Planning		
Needs Assessment	Identify current and future needs	Demographics, facilities survey, boundary, funding, education program, market, staff capability and transportation analysis
Scope	Outline required building areas, develop schedule and costs	Programming, cost estimating, scheduling, cost analysis
Strategy	Identify structure	Facilities project list, master schedule, budget plan, organization plan, marketing plan
Public approval	Implement public relations campaign	Public and media relations
Approach		
Management Plan	Detail roles, responsibilities and procedures	Program management plan and systems
Program strategy	Review and refine details	Detailed delivery strategy
Program guidelines		Educational specifications, design guidelines, CADD standards
Project Initiation		
Mobilize team	Include all project participants	Site selection and acquisition, facility program, project educational program, environmental impact report, preliminary budget approval
Project Activity		
Design documentation	Conformance to program plan	Construction document final acceptance
Award contracts	Bidding, contract and procurement procedures	Notice to proceed
Construction	Monitor the progress of construction	Occupancy permit
Post construction		Facility ready

Source: Texas Education Agency

Policies & Strategies

The Policies and Strategies chapter marks a transition in the Bossier Comprehensive Land Use and Development Master Plan. To this point, the community has been broken down into economic, land use, parks, transportation, utilities, housing, image, and facilities – the various components that establish local quality of life and community success – and carefully analyzed. Major issues have surfaced and, after much research and discussion, each of those issues has been addressed through goals, objectives and actions.

This chapter sets the foundation for implementation and the effort needed to turn the vision and goals established in previous chapters into reality. Here, the various components of the community are brought back together, complete with their individual issues and solutions, and examined as a whole. The effort in this instance, however, is not to establish goals, objectives and actions. Instead, this chapter seeks to establish policies for Bossier that will allow for new development to occur in a way that successfully addresses the solutions of previous chapters. In doing so, it paves the way for implementation and enhanced local quality of life.

Specifically, the Policies and Strategies chapter addresses growth and how it should occur. After the analysis of the previous chapters it is clear that a significant amount of land remains available for development. At the same time, it is also clear that current development practices do not maximize the physical, social and fiscal efficiency of the community. Resources that could be used for better marketing to local residents, potential new business and visitors are considered barriers instead of opportunities.

Business practices that could lead to improved infrastructure, better utilized facilities, more active parks, safer streets, and more affordable housing are available. Good growth can benefit each and every resident of Bossier City and Bossier Parish.

Physically, the community must focus on wise choices for land use. Certain areas within Bossier Parish are not appropriate for urban residential, commercial or industrial development. That does not imply they are without value, but simply that their value to the community may rest in their existence as amenities or through managed development practices.

Other locations may not be appropriate for development, *at this time*. The developer that creates a subdivision in the "far reaches" of the Parish does so to meet a demand in the market. But without the additional necessary support services that establish a sense of community, neither Bossier nor residents of the new subdivision will be satisfied with the product over the long term.

Socially, development should occur in a manner that enhances the area's "social capital." Community represents more than creating desirable homes. It also means establishing opportunities for gathering, communication, celebration, and diversification. Development, both private and public, impacts the social fabric of the community. It fortifies or erodes specific values by simple design issues such as connecting neighborhoods, establishing appropriate gateways, creating walkable neighborhoods, and respecting the local environment. While several of these items run counter to modern development, they are proven to be amenities that residents appreciate and that have a lasting, positive impact upon area quality of life.

Introduction
Area Profile
Vision & Goals
Market Assessment
Land Use
Parks & Open Space
Transportation
Utilities & Infrastructure
Housing
Image & Design
Facilities & Education
Policies & Strategies
Implementation

Economically, development policies create a major impact upon developers, property owners, and area government. The economic vitality of the community is directly dependent upon making best use of the limited resources available. In many cases, this can mean a focus on redevelopment, as well as development. Existing neighborhoods, parks, commercial areas, streets, and infrastructure are physically present and functioning. The dynamics of existing areas establish the perceived condition of the community. Established, attractive and inviting areas will certainly provide more economic benefit than decaying, "passed over" locations and will also leave residents and potential investors with a more positive impression of the community's economic well being. Additionally, active and stable existing neighborhoods and business districts contribute positively to local taxes. Without the burden of maintaining portions of the community through "economic life support", local taxing entities can better utilize resources or even consider reducing the overall burden on taxpayers.

Economics are also a matter of simple practicality and common sense as a community. This is a long-term view designed to maximize and ensure the overall economic health of the community as a whole and it may not always meet the short-term needs of a select few individuals. Extensive development in the floodplain may permit a developer and the initial property owner to make a profit, but the overall cost to improving flood control, storm drainage and the potential hazard to personal and public property often outweigh the benefits. Likewise, a community whose sole means of travel is by automobile does not match the economic potential available in a more diversified environment or the reduced taxes required for infrastructure maintenance.

Many of the most successful communities are those with a marketable "theme." In Bossier, the opportunity exists to establish the City and Parish as one which thrives on leisure and recreation opportunities. The surroundings create the optimum setting for enjoying and taking advantage of nature. On the other hand, the gaming and sports industries provide other, more dynamic, recreation opportunities. By filling in the gaps, Bossier can easily become known as a "great place to live and play."

The Policies and Strategies chapter addresses the physical, social and economic opportunities available to Bossier. It does so by combining the issues and solutions related to development and then detailing specific policies to be utilized privately and publicly on the path to implementation.

Issues and Solutions

Prior to development of this chapter, significant analysis has been conducted to ensure that all issues facing Bossier City and Bossier Parish have been carefully examined. Extensive research combined with discussion involving members of the community and local leaders raised a substantial number of concerns that have individually been addressed through a series of goals, objectives and actions.

Interestingly, when the issues for each of the major topics are brought together, a few distinct themes form that set the stage for the preferred development pattern in Bossier. More, the themes that have been raised coordinate well to create an overall impression of a community seeking development that is responsive to the community's needs and makes the best use of area resources.

The summarized issues for Bossier are as follows:

- Natural resources are important to Bossier's appeal and overall quality of life. To the extent possible, these amenities should not only be protected, but utilized as a development and marketing tool.
- Development in Bossier City and Bossier Parish should occur logically and in a manner that benefits the community over the long term physically, socially and economically.
- Some of the greatest opportunities for responsible development in Bossier exist for redevelopment and infill within the urbanized areas. Aggressive and innovative public and private partnership in these areas could result in a much more dynamic and economically substantial Bossier.
- Locations within Bossier Parish, but outside of Bossier City that offer tremendous development opportunity should be permitted to grow as surrounding urban villages that are primarily self-sufficient, but also closely related to the existing urbanized area. Utilizing the urban village concept will allow for development

in a manner that promotes logical, responsible growth.

- Development within sensitive areas should be allowed to continue, but in a manner that both creates marketable communities and protects the natural environment. Conservation subdivision techniques not only protect the natural environment, but also utilize protected spaces as a marketable amenity with subdivision development.
- Coordination among government entities is crucial to maximizing limited resources. Requirements can be streamlined and coordinated to appear seamless. Facilities can be designed to provide multiple services in an economical and physically desirable manner.

Policies

Natural Resource Conservation

Policy: Natural resources should be strategically protected and utilized through public acquisition, private dedication, conservation easements and sound development practices.

In a number of communities throughout the country, farmers and other individuals that privately own the natural landscape are facing pressure to preserve or conserve the area to "serve the common good." A significant amount of that pressure comes from nearby property owners that purchased property in the area because of surrounding visual character.

While property owners have the option to voluntarily conserve natural areas, the general public should neither have the expectation that the owner must conserve property or the concern that such character will be destroyed. Instead, effort should be undertaken to ensure that the natural assets of Bossier Parish are protected and preserved through joint public and private protection or acquisition of land or development rights. In this manner, all parties share the responsibility of preservation and all, including the property owner, are rewarded.

There are an abundance of natural resources that contribute to the Parish's uniqueness that are indirectly instrumental to the well being of the local economy. Bossier Parish's natural resources include its many lakes, rivers, bayous, wetlands, forested lands, and farmland. All coordinate to create a pastoral, natural character that is both important to area quality of life and very marketable.

Natural Resource Conservation Case Study
City of Boulder, Colorado

Boulder, Colorado is among the key communities across the country that are considered a model for aggressive protection of open space and visual character. In fact, the City of Boulder took its first step toward natural resource conservation as early as 1898 with the purchase of land now known as Chatauqua Park. Since that time, the city has remained aggressive in its efforts to protect what is considered its key asset: the surrounding natural amenities.

In 1967, the City of Boulder once again made history in open space protection by enacting the first tax aimed specifically at acquiring and conserving open spaces. In 1989, area residents not only continued to support the efforts of open space preservation, but voted for an additional sales tax to escalate the program and offset the rising cost associated with acquiring and maintaining land.

As a result of strong public support, the program that began in an effort to save a mountain backdrop to Boulder has now become a much larger mechanism to preserve open spaces throughout the community. By 2001, the City of Boulder had acquired approximately 30,000 acres of open spaces and visual scenery. An Open Space Department has been developed to replace the original Open Space/Real Estate Department and the revised public entity is guided by the recommendations of the Open Space Board of Trustees.

Selecting and acquiring land for protection has become more than an issue for the public sector. In fact, the numerous organizations involved include the Board of Trustees, for-profit entities, nonprofit organizations, general citizens, and others as needed.

Much like Bossier, the scenic and environmental character near Boulder, Colorado contributes to its attractiveness, desirability and overall quality of life.

The public sector can play several roles in the conservation and proper utilization of open space, beginning by planning for future needs and determining the type, amount and location of land to be targeted for conservation. Lands selected for conservation may meet one of several criteria established by the public sector, including park space, ecotourism, visual character, wetland preservation, and floodplain management.

The most obvious means by which government can impact conservation and utilization of land is to simply acquire it. This may be achieved through a number of mechanisms depending upon the purpose of the space. Park space can be purchased through taxes and actively maintained by the government entity. Strategic coordination among governments can ensure that park space is available to the maximum number of residents. Likewise, land available for flood control can be effectively managed by government authorities.

Wetlands and open spaces, on the other hand, are generally held by an outside entity, although they too can be acquired through government funds. Nationally, numerous communities are now utilizing public funds to purchase property to preserve the natural or rural character. Property is often deeded to a trust, such as the Trust for Public Lands, to be managed.

The expense of purchasing significant amounts of property can often be a barrier. To combat this while still protecting important areas, many communities have turned to the use of conservation easements. Like other easements, a conservation easement must be acquired from the current property owner. The easement places significant limitations on the ability to develop such land. Therefore, while the property owner may continue to own the land, it becomes protected or utilized only for those purposes specified by the easement. This approach has proven very effective in preserving farmland, wetlands and wooded areas. For many farmers that wish to take advantage of increased property value, but also protect the rural character of an area, conservation easements are a perfect fit. By selling development rights beyond agricultural use, a farmer may acquire capital while also continuing to farm the site.

Private development also stands to gain from preservation of open space. Studies have found that visual amenities such as parks, open spaces, trails and waterways are not only appealing, but also profitable. The publication entitled *The Economic Benefits of Parks and Open Space*, as developed by the Trust for Public Lands, indicates that in Salem, Oregon, land nearby a greenspace was, on average, valued at $1,200 per acre more than those units beyond the green space. Similarly, in Oakland, California, one greenspace was credited with increasing the property value of adjacent parcels by $41 million compared to nearby homes.

Add to this the value of ecotourism, a trend that is becoming more popular and to which Bossier is well suited. Ecotourism is becoming an important form of tourism as more people travel to destinations to seek out nature-related recreational opportunities. Ecotourism provides environmental, recreational, educational and economic benefits to a region. Natural resources and ecotourism projects provide recreation opportunities and attract visitors to a region contributing to the local economy. At the same time, such opportunities further provide for the protection of unique natural areas and interpretive and educational options for both residents and visitors.

Although tourists provide an economic benefit to the community, it is imperative that the impact of tourists be minimized and nature based programs exercise stewardship towards the natural environment. Stewardship also entails ensuring that local people benefit from the economic activity associated with ecotourism, including protecting existing aspects of the economy that also depend upon natural resources and a healthy eco-system. Careful planning and management of tourism is instrumental to ensure that natural resources are preserved for their continued use and enjoyment by present and future generations.

Sensible Development

Policy: Growth should occur in a logical fashion that will most positively impact the physical, social and economic character of Bossier.

Many of today's traditional development patterns are based upon the simple notion of creating development that is marketable and profitable. Little real thought is generally given to the impact of development upon a community unless instigated by local leaders or residents.

Sprawl may be marketable to both the general public and the financial institutions that fund development projects, but it is short-sighted and the long-term consequences to both residents of the community and the development are significant.

More recently, communities are searching for development practices that still allow for marketability and profit, but also aid the community in achieving efficiency and improving local quality of life. Some have adopted this under the recent mantra of "Smart Growth." In reality, such activity is nothing more than common sense applied in the interest of the community. The concepts include balancing economic development and environmental protection, focusing new development where public services and utilities are already available, actively supporting redevelopment of older areas and vacant buildings, creating focal points and destinations for the community, reinventing and reinvigorating "downtown", supporting mixed-use areas, maintaining an efficient street network and infrastructure systems, providing attractive parks and pedestrian-friendly connections between neighborhoods, activity centers, the public campus, parks and schools.

In Bossier, the goal is certainly not to end, or even reduce, development activity. Rather, the objective is to actually manage the location and pattern of growth and reward those developers that place an emphasis on the community's values.

The following general benchmarks allow the community to realize when it is promoting and succeeding in Smart Growth activities.

- Development is economically viable and preserves open space and natural resources.
- Existing infrastructure is maintained and enhanced but expanded when appropriate to serve existing and new residents.
- Existing infrastructure is used efficiently by encouraging infill development rather than peripheral development that requires added infrastructure.
- Compact development is focused on existing community centers, new urban villages, and existing and planned transportation facilities.
- Land planning and urban design create a sense of community and ensure the ease of movement and safety of residents.
- "Downtown" and older, established neighborhoods are recognized as being important.
- Land development patterns are concentrated within or immediately adjacent to urban areas where public facilities and services are convenient and can be efficiently utilized.
- Rural areas and other natural amenities are conserved and preserved as agricultural lands or open spaces and are protected from premature encroaching urban development.

Many of the issues of sensible development are addressed through other policy discussion; however, one key element includes the concept of developing only as adequate public facilities are available. One means of ensuring that growth occurs in areas where infrastructure is either present or desired includes the creation of an Adequate Public Facilities Ordinance (APFO). Through such an ordinance, development occurs *prior to or concurrent with development*.

APFOs require all applicants for new development to demonstrate that facilities and services will be available to serve the project at the time the development is available for occupancy. Utilizing this system, the community could adopt a level-of-service standard, which can then be used as a criterion for approving or denying applications depending on conformance to the standards. Issuance of building permits is based upon the proven existence of public improvements or capital facilities. Alternatively, developers could opt to pay impact fees to provide the facilities necessitated by new development.

In addition to its simplicity, this approach is extremely practical and defensible. The key to effectively employing this system, however, is being rational in making determinations of adequacy or inadequacy of public facilities. The strength of this approach is in its ability to allow Bossier to establish a direct, causal link to the public health, safety and welfare issues related to the provision of additional public services.

Key features of an adequate public facilities ordinance include:

- *Level of Service (LOS)* – Key to concurrency is the understanding of a service threshold – the point at which demand exceeds the desired capacity of public facilities. To best determine this threshold, many jurisdictions rely on an established level of service, such as the Highway Capacity Manual developed by the Transportation Research Board to address transportation issues. The difference between the jurisdiction's established threshold LOS and the existing LOS (including the impact of projects existing, underway and previously approved) is generally the amount available to the developer. If the project can be completed and still allow the thoroughfare to operate at or below the threshold LOS, the project meets the APFO. If the project causes operation of the thoroughfare to exceed the threshold LOS, additional steps must be taken prior to approval.
- *Determination of Eligibility* – Projects that will be exempted or receive flexibility in meeting the threshold LOS should be indicated. Those projects are generally exempted or are granted flexibility in meeting the threshold LOS as a result of issues of size, type, location, or as an incentive for their development. For example, Howard County, Maryland exempts one-acre lots in the agricultural district that are available through intrafamily transfer. San Diego, California, on the other hand, provides an exemption to housing projects designed for low-income residents or farm workers. In most cases, exemptions occur because the project offers no significant impact upon the threshold LOS of impacted public facilities. Flexibility may be granted to enhance development opportunities, such as infill housing in urban areas.
- *Timing of Concurrency Tests* - Determination of the existing LOS is predominantly discovered through development of an impact study. The timing within the development approval process of that study and, ultimately, agreement that the project in question can proceed, can play a significant role in the expectations of residents and the accountability of developers.
- *Establish Review Process* – In order to manage APFOs, a body must be created or given the authority to review, oversee and enforce the language of the ordinance. Likewise, a process must be established for application for approval, project review, approval or denial, and appeal. Jurisdictions across the country that utilize concurrency requirements vary in the assigned body and in the required review process. For example, in Monroe County, Florida, the Planning Director is granted the authority of review and approval.
- *Mitigation* – Several remedies are generally in place if a developer exceeds the threshold LOS. Most obvious, the reviewing entity can deny the developer until such time as the project no longer exceeds the threshold LOS. Second, the project, and therefore the project's impact, can be reduced to the point that it meets requirements. Finally, the developer may choose to mitigate the impact of the project by upgrading public facilities or infrastructure as necessary. The result of the latter is that improvements come at a faster rate and at the cost of the market, as opposed to the general public. Terms of mitigation, such as cost incurred by the developer and timeframe for completion of mitigation efforts should be defined in the ordinance.
- *Reservation of Demand* – During the time between approval of a project in accordance with the APFO and the time of project completion, the amount of capacity projected by the developer is "reserved" exclusively for the project and counts against the total capacity of public facilities in future applications for development. To ensure that a project is completed in a timely manner, however, an expiration date can be placed upon approved projects. In this manner, other projects are not unnecessarily burdened or denied and the conditions under which approval was granted are still applicable.

Redevelopment and Infill

Policy: Existing underdeveloped, underutilized and vacant urbanized areas should be aggressively promoted as viable candidates for redevelopment and infill that enhances community value.

As noted in Chapter 4, Market Assessment, proximity pays. As is most often the case, the sites that have the most built in proximity and potential are those currently within the urbanized core of Bossier City. Investing in vacant and underutilized sites benefits the developer because of the proximity to surrounding goods and services. In the case of housing, infill activity generally places individuals within walking distance of daily amenities. For commercial activity, the opposite is true: a built in customer base is already established. More, redevelopment strengthens the urban core and as more redevelopment and infill occurs, the area becomes socially and financially more competitive. When accomplished appropriately, redevelopment and infill activity offer a "win-win" scenario for all parties.

Unfortunately, redevelopment and infill activity face a number of obstacles that have historically proven to make such activity seem less desirable than development along the sprawling outskirts. Following are barriers faced in redevelopment of the urban core.

- *Perception.* The most menacing struggle in redevelopment efforts is often the need to overcome many of the negative connotations that have been attached to infill activity. The common view is that it is too difficult and too risky to develop in the urban core. Before any market studies are conducted, it is often quickly assumed that profit on infill activity will be less than within the suburbs.

- *Land value.* Most often, the direct cost of an acre of farmland is cheaper than the cost of an acre of urban soil, particularly in areas of high demand and activity. However, this cost does not include other direct costs, such as extension of existing services. More, raw land value, even when adding infrastructure, does not account for the indirect expenses such as ongoing maintenance of the extended infrastructure and personal costs of time and money that residents pay to travel farther.

- *Condition.* Horror stories abound about the developer that purchased land within the urban core, acquired financing, gained building permits, began construction and promptly discovered an environmental hazard remaining from a prior property owner. In fact, brownfields exist and their existence can sometimes substantially elevate the cost of development. More, land in the urban area is rarely completely vacant. Existing facilities that cannot be utilized or have fallen into significant disrepair must be removed.

  Site preparation is a standard cost of construction. Demolition simply increases that cost. Unfortunately, the inclusion of environmental hazards such as asbestos, lead based paint or other contaminants add both time and money to a project.

- *Land assembly.* Farmland is commonly available in one or a few large parcels that are easy to assemble and consolidate. In the urban core, the parcels are much smaller, the owners more numerous and the process of clearing and consolidating titles more cumbersome.

- *Clientele.* Fresh, new and rural are commonly considered the prime development characteristics to capture the resources of upper and upper-middle income households. Redevelopment may provide a needed service, but profit is expected to be slimmer because the individuals living in the urban core are not expected to be the "optimal clientele."

- *Financing.* Simply put, it is easier to obtain financing for new development on previously undeveloped land in the suburbs. The perception among many financial institutions is that the risk of redevelopment is too high. In many communities, the major obstacle to urban revitalization is not finding an appropriate developer; rather, it is obtaining financial support.

  Redevelopment is possible in almost any location and can be proven to be more efficient and profitable than suburban investment when barriers are eliminated. Some barriers to redevelopment are very real and must be addressed before a site becomes a viable candidate for development. Others can simply be proven invalid. When redevelopment does occur,

it can transform a struggling community into a thriving, competitive location for residents and visitors. The keys to successful redevelopment include careful and thorough planning, strong community and public commitment, availability of resources and tools needed to remove or overcome development barriers, and selection of appropriate developers.

Since the urban core represents the heart and focus of Bossier City and Bossier Parish, great care and planning should be taken in redevelopment and infill activity. Not all potential redevelopment is desirable or beneficial to the surrounding area. Appropriateness should be determined based upon community needs, the overall vision for the area, the relationship between the site and the surrounding area, and the capacity of the local market.

Quality developers are enticed by a site that offers profit and the opportunity to create "legacy projects" – those model projects that are truly satisfying and successful to both the community and the developer. Legacy projects add to the reputation and marketability of the developer while also providing the community with notoriety and an enhanced quality of life. In both cases, the result of legacy projects is additional interest.

Redevelopment is only possible when barriers are either removed or proven invalid. To aid the developer in overcoming barriers and to make a quality project feasible, Bossier City and Bossier Parish should coordinate to do the following:

- *Establish marketing materials for both developers and financial institutions.* Since perception is commonly the first and foremost barrier to redevelopment it should also be the first (and easiest) to address. Information should be assembled that successfully dispels any perceptions that are brought out during planning and preparation for aggressive redevelopment.
- *Assemble land.* Many communities often shy from the prospect of becoming actively involved in redevelopment efforts. Land assembly is one of those activities that can be conducted by the public sector that can significantly ease the burden of redevelopment or infill activity. Both time and money are necessary to clear and consolidate titles. Utilizing this as a "carrot", Bossier City and Bossier Parish can be in a better position to be selective in the type and quality of redevelopment activity on a site.
- *Determine and address site constraints.* Some constraints are physical while others are financial. Liens and unpaid taxes are as much disincentives to reinvestment as crumbling infrastructure or unneeded structures. To the extent possible, Bossier City and Bossier Parish should aggressively address these issues. A program can be established that utilizes local or federal funds to demolish structures. The parish, School Board and other taxing entities can agree to waive unpaid taxes. Liens can be negotiated and forgiven. Infrastructure can be replaced.
- *Streamline permitting process.* Time is money to a developer. The development community is appreciative and respectful of a municipality or parish that designs the permitting process to improve efficiency and reduce time needed for review and approval.
- *Garner support.* Development becomes more enticing in those communities that are excited and supportive of a project. A community that is ideologically or politically opposed to a project can cause tremendous frustration for a developer and could potentially create problems, including lengthy court proceedings. More, the negativity tarnishes the developer's reputation both within and outside of the community. Through the planning and preparation process, Bossier City and Bossier Parish can set the stage for building community support.
- *Utilize financial incentives.* Some barriers simply cannot be removed. For example, the public sector cannot reduce the value of property. In those cases, the availability of financial incentives not only can add balance in the competition against other sites, but can also make an urban site more attractive.
- *Improve appearance.* Physical appearance plays a major role in the impression of an area. When streets and sidewalks are in disrepair, street lights are worn and outdated, or public facilities are of poor quality they create the impression of a community that either can't afford to maintain a healthy quality of life or,

worse, isn't interested. Capital improvements, landscaping, and dedication to the construction of quality public structures can make a positive impression and potentially aid in attracting premier developers to Bossier.

Urban Villages

Policy: Large areas of Bossier Parish that are located outside of Bossier City and offer few barriers to development should be established as urban villages designed to be largely self-sufficient, diversified, pedestrian friendly, and mixed use.

Bossier Parish offers three areas that are ripe and appropriate for development. Ironically, each area falls at the end of an extensive linear development that has generally followed the roadway network, the AICUZ for Barksdale Air Force Base, and the railroad system while avoiding wetlands and flood prone sites. Development in any of these three areas could likely occur according to common development practices and be successful. However, in doing so, it would exacerbate the current pattern of sprawl and inefficiency and continue to sap strength from the urban core of Bossier City.

An alternative approach is establishment of three urban villages that function as smaller, satellite communities with strong ties to Bossier City.

The concept of urban villages is not new, except in its use to slow suburban sprawl. Even then, the strength of urban villages rests within village design and a focus upon historic development patterns. An urban village recognizes the benefits of community design with a traditional focus on issues such as density, open space, street width, pedestrian-friendliness, amenities, mixed-use development, design, scale, and compatibility with surrounding areas. Transit oriented design often adds to the concepts of the urban village by providing an additional focus on connection of the satellite communities to the urban core and other "nodes" via transit. Ironically, even in urban villages featuring transit oriented design, the primary means of transportation is pedestrian traffic, with transit available for trips outside of the neighborhood.

Characteristics of an urban village typically include:

- Focus on the neighborhood as a single, functioning unit that is part of a larger organization that is the urban village. As a single unit, each neighborhood should have

Urban Village Case Study
South Brentwood Village, Brentwood, California

The concept behind South Brentwood Village was simple: to prove that subdivision development can be successfully designed as an urban village. South Brentwood Village is comprised of only 140 acres, yet despite its small size, the village has been designed with all of the features that are expected in an urban village. Designed around a village green, the development is comprised of more than 500 homes and includes a wide variety of housing. The homes in the village are primarily designed to meet the needs of middle class residents. When appropriate zero-lot line development has been incorporated and to further add to the character of the area all housing units have front porches.

Commercial retail and office space are readily available in South Brentwood Village. In fact, approximately 30 percent of the village is comprised of office and retail activity. In addition, institutional uses such as daycare, a church and ample park space are incorporated into the project.

The development is very pedestrian friendly. The entire site is within a single quarter-mile distance – the maximum distance most individuals are willing to travel before deciding to take an automobile. Sidewalks are separated from the roadway system by street trees. Parks are strategically placed to allow for natural relief and recreation. Both retail and office space are within walking distance and space for a transit station is available.

The street system is also designed to function as a village. Unlike most subdivisions, the project can be accessed from multiple entry points. The layout features a mock-grid system that includes alleys, a traffic circle and a neighborhood boulevard system.

definition. The boundaries or edges of the neighborhood unit should be recognizable, but not impassible. An edge need not indicate that every neighborhood in the village act as a fortress, but as a clearly recognizable entity. Likewise, the village should also offer a distinct edge, particularly in the transition to the urban area.

- An urban village should have a focus. A focus can be a gathering point, such as a park or community center. It may also be a destination such as an elementary school or commercial center. In any case, the focus, like the boundary, should be obvious and should include the character necessary to make it unique or important as a location.
- Pedestrian and vehicular movement are equally important. Many of the newest developments constructed in Bossier are designed as monuments to the automobile with wide streets and incidental sidewalks. While it is not possible or desirable to eliminate automobile traffic, it is possible to make opportunities for pedestrian or bike travel more enticing. Streets should be narrow and easy to cross, sidewalks should be adequate and inviting, trails should be integrated into the system, and the pedestrian network should be capable of delivering the resident along a relatively uninterrupted, direct path.
- Uses within the urban village are mixed to allow for nonresidential activities such as commercial establishments, schools and open spaces. Housing is also mixed to support a wide variety of housing needs. As a rule, higher density housing may wish to be closer or incorporated into commercial opportunities. Most common among urban villages is the use of a traditional village green as the focal point surrounded by first floor commercial and second story apartments.
- Development is compact with a variety of green spaces as relief. Generally, lot sizes are small and setbacks are also reduced.

When including transit, the station is often integrated into the town center with a focus on ease of access. Smaller stations should be located within ten minutes walking distance of every home and convenient to reach. The system should be designed to carry residents to areas within and outside of the urban village.

Ordinance changes will be necessary to incorporate an urban village concept into Bossier Parish and the MPC planning area. Regulations regarding such items as setbacks and lot sizes may have to be adjusted to allow for more dense and creative development. Mixed-use opportunities such as incorporation of neighborhood commercial establishments or low impact home businesses should be permissible. Design guidelines should dictate the foundation for good design, but not restrict freedom of design beyond the desires of the community. Monuments and a variety of open spaces should be a requirement.

Benefits of incorporating urban villages into the MPC planning area include:

- Maximization of areas that are ripe and appropriate for development.
- Condensed development that allows for a stronger sense of community and delays or eliminates development of rural spaces and natural areas.
- Creation of additional parks and open spaces throughout the community.
- Increased density and proximity to services reduces the cost of infrastructure or provision of public services.
- Development containing characteristics of historic small town America is considered aesthetically pleasing.
- Preservation of natural or agricultural areas that would otherwise be consumed for residential sprawl.
- More efficient utilization of space and added cohesion to the surrounding environment.
- Introduction of an added housing opportunity for persons with needs or desires such as affordability, accessibility, housing size, or location.
- Mixed use development allows for opportunities such as home businesses or residential units above commercial establishments.
- Pedestrian-friendly environment designed to decrease dependence on the automobile, including integrated transit opportunities for travel outside of the neighborhood.

- Strong edges that better define the separation between urban and rural areas.

Conservation Subdivisions

Policy: Sensitive development areas throughout Bossier should be allowed to develop by utilizing specific sensitive locations for amenities incorporated into residential development.

Development has occurred along and within the floodplains throughout Bossier for many years. During the majority of time the floodplain offers a wonderful setting for large lot development. However, when flooding does occur, houses that are below the floodline become inundated while those that are above become frail islands. In either case, the damage to personal belongings and potentially life can be staggering.

Many of the sensitive development areas are located within rural Bossier Parish or in areas that include natural resources with environmental and visual value. Yet traditional subdivision design does not offer a flexible means of permitting development while protecting sensitive areas.

Conservation subdivision techniques offer a means to protect sensitive areas from development while still allowing limited development to occur. To do so, however, requires a significant change in the design process and the reintegration of creativity into the development pattern.

As discussed in *Chapter Nine, Housing*, the concept behind conservation subdivision techniques is simply to achieve the appropriate number of units allowed on a site, but to do so in a way that permits sensitive areas to be preserved. In this case, lot size becomes less of a factor, except to provide a minimum size permitted for development. That minimum is commonly as low as practical to permit added flexibility to the developer. However, the concept is not designed to add lots to the site. Rather, the reduction in lot size is offset by the amount of open space that is required for conservation.

Preparing for use of conservation subdivision techniques involves significant analysis of the MPC planning area and a determination by the MPC, Bossier City and Bossier Parish of those areas and elements that are to be classified as primary and secondary conservation areas. The process begins in development of a community resources map that, according to Randall Arendt, one of the world's leading experts in conservation oriented development, should include wetlands

Conservation Subdivisions Case Study
Prairie Crossing, Lake County, Illinois

Generally, design for a subdivision featuring 317 single family homes on 667 acres would include a mix of standard and large lot development that would encompass an entire project site. However, the developer of Prairie Crossing located outside of Chicago, Illinois had a different idea. Rather than replace the farmland, woodlot and wetland with a typical subdivision, the developer recognized that all three characteristics represented the type of scenery that the potential resident would be looking for. The developer also realized that there was no guarantee that the surrounding area would be able to supply that scenery permanently.

Utilizing conservation subdivision techniques, Prairie Holdings Corporation, was able to successfully preserve more than 70 percent of the site. Lot sizes were smaller than typical rural subdivision design, ranging from 6,000 square feet to 20,000 square feet. However, in return for a reduction in lot size, all homes front upon open space that is preserved to give the appearance of an agriculture-era hamlet nestled in the various rural characteristics of Illinois. To better accommodate the needs of the potential resident, homes were divided into 60 village lots, 131 meadow lots, 54 field lots, and 72 prairie lots.

Open space in the community is preserved through a management plan specifically designed to address the natural amenities of the area. Cost of maintenance of the open space is shared by all homeowners. The wetland is given specific attention and a great deal of effort has gone into establishing a stormwater management system based upon narrow streets and extensive use of native plants for filtration. As a result, the runoff that reaches the wetland is only one-third of the original amount while water-born pollutants are reduced by 85-100 percent.

and buffers, floodways and floodplains, woodlands, productive farmland, significant wildlife habitats, cultural features, and scenic viewsheds along corridors. Once these items are located, the MPC, City and Parish must make a determination of those elements that will be classified for primary conservation and others that will be considered for secondary conservation. Primary conservation areas will include those areas that are "sacrosanct" and unbuildable. In this case, those features are likely to be floodplains, wetlands, significant wildlife habitats, and specifically designated areas of the Barksdale AICUZ. Secondary conservation areas will include elements that add to the character of the area or are not recommended for construction. Unlike primary conservation areas, however, secondary conservation areas are available for development if no other alternative is available. Secondary conservation areas may include woodlots, productive farmland, scenic viewsheds, and those areas of the AICUZ in which very limited development is acceptable.

The capability of conservation subdivision techniques to conserve natural resources not only depends on designation of conservation areas, but also upon the subdivision standards that will be applied to development. Together, minimum lot size and the percent open space required will determine the number and size of lots that will be available for development. Both are important to determining the density and character of the subdivision. Density is calculated based upon the amount of buildable land - once unbuildable, primary conservation areas have been removed from the equation. Because secondary conservation areas are buildable, they are considered in calculation of total permitted dwelling units.

In an interesting variation on the concept of subdivision design, Randall Arendt proposes a sliding scale development scenario in which a developer may opt for few units in return for reduced open space requirements. On the other hand, a developer may likewise opt for additional lots, but must add to the percentage of available open space. In this manner, the developer has flexibility to design to the needs of the local market.

Open space available in a conservation subdivision is often owned by the subdivision, protected by a private conservation easement and maintained through the annual fees of the homeowners' association. On the other hand, a developer or subdivision can opt to dedicate the property as public park space.

One concern regarding the open space preserved in conservation subdivisions is the question of upkeep. A conservation area that is not appropriately maintained will prove noxious and useless as an enjoyable natural area. Options for upkeep include placing property under the protection of a trust or management by a homeowners' association. It is recommended that maintenance of the open space be addressed through subdivision covenants or development of a management plan.

Intergovernmental Coordination

Policy: Aggressively promote dialogue and joint activity among various government entities to maximize efficiency and quality of public facilities and services.

The mantra throughout the development of policies and strategies for the MPC planning area has been the efficient use of physical, social and financial resources. At no point is this clearer than in the need for coordination between government entities. As a regional entity, the Bossier City-Parish Metropolitan Planning Commission coordinates with Bossier City and Bossier Parish. However, additional government entities in the MPC planning area include three volunteer fire departments, the Bossier Parish School Board, Bossier Parish Community College, the U.S. Air Force at Barksdale AFB, various agencies associated with the State of Louisiana, Northwest Louisiana Council of Governments, Red River Waterway Commission, the Port of Shreveport-Bossier and other entities. Each is charged with specific duties, establishes regulations or assesses taxes, and requires staffing and facilities.

Efficiency in utilizing the resources of the MPC planning area begins with the government entities that comprise the public sector. Careful analysis of the various government functions and needs would likely result in numerous opportunities to streamline services, share facilities, coordinate efforts, and generally follow a common vision.

Following are opportunities to coordinate among government entities for the purpose of improving development, preserving resources, and enhancing overall quality of life.

- *Establish a common set of development standards that appropriately represent and maintain the character of both the City and Parish*. Addressed to a limited extent as a component of housing, the concept of character has been a long-standing point of discussion in Bossier. The current development regulations apply a single standard to all subdivision development within the MPC planning area. As a result, subdivisions in the rural areas must provide the same product as found in the urban area, including sidewalks, street lights, and curbed streets. The benefit to this is that as the urban area grows to encompass rural subdivisions the urban features will already be in place and developed in a way that Bossier City can accept them into the municipal system. The deficit, however, is that the character of rural development is lost and the cost of development increased.

  In truth, both arguments have merit. The cost of bringing a subdivision "up to acceptable city standards" can be significant. At the same time, community character is fragile and should be protected.

  The Comprehensive Land Use and Development Master Plan indirectly proposes a solution in that new development outside of the existing urban core is to be developed in urban villages or following conservation subdivision techniques. The character of the two styles of development is distinctly different: urban and rural.

  A more direct solution includes development of a series of overlays that divide the MPC planning area according to urban and rural development standards. Those areas designated for rural development can conform to a set of standards specifically created to maintain the rural atmosphere including extensive open space, limited development and minimized urban characteristics such as curbed streets and street lights. Other options include replacing some sidewalks with enhanced trails and required visual connectivity. Urban areas would meet improved standards for development, including reduced road width, pedestrian friendly design, and mixed use development.

  While dividing the character of the MPC planning area into urban and rural components may reduce the standards for rural development, the reduced cost is offset by the smaller number of units available and the

Intergovernmental Coordination Case Study
Chester County, Oregon

In 1996, County Commissioners in Chester County, Oregon adopted a new Comprehensive Plan. Appropriately entitled *Landscapes*, the primary focus of the plan was to address the increasing impacts of sprawl upon the visual, economic and social surroundings of Chester County and to particularly preserve the surrounding rural character. In doing so, planners divided Chester County into four distinct landscape types with specific objectives:

- *Urban Landscape Objective:* Strengthen urban centers to serve as mixed use centers of concentrated commercial activity, employment opportunities, institutions, and residential variety to increase diversity and provide a sense of community;
- *Suburban Landscape Objective:* Concentrate new residential development in Suburban Landscapes and concentrate industries and offices at locations adequately served by necessary infrastructure and accessible to employees;
- *Rural Landscape Objective*: Preserve the open, rural character of Chester County, supporting agriculture as the primary land use while enhancing villages to accommodate future development; and,
- *Natural Landscape Objective:* Restrict development in areas with significant natural resources including stream corridors, woodlands, wetlands, groundwater recharge areas, steep slopes, and ridge tops.

More, the County Commissioners are taking an aggressive intergovernmental approach to ensure that the plan is utilized by local municipalities. Chester County proposes that all governing bodies throughout the area become "Vision Partners" and adapt their plans and policies to coordinate with those established in *Landscapes*. The county has offered between $50,000 and $75,000 to each municipality to cover the expense of changes. In return, the county offers "carrots" to reward municipalities that agree to work together. Plan Implementation Grants are made available to aid in meeting the goals of the plan. Community Development funds are funneled to communities for projects that correspond to the plan. Further, the county actively coordinates with municipalities on common projects, such as corridor enhancement and well head protection.

increased percentage of open space that is required. Further, it is unlikely that rural character areas will be annexed because of the limited development potential established in the sensitive development areas. Urban villages, on the other hand, will be designed to appropriately meet the urban standards and will provide for increased density in the urban area.

- *Share facilities and services.* For a long period in the history of public sector development, government has become reliant on single use facilities outside of "city hall" or "the courthouse." More, general opinion among government entities was that each entity should be entirely self supportive and separate. Now, governing bodies are once again beginning to realize that facilities can perform multiple functions and, as important, can serve several entities.

  Government buildings have long been an important component to neighborhood and community development. Historically, such facilities have not only served to provide government services, but have also been gathering places for area residents. For decades, the neighborhood designed with the elementary school as the focal point was considered optimal because the school served numerous purposes. The open area and playground around the school functioned as a neighborhood park. The library served as a public library. The auditorium could be used for community functions and religious services. It also commonly served as an emergency shelter in a time of crisis.

  Today, as each entity searches for ways to maximize the use of tax revenue, the concept of joint use takes on additional meaning. By combining resources, entities can once again consider building landmark local government structures. More, combined services can result in added services or benefits. Many communities have moved to "one-stop shops" at which a variety of related services are available.

  At the forefront, once again, are local schools. Elementary schools have the opportunity to once again become the focal point of residential development, including the chance for children to safely walk to school. More, school playgrounds are being developed to a new standard and integrated into the public park system. Schools are also becoming the home of the local library, further expanding the funds available to both the school system and the library system.

  Community centers are also taking on new roles, including incorporation of additional uses outside of the public spectrum. Centers now function as recreation centers, health clinics, classrooms, emergency shelters, offices for nonprofit organizations, police/sheriff stations, job training facilities and business incubators.

  Facilities are not the only item that entities can share to the benefit of the community and local development groups. Entities can establish complementary development processes and requirements.

  Among the more difficult tasks for local developers is remembering the different development requirements for the various jurisdictions in a region. The Comprehensive Land Use and Development Master Plan offers Bossier City and Bossier Parish the opportunity to establish similar permitting requirements beyond those of the MPC. Complementary processes could include applications, timelines, fees, reporting, and overall requirements.

Chapter 13 Implementation

The foundation for improving quality of life in Bossier is in place. The community has a strong vision and goals to guide the process. Each of the issues important to the community has been analyzed and opportunities for action have been proposed. Policy statements have been developed that summarize the many issues heard throughout the process into six simple principles. Now, the final and most important hurdle: *implementation*.

> *Thoughts lead on to purposes; purposes go forth in **action**; actions form habits; habits decide character; and character fixes our destiny*
>
> ***- Tyron Edwards***

Implementation is considered the most critical stage of the planning process because it is the point at which the Comprehensive Land Use and Development Plan will be launched from theoretical discussions into reality. This is the stage at which many planning processes halt and is the single most significant reason that many planning processes are said to "only create documents that sit on a shelf and collect dust." Goals, objectives, action statements and policies that sounded "visionary" and "groundbreaking" during the months of problem solving must now stand up to the rigors of competing for resources and attention. Funding, staffing, available time, and proper attention must now be paid to taking the mountain of action statements produced by the planning process and turning them into regulations, programs, capital improvements, agreements, additional studies, incentives, and nearly every other type of activity or process. Questions now arise such as "Which actions should be implemented first?" "Who is responsible?" "How long should it take?" "How much should it cost?" "How do we know if we are successful?"

The Implementation Chapter has been designed to address these issues and ease the transition between planning and implementation. Its purpose is to put the work conducted throughout the planning process into focus by combining the various action statements and placing them into an Implementation Plan that addresses questions such as timing and responsible entities. Additionally, the chapter offers options and recommendations that have proven useful in other communities in implementing a comprehensive plan. The chapter is comprised of three sections, each with a specific role in establishing implementation measures for the jurisdiction of the Bossier City-Parish Metropolitan Planning Commission.

Strategies for Implementation – includes a number of methods to ensure a successful implementation process.

Ongoing Planning – asserts the need for a "living" plan and processes that can be established to ensure that the plan continues to reflect the needs of the community.

Implementation Plan – a compendium of actions stated throughout the Comprehensive Land Use and Development Plan with added information needed for implementation.

The implementation chapter concludes the Bossier Comprehensive Land Use and Development Plan, but it by no means concludes the process. The first step has been taken on a long journey that, in the end, could be a legacy to those in Bossier with the vision to boldly plan for change and for the future.

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Market Assessment
Land Use
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Transportation
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Housing
Image & Design
Facilities & Education
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Implementation

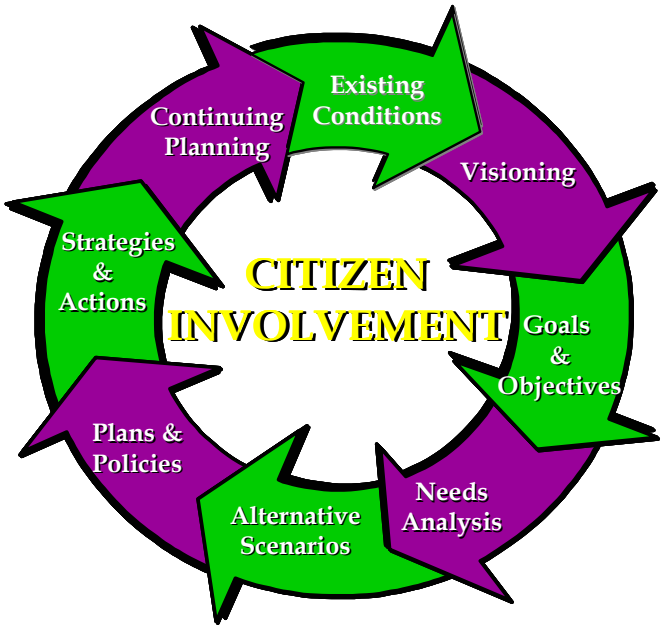
Strategies for Implementation

Implementing the Comprehensive Land Use and Development Plan will be more than simple changes in land regulations. The Plan represents a paradigm shift to a community that aggressively applies its vision and principles in daily decision-making and actions. Those efforts will require both will and a consistent reminder of the importance of supporting the plan.

Form an Implementation Task Force

Momentum must not be allowed to falter once the plan has been adopted. Immediately following approval of the plan, the MPC, Bossier City Council and Bossier Parish Policy Jury should establish an Implementation Task Force. The role of the Implementation Task Force is to refine and prioritize the Implementation Plan and initiate action. The membership of the task force may include key members of both City and Parish staff; liaisons of the MPC; representatives of Bossier Parish School Board; select members of the development and business communities; individuals from other public agencies and institutions; leaders from organized neighborhoods and civic groups; and residents of the MPC planning area.

While the implementation plan is a beginning, the Implementation Task Force will be charged with the tough task of honing actions beyond the information provided in the Plan. The task force will determine methods or programs to be used to implement the proposed actions, specifically identifying which agencies/departments will be responsible for their implementation, estimate costs, identifying proposed sources of funding and establish a time frame in which the recommended action will be accomplished.



The work of the Implementation Task Force should be short term, but should also occur annually. The product of the task force should be a strategic proposal of actions to accomplish or initiate within the year. Departments and organizations charged with completing tasks, or aiding in their completion, can use the proposal in the budget process and in determining other needed resources. City Council, the Police Jury and other governing bodies can utilize the proposal for overall budget and resource decisions as well as establishing benchmarks for departmental performance.

Maintain Citizen Involvement

Citizen participation has been a cornerstone of the process to create the Plan. It is, however, even more essential to ensure the success of the Plan. In order for the Plan to be successfully implemented it must continue to enjoy the support and understanding of the general public and civic leaders of Bossier City and Bossier Parish. To do this, leaders within the community must pledge their support to maintain public involvement, awareness and commitment of the purpose and importance of the Plan.

The vision, goals, objectives, actions and policies of the Plan are a representation of the ideals of citizen and local leaders that placed significant effort playing a role in the planning process. Citizens should continue to be involved in implementation and maintenance of the Plan. Advisory committees, public meetings and community workshops, town hall meetings, open houses and public forums, newsletters, media releases, and public notices should be used to inform and involve citizens in continued planning. Methods and activities for public participation should be carefully chosen and designed to achieve meaningful and effective involvement.

Quality is Key

The Plan is designed to improve and enhance the quality of life for current and future residents. It is meant to provide a standard of excellence by which future development, programs and activities can be measured. It is this level of quality that is highly desired by stakeholders in the community, whether it is in terms of housing, infrastructure, parks and recreation areas,

neighborhoods, business districts, gateways and corridors, or simply Bossier's approach to its future.

Quality is consistently mentioned throughout the Comprehensive Land Use and Development Plan. It is a standard to which all elements of the Plan should be held. New facilities should be designed as landmarks with an understanding of their ability to positively impact the surrounding environment. Gateways for the community should represent the character of the community. Programs created as part of the plan should establish best practices for other communities to follow.

Make Success Quick and Constant

A strategy used by successful organizations is to seek results early in the implementation process. By doing so, stakeholders are able to see the benefits of their involvement. Momentum is a result, which naturally solicits more involvement by persons desiring to be involved in a successful program. In the Implementation Plan provided below, there are various recommended actions that do not bear significant budgetary obligation. These programs and activities provide an immediate opportunity to make an impact on the community, and thus on the successful implementation of this Plan.

Success is a powerful tool for marketing the Plan. As such, serious consideration should be given to making sure that successes are consistent throughout the implementation process. Some actions will take longer to complete than others. Those projects should commence in a timeframe that will allow for both balancing resources and constant success.

Solve Problems Creatively

As the planning process unfolded, participants in the process were challenged to "think outside of the box" and consider such nontraditional concepts as establishing "urban villages," "concurrency requirements" and reduced street width. In order to seek continuous improvement it is necessary to be creative and innovative in an approach to solving key issues and problems. It is this ability to overcome what may ordinarily be considered obstacles that will demonstrate the community's willingness to achieve the overall vision, including the use of creative solutions. An example may include a public-private partnership to seek objectives and results that may not be possible without a joint venture, such as the development of an otherwise constrained property.

Share Responsibility and Rewards

The structure of the MPC is strongly positioned to coordinate many of the implementation tasks associated with this plan. However, implementation of the Plan should not rest on any one individual, entity or organization. Instead, the vast array of stakeholders that play a role in the future of the community, including the general public, should always remain centrally involved in the process. Government entities such as the City of Bossier City, Bossier Parish, Bossier City-Parish Metropolitan Planning Commission, and the Bossier Parish School Board should remain heavily involved and consider the plan's goals, objectives and overall direction when considering various issues. Similarly, as successes occur, the rewards and benefits of the program should be shared appropriately among stakeholders.

The Role of the Public

Bossier's citizens contributed to the development of the plan's goals, objectives and actions by participating in public meetings, focus groups and via the project's web site. The ideas and comments contributed by citizens during the plan's development process were incorporated and shaped the resulting proposals and recommendations. Citizens should continue to be involved in implementation and maintenance of the Comprehensive Plan. The Metropolitan Planning Commission, stakeholder groups, public meetings and community workshops, town meetings, public forums, newsletters, media releases, and public notices are all mediums that should be utilized to inform and involve citizens in the planning process. Actual methods and activities for public participation should be carefully chosen and structured to yield meaningful and effective involvement.

Role of the Metropolitan Planning Commission

The Bossier City-Parish Metropolitan Planning Commission should prepare an Annual Report of Progress for submittal and presentation to the City Council and the Police Jury. Status of implementation for the various aspects of the Comprehensive Plan should be central to this report. Significant actions and accomplishments during the past year should be recognized and recommendations should be made for needed actions and programs to be developed and implemented in the coming following

year. The annual report should be coordinated with the development process of City and Parish annual budgets so that recommendations will be available early in the budgeting process and requests for capital improvements and major programs can be reviewed.

Several tasks set forth in the Implementation Plan will be the initial responsibility of the MPC. Preparation of studies, ordinances and some programs will likely be completed by the MPC prior to submission to City Council or the Police Jury. In other cases, the MPC will play a strong role as the "Plan Cheerleader." The MPC and associated staff will be responsible for ensuring that the Plan impacts daily decision-making and actions by other stakeholders.

The Role of the Bossier City Council

The role of the Council is commonly one of checks and balances relative to the actions by the MPC. While this should remain the case, the Comprehensive Land Use and Development Plan seeks stronger roles from City Council, including coordination and implementation of specific actions.

Many of the tasks presented as action statements in the Plan require the participation of various city departments and outside partners. City Council can ensure that departments continue to follow the spirit and policies of the Plan and implement the needed actions. Active support of Council will also be a strong signal to potential private and public partners that elected officials believe in the merits of the Plan.

The Council will also play a significant role in the ability of entities to carry out regulatory, programmatic and capital improvements cited in the Plan. In many cases, the Council will be offering final approval of projects and their costs during the budget process. The ability to provide resources to many of the tasks required to implement the Plan will rest, at least partially, with Council.

The Role of the Bossier Parish Police Jury

With the largest amount of land available for development that is both cheaper and less regulated, the Bossier Parish Police Jury is poised to receive the most pressure to deviate from the vision and goals of the Comprehensive Land Use and Development Plan. As a result, the importance of the Police Jury to the success of the Plan is tremendous.

Additionally, Police Jury shares many of the responsibilities of the City Council. It brings balance and judgment to the planning process while also coordinating and funding relevant program and capital improvements proposed in the Plan.

The Role of the Bossier Parish School Board

Quality education is a necessity for Bossier. Equally important to the Plan, however, is the location and use of school facilities. By enhancing their neighborhood school concept, the School Board should have the ability to continue to provide quality education in a setting that creates and maintains a sense of community ownership. To do this and assist in other action statements, the BPSB should be recognized as a partner in the successful implementation of the Plan.

Integrative Planning

Opportunities for integrating the Plan's recommendations into other business practices and programs of the City, Parish, School Board, and other government entities play a vital element toward widespread recognition of the Plan as a decision-making tool. For instance, the Plan's recommendations should be widely used in decisions pertaining to infrastructure improvements, proposed new development and redevelopment, expansion of public facilities, services and programs, and the annual capital budgeting process. The Plan should be referenced often to maintain its relevance to local decisions and to support the decisions that are being made.

Finance Creatively

There are a variety of financing tools and techniques that are available to the City and Parish, which are not commonly used by municipalities. These tools, under the right circumstances, may be used effectively to finance public improvements and to provide incentives to private businesses. Access to grants and loans from public and private sources is a prime example from the standpoint that they are rarely used to the extent possible. Literally millions in available resources go unutilized every year, the majority of which are available to government entities or partner nonprofit organizations.

Ongoing Planning

A good plan is one that continues to reflect the current conditions and character of the community. As new issues arise, the Bossier Comprehensive Land Use and Development Master Plan will require modifications and

refinements to remain relevant and resourceful. Over time, some action statements will be found impracticable or outdated while other plausible solutions will emerge. Refinements and changes should occur consistently, but with minor changes occurring annually and more significant modifications taking place every five years. In some cases, simple changes to action statements may be necessary. In others, entire goals may need to be modified. Even the overall vision of the plan should be consistently scrutinized to ensure that it is reflective of the hopes and needs of the community.

At the same time, while changes are necessary, any change should be strongly considered for its long term impact upon the community and the guiding vision. Adjustments should be thoroughly documented and justifiable to both the general public and Bossier's leaders. Throughout all, the vision should remain the central theme and provide a unifying element. The plan's value rests in the pledge of citizens and leaders to follow Bossier's vision for the future and to apply that consensus toward sustained efforts that focus on the betterment of the community.

Annual Plan Amendment Process

Annual plan amendments will provide the opportunity for relatively minor plan updates and revisions such as changes to future land use designations, implementation of actions, and review of plan consistency with ordinances and regulations. Plan amendments should be prepared and distributed in the form of an addendum to the adopted Comprehensive Land Use and Development Plan. Identification of potential plan amendments should be an ongoing process by the Metropolitan Planning Commission as well as City and Parish staff throughout the year. Requests for plan amendments can also be submitted by citizens, property owners, community organizations and other governmental entities. Proposed plan amendments should be reviewed and approved by the MPC. Plan amendments should be adopted in a manner similar to the plan itself. This process includes public hearings and consideration of action by the MPC, City Council and the Police Jury. Plan amendments are typically adopted by resolution.

Major Updates of the Comprehensive Plan

A major update of the Plan should take place every five years. Each update will ensure renewal and continued use of the Plan by the MPC, City and Parish officials and staff. Annual plan amendments from the previous four years should be incorporated into the next major plan update. Plan updates will be a significant undertaking involving public officials, departments, stakeholders and citizens. Consultant services may be utilized if needed. The result of the major plan updates will be a revised comprehensive plan for the City, including identification of new or revised information that may result in an updated set of vision, policies, goals, objectives and action statements.

Implementation Plan

The Implementation Plan is an enhanced summary of the action statements and activities discussed throughout the Comprehensive Land Use and Development Plan. More than a simple compilation of actions, the Implementation Plan sets the foundation for carrying out activities by addressing important components of priority, time and responsibility. It is designed to spur success, as well as begin a system of accountability in implementation by assigning specific tasks to appropriate entities.

The Implementation Plan is divided into five sections according to type of action proposed:

Programmatic Improvements – Programmatic Improvements refer to action statements that require development or implementation of a particular program. Programs can be implemented for each of the various elements of the Comprehensive Land Use and Development Plan, but are most prevalent in Parks & Open Space, Housing and Facilities & Education chapters.

In comparison to other types of action statements, Programmatic Improvements can have a significant range from inexpensive to very expensive. Cost is impacted by a number of variables, most particularly staff requirements and longevity of the program. Most programmatic improvements will be renewed annually based upon performance, impact and available resources. Programmatic improvements are developed and maintained by a number of parties, including public, private and nonprofit entities.

Examples of Programmatic Improvements include:

- a program to acquire easements or development rights in Sensitive Development Areas;

- coordination to expand after-school programs for youth;
- a park and ride program to provide ridership opportunities to and from communities in the planning area;
- coordination with local lenders and manufactured housing builders/retailers to develop a home "upgrade" option that allows purchase or trade-in to replace older manufactured housing; and,
- incentives to encourage development contiguous with existing urban development to minimize disturbance of the surrounding rural character.

Regulations, Standards and Policies – Regulations, standards and policies refer to action statements that are met through changes in governance. Regulatory changes involve altering the existing code of ordinance. Standards impact ordinances, but do not necessarily have to a written component of an ordinance. Standards may also be voluntary, privately enforced or based on meeting a series of incentives. Policies generally guide the active use of regulations and standards.

Regulations, standards and policies appear to be most prevalent in addressing land use issues.

The costs associated with action statements related to regulations, standards and policies are largely short term. Long term costs come with added or reduced staff, hours, and capital required to implement changes. Policies that require development of a program for operation have been categorized as programmatic improvements.

Examples of actions related to regulations, standards and policies include:

- changes to subdivision and zoning regulations that will permit mixed use, cluster development necessary to implement an urban village;
- utilizing development guidelines, standards and incentives as a means of maintaining quality design and preservation of local character;
- establishing policies and regulations regarding the use and development of flood and drainage ways, abandoned railroad, vacated alleys, and other rights-of-way and easements;
- adopt/reinforce a driveway ordinance to include guidelines regarding the design, construction, location, and width of principle and minor arterials and collector roadways; and,
- Neighborhood retail and service uses should be located at intersections of arterial or collector streets.

Capital Improvements – Capital improvements involve all action statements in which development or revitalization of a physical element occurs. Capital improvements generally require some form of construction and can range from the massive, such as development of a regional park, to the specific, such as placement of new play equipment within the regional park. Like the scale of the project, the costs for capital improvements can also be broad, ranging from very expensive to limited. However, unlike programmatic improvements, the majority of expense is incurred at the outset for purchase and construction. This may include land, labor, equipment, or materials. Long term costs for capital improvements are generally related to maintenance.

Capital improvement action statements are most prevalent when dealing with parks, open space, the transportation network, infrastructure, utilities, and facilities. Examples of capital improvement action statements include:

- acquire and develop 58 acres of neighborhood and community parks within identified deficiency areas;
- extend Shed Road to Bellevue Road in the Red Chute area;
- implement grade separation on Benton Road at the KCS line;
- complete a water system loop in River Bend subdivision;
- incorporate sidewalks into all neighborhoods; and,
- implement library expansion plans.

Further Plans and Studies – Further plans and studies represents action statements that have established a need for further development in a specific area. Such plans and studies are supplementary to the Comprehensive Land Use and Development Plan. Some should be considered as potential appendices of the plan while others represent separate and independent efforts. Action statements requiring further plans and studies may

include traditional plans such as neighborhood studies or may be focused on such efforts as grant proposals or trail design. Some actions statements require significant added study in order to prepare for a programmatic, capital or regulatory improvement. In those cases, the action has been categorized under Further Plans and Studies.

Compared to capital improvements and programmatic improvements, development of further plans and studies is relatively inexpensive. Because several action statements are far reaching, further studies and plans can be found in every element of the Comprehensive Land Use and Development Plan. Examples include:

- identify areas of repetitive structure flooding where mitigation activities may result in publicly owned space;
- prepare a parish-wide parks, recreation and open space master plan with specific needs for facilities and improvements within Bossier Parish;
- develop a capital improvements program for parks, recreation areas and facilities in Bossier City and Bossier Parish;
- seek federal and state financial assistance grants for pedestrian and bicycle transportation projects;
- study and improve movement of goods between Bossier Industrial Park, the Port, and airport facilities; and,
- examine local regulations and the approval process to determine if either contributes substantial cost to housing.

Ongoing Coordination and Management – Ongoing coordination and management action statements are those that require continued efforts, often between organizations. Unlike many other action statements, most actions requiring ongoing coordination and management are relatively inexpensive, although staff resources are necessary to allow for meetings, monitoring results, preparing reports, and other management activities. Ongoing coordination and management actions can range from coordination between stakeholders to managing facilities and programs. While many of these action statements also include some programmatic, capital or regulatory improvement, the significant majority of the task is focused upon the process that creates the product.

Ongoing Coordination and Management action statements are spread among all of the elements of the Comprehensive Land Use and Development Plan. Examples of such actions include:

- coordinate participation between Barksdale AFB, Bossier City and Bossier Parish in addressing the AICUZ;
- report progress on meeting the goals of the Comprehensive Land Use and Development Plan;
- conduct annual physical condition assessments of existing parks to identify necessary improvements;
- establish cooperative agreements with developers and landowners to develop parkland in new residential areas;
- establish and maintain relationships with area builders and financial institutions to determine interest in affordable housing programs; and,
- Assist neighborhood organizations in development of deed restrictions.

Each action statement in the Implementation Plan is provided a potential date for completion and stakeholders are mentioned that should either manage, complete or assist in achieving the task. Time for completion is divided into three categories, including projects to be completed in 0-2 years, 3-5 years, and longer-term projects. The amount of time given to complete each task is partially attributable to the amount of finances and other resources necessary.

A project with little cost and effort can be achieved relatively quickly.

Actions to be completed in 0-2 years – These action statements require a limited budget obligation and few additional resources. These projects can be achieved quickly and reported as "success stories" to maintain public interest and excitement in the plan. Projects requiring less than three years to complete will often be regulatory improvements. Unlike other improvements, regulatory activity can be adjusted with little expense. Programmatic and capital improvements may be complete in three years, depending upon project scale.

Actions to be completed in 3-5 years – Mid-range timelines are commonly granted to those projects that require a moderate budgetary obligation, additional resources beyond those necessary for a "quicker" project,

or simply require this amount of time for completion. Large scale studies and plans may fall into this category. Capital and Programmatic improvements with a mid-range scale and cost are also common candidates.

Actions to be completed in more than 5 years – Action statements that fall into this category generally have a significant budgetary obligation or require significant resources and time for completion. Capital improvements are the most likely candidate for long range completion.

Note that a number of actions, particularly ongoing coordination and management activities, will require constant application to be successful. In those cases, all time categories are highlighted to indicate the need for ongoing activity.

The Implementation Plan is not an indication that all action statements listed as possible to be complete within two years should actually be completed in the first two years from adoption of the Comprehensive Land Use and Development Plan. A large number of actions can be achieved in a short period of time, but to attempt to tackle all of them within the same timeframe would result in significant cost, staffing issues and implementation "burnout." Instead, projects should be prioritized by the MPC, City Council, Police Jury and other major stakeholders and meted out over the life of the Plan. This will ease the financial and staffing burden on stakeholders, prolong excitement about the ongoing success of the plan, and avoid potential backlash that is common with sudden and wholesale change.

In addition to timeframe, the Implementation Plan assigns stakeholders that have the potential to play a role in achieving action statements. In a great many cases, the MPC, City Council and Police Jury are considered prominent stakeholders. Other organizations are listed as their role becomes prominent.

Like the timeframe, the assignment of stakeholders to a task should not be taken lightly. An organization that is overwhelmed with potential activities will likely fare poorly or be unsuccessful. As mentioned previously, the work effort and success of the program should be shared among stakeholders.

The likely body responsible for either initiating or carrying out an implementation action is identified in the "Department" column of each action statement. Abbreviations identified in the tables are shown below.

BAFB	Barksdale Air Force Base
BPL	Bossier Parish Library System
BCD	Bossier Community Development Department
BPCC	Bossier Parish Community College
BPSB	Bossier Parish School Board
CC	Bossier City Council
CCC	Clean City Committee
CORP	U.S. Army Corp of Engineers
CoS	City of Shreveport
ENG	Bossier City Engineering Department
LADOTD	Louisiana Department of Transportation and Development
MO	Bossier City Mayor's Office
MPC	Bossier City-Parish Metropolitan Planning Commission
NG	Neighborhood Groups
NLCOG	Northeast Louisiana Council of Governments
OTHER	A number and variety of organizations
PHD	Bossier Parish Highway Department
PJ	Bossier Parish Police Jury
PR	Bossier City Parks and Recreation
PW	Bossier City Public Works
RRWC	Red River Waterway Commission
SPORT	SPORTRAN
RRs	Railroads
VFDs	Volunteer Fire Departments

Finally, while not specifically included in the Implementation Plan, the various other "plans" established through development of the Comprehensive Land Use and Development Plan should be incorporated into daily decision making. These plans include:

- the Future Land Use Plan as a general guide for decision-making in zoning cases and subdivision plat review approvals. Utilizing this plan ensures that development and redevelopment are consistent with the policies of the Comprehensive Plan;
- the Thoroughfare Plan for use in subdivision plat review and dedication of needed rights-of-way for street and highway improvements; and,
- the Parks System Master Plan that aids in identifying and implementing park and recreation

improvements and enhancements, concurrent with new developments.

Perhaps the most important component of implementing Bossier's Plan is derived from the day-to-day commitment of elected and appointed officials, municipal/parish departments, and citizens of the community. The Comprehensive Plan must be perceived as a useful and capable tool in directing the area's future to achieve the community's desired vision. The Land Use and Thoroughfare Plans and other key elements of the Comprehensive Plan should be displayed and available for ready reference by public officials, staff, and citizens. The Comprehensive Plan should continually be referenced in planning studies and zoning case reports as well as informal discussion situations.

Strategic Actions

As a step to improve implementation readiness, members of the Bossier City-Parish Metropolitan Planning Commission, Bossier City Council and Bossier Parish Police Jury participated in an action workshop facilitated by the Consultant Team. The purpose of the extended workshop was to prepare for implementation of the Comprehensive Land Use and Development Master Plan by participating in a priority-setting exercise. The Implementation Plan shown in the tables following this page was utilized as a basis for establishing the highest priority actions to be acted upon in the initial phase of implementation.

The priority-setting exercise allowed each participant to vote for what they individually believed to be the most important actions to take within the first year of the plan implementation program. Each participant was given colored dots (separated by governing body) with which to place their respective votes. The votes were cast by category including programmatic initiatives; regulations, standards and policies; capital improvements; further plans and studies; and ongoing coordination and management. In addition, they were cast by plan element so as to identify the top priorities within each respective element of the plan, e.g. land use, transportation, parks and recreation, utilities and infrastructure, etc.

This democratic exercise effectively determined the highest implementation priorities by consensus of the elected bodies. Those who elected to attend the workshop are assumed to be representative of the balance of their respective boards. The actions receiving the most votes, by virtue of having the most colored dots, are those considered by the elected officials to have the most significant impact on the City and Parish and are therefore, the highest priority implementation steps. Actions that were identified as a priority are shown in bold in the implementation tables.

There were several observations made during the course of the action workshop that offer insight into the direction of the Comprehensive Plan, including:

- With very few exceptions, the actions that were identified as the highest priorities were selected by a large majority of the elected officials who participated in the workshop.
- The actions selected as the highest priorities provide an indication of the foresight and preparedness of the City and Parish to be proactive rather than reactive in planning for their future.
- Many of the initiatives will require action on behalf of both the City and Parish thereby necessitating ongoing communication and coordination.
- The City will likely be the lead agency responsible for implementation for many of the recommended actions due to their staff and financial resources.
- The City and Parish understand their shared responsibility to direct new development to occur in areas that can be efficiently served by adequate facilities and services.
- The recommended actions that received the most attention included those that enhance quality of life and community betterment such as buffering and screening between incompatible uses, protection of natural resources, preservation of open space, provision of an evenly distributed system of parks and recreation opportunities, as well as the improvement of infrastructure to secure a safe living environment.
- The image and appearance of the City and Parish is recognized for its importance to tourism and visitation, economic attractiveness, community pride and the long-term sustainability of the built and natural environments.

Programmatic Initiatives

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
Land Use					
5.3	***Encourage preservation and sensitive utilization of natural areas, particularly floodplains, wetlands, the Red River and its tributaries.***				
5.3.7	Establish a program to acquire easements or development rights on Sensitive Development Areas and establish a trust to monitor the program.	MPC, CC, PJ	X		
Parks & Open Space					
6.1	***Promote the conservation of natural resources through parks and recreation land acquisition, open space preservation, and environmentally sensitive planning.***				
6.1.1	Identify and acquire environmentally sensitive areas and conservation sites to preserve as public open space or recreation areas.	MPC, CC, PJ	X		
6.1.10	Preserve the environmental quality of the Red River and its bayou tributaries as well as area lakes and water bodies by protecting valuable open space and habitats, improving drainage and water quality, and providing sensitive eco-recreational facilities.	CC, PJ	X		
6.1.2	Develop a "land-bank" program in which owners of properties in the flood plain are encouraged to deed their land to the "bank" to ensure long-term conservation.	CC, PJ	X		
6.1.3	Acquire conservation easements along the Red River, Willow Chute Bayou, Red Chute Bayou, Flat River and other bayou tributaries (Mack's Bayou, Cooper Bayou, Allison Bayou, Alligator Bayou, Fifi Bayou, Connell Bayou, Racetrack Bayou, St. Charles Bayou) and other sensitive lands to protect valuable resources from encroaching development.	CC, PJ		X	
6.1.4	***Provide development incentives, regulations and policies to encourage the preservation of open space by individuals, corporations, non-profits and public agencies to enhance the livability, aesthetic value and natural beauty of the City and Parish.***	***MPC, CC, PJ***	***X***		
6.1.5	Identify the boundaries of the regulatory floodways and consider acquisition through fee-simple or conservation easement methods prior to development, if possible.	MPC, CC, PJ		X	
6.1.7	***Create development incentives to encourage preservation and dedication of public parks, open space or conservation easements within subdivisions.***	***PR, MPC, CC, PJ***	***X***		
6.3	***Encourage the preservation of open space to reflect the unique resources of Bossier's natural environment and to enhance the community's livability, aesthetic quality, and natural beauty.***				
6.3.1	Establish development incentives to encourage dedication of open space easements adjacent to collector and arterial street rights-of-way, along bayous and other watercourses, and within major developments.	MPC, CC, PJ	X		
6.4	***Expand and enhance youth and recreation programs to meet the current and future needs of the City and Parish.***				
6.4.1	Coordinate with the Bossier Parish School Board to expand after school programs for youth to include a range of activities for all ages.	BPSB	X		
6.4.2	Coordinate with social service providers, civic clubs and other organizations to co-sponsor ongoing programs and special events.	MPC	X		
6.4.3	Advertise and promote youth and recreation programs to inform the public of ongoing and special programs and activities.	CC, PJ	X		
6.6	***Continue the parks and recreation area improvement program, including maintenance, renovation and/or redevelopment of existing and new public parks and facilities.***				
6.6.6	Establish a "Friends-of-the-Park" program to solicit neighborhood involvement in maintaining and policing the public parks.	CC, PJ	X		
Transportation					
7.3	***Promote pedestrian and bicycle pathways as a viable alternative to automobile traffic, particularly when tied to a public transportation system.***				
7.3.3	***Establish an ongoing pedestrian and bicycle system planning program to acquire easements and rights-of-way, through fee simple purchase or dedication, in conjunction with or preferably in advance of development.***	***MO, PR, PW, CC, PJ***	***X***		
7.3.4	Acquire conservation easements within the floodplain and along Willow Bayou, Flat River, Fifi Bayou, and the Red River as greenbelt corridors.	CC, PJ		X	

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
7.4	***Enhance the public transportation system to allow the combination of walking and public transportation to be considered a viable alternative to automobile use in the MPC Planning Area.***				
7.4.4	Expand SporTran shuttles used for the Independence Bowl for other area special events held at the CenturyTel Center.	SPORT		X	
7.4.5	Develop a park-and-ride program to provide ridesharing opportunities to and from communities in the Planning Area and other regional employment destinations.	SPORT		X	
Utilities & Infrastructure					
8.2	***Develop a comprehensive flood and storm water management program to eliminate or mitigate floodplain and localized flooding, storm water quality issues, and bank erosion within the master plan study area.***				
8.2.1	***Review, revise as necessary and implement the programs in the Draft Flood Hazard Mitigation Master Plan developed by AEGIS Innovation Solutions in conjunction with Bossier City and other local governmental authorities.***	***CC, PJ***	***X***	***X***	***X***
8.2.8	Public education on wetland mitigation and conservation issues should be developed in order to help protect and preserve existing wetlands. A regional wetland banking program might be considered to help development of areas where wetland preservation cannot be accomplished because of an important public need like flood reduction.	CC, PJ		X	
8.6	***Assure high quality, low maintenance utility infrastructure that is in regulatory compliance.***				
8.6.3	Compile and publish a list of approved manufacturers and models for valves, hydrants, post indicators, pipe fittings, pumps, treatment process equipment, hoists, controls, and other items requiring routine maintenance to use as a guide for the purchase of replacement parts project bid specifications.	CC, PJ	X		
8.7	***Improve efficiency and effectiveness of the Utilities Department in preparation for an expanded area of responsibility due to anticipated growth and development within the MPC area.***				
8.7.1	***Schedule and perform preventative equipment maintenance, check operation and document service records in accordance with manufacturer's recommended procedures and performance criteria. Strict adherence to these practices will serve to avoid premature repairs or replacement. Replace worn, inefficient equipment that has reached its expected service life.***	***PW, ENG, PHD, DOTD, CC, PJ***	***X***	***X***	***X***
8.7.2	Mandate applicable, specialized training, certification and continuing education for all department personnel. Cross train individuals and superintendents within the department to achieve manpower flexibility in the event of employee illness or attrition.	CC, PJ		X	
8.7.3	Maintain crew sizes, supervision, tools, etc. that are adequate to perform maintenance and repairs as necessary.	CC, PJ		X	
Housing					
9.1	***Ensure that a variety of housing options are available to new and current residents of Bossier that are affordable at all income levels.***				
9.1.1	Increase the presence of quality apartment units in Bossier City and the portion of Bossier Parish within the planning area.	MPC, CC, PJ			X
9.1.10	Develop a grant program for "self-help" rehabilitation of substandard housing utilizing private resources such as financial institutions and foundation funds. Upon resolution of lead based paint requirements, Community Development Block Grant funds should be used to supplement this program for Bossier City.	MPC, CC, PJ, BCD		X	
9.1.12	Establish an education and awareness program designed to inform persons with limited income about the various affordable housing options available throughout Bossier City.	MPC, BCD	X		
9.1.2	***Consider incorporating town homes, duplexes, modular housing and garden homes as part of various residential development projects to diversify the housing stock and inject added affordable units into the market.***	***MPC, CC, PJ***	***X***	***X***	***X***
9.1.3	Promote alternative site design to achieve affordable housing, including zero-lot line development, reduced setbacks, reduced street widths, reduced lot size, mixed use development, cluster housing, and increased density.	MPC, CC, PJ	X		

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
9.1.9	Coordinate with local financial institutions to establish a down payment and closing cost assistance program for those households in need. Upon resolution of lead based paint requirements, Community Development Block Grant funds should be incorporated into this program for Bossier City.	MPC, CC, PJ	X		
9.2	***Recognize manufactured housing and modular housing as viable and affordable housing options that are acceptable upon meeting requirements regarding appropriate location, appearance, function and quality.***				
9.2.10	Coordinate with local lenders and manufactured housing builders/retailers to develop a home "upgrade" option that allows for purchase/trade-in of new manufactured housing to replace an existing mobile home or otherwise substandard manufactured home.	MPC	X		
9.2.11	Coordinate with manufactured housing associations to create materials dispelling myths and perceptions regarding this housing option.	MPC	X		
9.2.3	Encourage development of manufactured housing communities as Planned Unit Developments with the option to encourage innovation in affordability and good site design that does not impede quality development.	MPC	X		
9.2.9	Develop a manufactured housing-to-standard program that offers incentives to community owners for improvement of existing communities including reduced rate financing, public provision of infrastructure and a streamlined approval process.	MPC	X		
9.3	***Maintain a high standard for existing neighborhoods, including ongoing maintenance, neighborhood revitalization, community leadership and development of amenities.***				
9.3.11	Establish programs that local organizations can assist with that will improve the quality of life in neighborhoods, such as Crime Watch, neighborhood clean-up, assistance with code enforcement, programs for seniors and youth, and maintenance of public spaces and recreation areas.	MPC & OTHER		X	
9.3.3	Consider the use of incentives to entice development to established neighborhoods, including tax deferral, fee waivers, and a variety of other methods.	MPC, CC, PJ	X		
9.3.4	Consider alternative uses for area vacant lots, such as creation of a neighborhood park or a neighborhood commercial establishment in strategically appropriate areas.	MPC, CC, PJ	X		
9.3.6	Assist in creation of various Community Development Corporations (CDCs) that, as nonprofit organizations, can implement neighborhood revitalization projects and programs. Consider the necessity of developing specialized CDCs such as a Community Housing Development Organization (CHDO) to best address housing issues.	MPC, CC, PJ, BCD	X		
9.4	***Maintain an attractive, quality housing stock that promotes Bossier as a community with pride.***				
9.4.4	Educate homeowners, apartment owners and other interested parties in the importance of home maintenance and its impact upon community quality of life, as well as property value.	MPC, CC, PJ	X		
9.5	***Promote sensible growth that takes advantage of proximity to services and amenities, minimizes the strain on tax revenue, and promotes interconnection.***				
9.5.2	Provide incentives to developers willing to develop adjacent to existing urban areas and to create points of interconnectivity, including streets, sidewalks, green spaces and paths.	MPC, CC, PJ	X		
9.6	***Create new residential development that offers the appearance, amenities, comfort and resources of a neighborhood or urban village.***				
9.6.8	Encourage gateways into the various residential areas and edges that are obvious, but do not inhibit interaction.	MPC, CC, PJ		X	
9.7	***Design rural subdivisions to respect the rural character of Bossier Parish yet meet future needs as the urban area grows.***				
9.7.3	***Provide incentives to encourage development contiguous with existing urban development in order to minimize disturbance of rural character and to maximize efficiency of existing services.***	***PW, ENG, PHD, MPC, CC, PJ***	***X***		
9.8	***Preserve flood prone areas and other natural resources to the extent practicable through use of alternative development techniques, and design residential areas to minimize flooding problems and create amenities.***				
9.8.1	Establish a land trust that can be charged with acquiring and managing sensitive lands throughout Bossier City and Bossier Parish with particular emphasis on rural and flood prone areas.	MPC, CC, PJ	X		

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
9.8.2	Encourage acquisition of development rights within the regulatory floodway and floodplain or the use of a nonprofit trust to preserve and enhance these sensitive areas of Bossier.	MPC, CC, PJ		X	
Community Image & Design					
10.1	***Give Bossier City and its significant component areas a character of good visual quality.***				
10.1.14	Promote neighborhood associations and watch programs to build a sense of resident belonging, assist residents to maintain an active role in the community and enforce an adopted public image.	MPC, CC	X		
10.1.15	Develop and stimulate market driven projects that ensure development in various districts is sustainable and continues to contribute to the community.	MPC, CC	X		
10.1.17	Create incentives for relocating professional and commercial offices to the downtown area.	MPC, CC, PJ		X	
10.2	***Define areas by certain activities and functions and establish ways to separate them from one another.***				
10.2.2	Offer economic incentives for renovations and improvements to grounds for existing businesses in at-risk areas that will stimulate growth and economic prosperity.	MPC, CC, PJ		X	
10.3	***Bring economic benefit and improved quality of life by unifying the visual characteristic of Bossier City.***				
10.3.2	***Develop landscape and tree planting programs in and around city neighborhoods to provide shade, sound absorption and pleasing visual appearance to the community.***	***CCC, NG, MPC, CC, PJ***	***X***		
10.3.4	Develop additional community projects that encourage participation in the outdoors.	MPC, CC	X		
Facilities & Education					
11.1	***Expand staffing and facilities as needed to maintain high standards for law enforcement functions in the MPC Planning Area.***				
11.1.11	***Develop opportunities/activities to enhance relations between youth and law enforcement.***	***CC, PJ***	***X***		
11.1.12	Consider pursuit of accreditation through the Commission on Accreditation for Law Enforcement Agencies.	CC, PJ	X		
11.1.4	Integrate Geographic Information System (GIS) applications to spatially record and analyze area crime statistics, and share data across agencies to address findings and better target resources.	CC, PJ		X	
11.1.5	Continue regular training of police personnel to meet all applicable state and national standards and certifications.	CC, PJ	X		
11.1.7	Take advantage of management and personnel training available through the National Emergency Training Center and the Federal Emergency Management Agency (FEMA).	CC, PJ	X		
11.1.9	Consider initiating an area residence on watch (AROW) program in apartment complexes.	CC, PJ	X		
11.2	***Provide for facility maintenance and development, staff enhancement and equipment acquisition needed to meet the long-term fire protection needs of the MPC Planning Area.***				
11.2.4	Continue and expand community programs such as CPR training, Fire Prevention Week activities, school programs, and fire extinguisher classes.	CC, PJ	X		
11.3	***Support expansion of the Bossier Parish Library System and its efforts in providing educational and informational services to residents within the MPC Planning Area.***				
11.3.3	Consider adjusting library hours as demands for services change.	BPL	X		
11.3.4	Seek opportunities to associate with agencies that have a significant public outreach/education component, such as the City Parks & Recreation Department or the Bossier Parish School Board, to implement coordinated activities related to the Red River and Bossier's extensive inventory of natural resources.	MPC, CC, PJ, BPSB	X		
11.3.6	***Continue to participate with the program that distributes library cards to second graders throughout the Parish.***	***BPL***	***X***		

Market Strategies

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
Market Assessment					
4.1	***Maintain Bossier's character while continuing to promote economic vitality.***				
4.1.1	Encourage both the private and public sector to acquire and reuse properties that have become functionally obsolete by virtue of their location, condition or value. These properties, which no longer function at their highest potential economic use and so depress the value and viability of surrounding uses, can then be used to create new development opportunities.	MPC, BCD,	X	X	X
4.1.2	Establish a process for communicating Bossier opportunities to developers and recruiting prospects.	Chamber, MPC, BCD		X	
4.1.3	Create a community identity program and accompanying marketing/communications program to heighten positive awareness of Bossier.	Chamber, Tourism	X		
4.1.4	Create a "Buy Bossier" program to help support local businesses.	Chamber, MPC, BCD		X	
4.1.5	Increase Bossier's entrepreneurial capacity by encouraging and assisting new small enterprises and helping employees become business owners, e.g., via micro loan programs, retail and business incubators, etc	BCD		X	X
4.2	***Create incentives for renovating homes in both private hands and under lease to Bossier residents and increasing homeownership.***				
4.2.1	Work with area lenders to provide mortgages and home equity loans to area residents, identify candidates for homeownership, and explain its financial benefits.	MPC, BCD, CC, PJ	X		
4.2.2	Expand the availability of existing programs that provide assistance with down payments, underwriting interest rates, weatherization, reducing utilities costs, etc.	MPC, BCD, CC, PJ	X		
4.2.3	Pursue designation of appropriate historic homes and any clusters that might qualify as a historic district. Publicize the availability of financial assistance programs, such as restoration tax credits, geared towards encouraging preservation-friendly renovation.	MPC, BCD, CC, PJ	X		
4.2.4	Create a landlord register program to facilitate communication	MPC, BCD, CC, PJ		X	
4.2.5	***Identify workable incentives to increase affordable housing development, e.g., density bonuses, permit discounts, etc.***	***MPC, BCD,CC,PJ***	***X***		
4.3	***Reestablish older neighborhoods through revitalizing the housing stock to establish a safe, functional and aesthetically pleasing community environment.***				
4.3.1	Help small neighborhoods form associations and identify appropriate projects to tackle, e.g., neighborhood clean-up days, converting vacant lots to parks and community gardens, etc.	MPC, BCD, Other			X
4.3.2	Direct resources to revitalizing small neighborhood-serving commercial districts.	MPC, BCD, Other			X
4.3.3	Expand resident volunteer neighborhood-watch programs.	MPC, BCD, Other			X
4.4	***Goal 4.4: Strengthen Bossier's viability as a destination within the region.***				
4.4.1	Expand special events and festivals while remaining sensitive to neighborhood needs.	MPC, CC, Tourism, Other			X
4.4.2	Work with casino management to make information available about Bossier to hotel guests.	MPC, CC, Tourism, Other		X	
4.4.3	Create public market for fresh produce, flowers and other home- and farm-made goods on Saturday mornings.	MPC, CC, Tourism, Other		X	
4.4.4	***Coordinate with the Louisiana Riverwalk project sponsors on how to market the region together.***	***MPC, CC, Tourism, Other***	***X***		

Regulations, Standards and Policies

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
Land Use					
5.1	***Promote efficient, long term growth within the MPC Planning Area and outside of sensitive development areas.***				
5.1.1	Restrict development within the AICUZ to low density development in accordance with the *Joint Land Use Study* recommendations, including the possibility of Conservation Subdivision Techniques that utilize areas outside of the AICUZ for the majority of home development and preserve land impacted by the AICUZ as open space.	MPC, CC, PJ, BAFB	X		
5.1.2	Encourage alternative uses for land within the AICUZ such as agricultural activity, natural areas and low intensity recreational opportunities.	MPC, CC, PJ, BAFB	X		
5.1.4	***Pursue changes to subdivision and zoning regulations that will permit mixed use, cluster development necessary to implement an urban village, including issues such as lot size, setback, lot coverage, parking requirements, sidewalks requirements, street layout, and block size.***	***MPC, CC, PJ***	***X***		
5.1.5	Consider altering requirements for subdivisions to include conceptual design, including landmarks, edges, nodes, paths and districts, as well as the relationship of the proposed development with the surrounding area.	MPC, CC, PJ	X		
5.2	***Achieve a balanced, diverse and dynamic pattern of land uses that preserves and enhances the character of Bossier.***				
5.2.3	***Use natural or created buffers as a means of avoiding conflict between two incompatible land uses, such as heavy industry and single family residential development.***	***MPC, CC, PJ***	***X***		
5.2.4	Review and update the MPC zoning map and ordinance periodically to discourage mixing of incompatible uses without remedy of all negative impacts.	MPC, CC, PJ	X		
5.2.5	Consider revisions to the zoning ordinance that encourage location of specific uses in areas such as an industrial district in the area of the Bossier Industrial Park or commercial office and retail activity in downtown.	MPC, CC, PJ	X		
5.2.6	Permit on site mix of uses that utilizes traditional land development patterns, such as home occupations and "granny flats" (accessory housing unit such as an above garage apartment) in residential areas, as well as first floor commercial and upper floor residential in a traditional commercial center or downtown area.	MPC, CC, PJ	X		
5.3	***Encourage preservation and sensitive utilization of natural areas, particularly floodplains, wetlands, the Red River and its tributaries.***				
5.3.3	Encourage the use of conservation subdivision techniques for neighborhood design within Sensitive Development Areas that will allow for preservation of significant open space while clustering housing units on optimal sites.	MPC, CC, PJ	X		
5.3.4	Promote establishment of conservation easements on open spaces within conservation subdivisions and other developments that set aside sensitive areas for preservation.	MPC, CC, PJ	X		
5.3.5	Consider incorporating agricultural areas into conservation subdivisions and permitting agricultural activity to continue on protected open spaces.	MPC, CC, PJ	X		
5.3.6	Allow for large lot subdivision development to occur in the Sensitive Development Area with restrictions on placement of homes, lot size and reduced number of permitted homes compared to conservation subdivisions.	MPC, CC, PJ	X		
5.4	***Utilize, revitalize and maintain the urban areas of Bossier in a manner that represents dynamic character and strengthens economic capacity.***				
5.4.8	Increase the dynamic character of existing areas through added flexibility in the ability to mix uses, densities and amenities.	MPC, CC, PJ	X		
5.5	***Develop new areas with an appreciation for sensitive environments, long term quality of life, economic efficiency, and community character.***				
5.5.1	***Explore the use of concurrency requirements to establish the limits of development, including adequate provision of water, wastewater, storm water management, and streets, as well as other possibilities such as police, fire, emergency medicine, schools, libraries and parks.***	***MPC, CC, PJ***	***X***		
5.5.4	Promote densities adequate to support commercial retail, service and potentially office. Density may vary with the greatest intensity of activity occurring nearest to the commercial center.	MPC, CC, PJ	X		

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
5.5.6	Incorporate pedestrian scale development requirements into ordinances to allow for reduced setbacks and increased density, with offsetting green space requirements.	MPC, CC, PJ	X		
5.5.7	Utilize development guidelines, standards and incentives as means of maintaining quality design and preservation of local character.	MPC, CC, PJ	X		
5.5.9	Consider coordinating with State Legislature to expand the boundaries of the MPC Planning Area.	MPC, CC, PJ		X	
Parks & Open Space					
6.1	***Promote the conservation of natural resources through parks and recreation land acquisition, open space preservation, and environmentally sensitive planning.***				
6.1.8	Amend the City and Parish Subdivision Regulations to encourage the use of conservation subdivision techniques, which allow flexibility in lot size, setbacks and other area standards to increase open space, preservation of natural areas, and set-asides for wetlands and other sensitive habitat areas.	MPC, CC, PJ	X		
6.1.9	Protect the waterfront landscape from encroaching, harmful development while preserving the integrity of the natural environment with natural shorelines and sensitive parks and recreation development and conservation.	MPC, CC, PJ, RRWC, CORP	X		
6.2	***Provide a diverse blend of parks, recreation and open space areas throughout the City and the MPC planning area.***				
6.2.8	***Establish a park dedication ordinance, an exaction of land or cash, or impose a parks and recreation impact fee to ensure adequate parks and open space concurrent with development within the City and Parish.***	***PR, MPC, CC, PJ***	***X***		
6.2.9	Establish provisions to allow reductions in park acreage in exchange for golf courses and other development amenities that are available and accessible to the general public.	MPC, CC, PJ	X		
6.3	***Encourage the preservation of open space to reflect the unique resources of Bossier's natural environment and to enhance the community's livability, aesthetic quality, and natural beauty.***				
6.3.2	Consider the use of a density bonus program that rewards increased density for greater open space, increased setbacks, preservation of natural areas, provision of natural amenities and set-asides for wetlands and other sensitive habitats.	MPC, CC, PJ	X		
6.5	***Promote water activities and programs such that all persons have equal access and opportunity to enjoy the recreational value of local water resources.***				
6.5.4	Amend the subdivision regulations of the City and Parish to incorporate provisions for cross access and public right-of-way connections from neighborhoods to the river, bayous and other natural resource areas.	MPC, CC, PJ	X		
6.7	***Develop an on- and off-street network of pedestrian and bicycle ways throughout the MPC planning area.***				
6.7.5	Establish policies and regulations regarding the use and development of floodways and drainage ways, abandoned railroad corridors, vacated alleys, and other rights-of-way and easements.	MPC, CC, PJ	X		
6.7.7	Establish incentives and standards for developments adjacent to the Red River and other bayous and waterways to dedicate recreation easement for public use.	MPC, CC, PJ	X		
6.8	***Establish cooperative agreements and coordinated efforts with other governmental jurisdictions, educational bodies, and private sector entities.***				
6.8.6	***Encourage private sector participation in the provision of parks and recreation opportunities by permitting innovative land development practices and creating incentives that will result in an efficient utilization of land and provide greater opportunities for the enjoyment of open space and preservation of the natural environment.***	***PR, MPC, CC, PJ***	***X***		
6.9	***Identify dedicated funding sources for the acquisition, development, operation and maintenance of parks and recreation areas, facilities, programs and activities.***				

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
6.9.5	Consider establishing a recreation district, which has the authority to levy a tax to generate revenue toward the development and improvement of areas and facilities.	CC, PJ	X		
Transportation					
7.1	***Improve mobility by key thoroughfare improvements, new construction and enhancing the existing street infrastructure.***				
7.1.17	Limit the construction of dead-end streets or cul-de-sacs that prevent interconnection of the street system.	MPC, CC, PJ	X		
7.3	***Promote pedestrian and bicycle pathways as a viable alternative to automobile traffic, particularly when tied to a public transportation system.***				
7.3.9	Maintain block lengths of less than 500 feet or require incorporation of mid-block pedestrian pathways.	MPC, CC, PJ	X		
7.4	***Enhance the public transportation system to allow the combination of walking and public transportation to be considered a viable alternative to automobile use in the MPC Planning Area.***				
7.4.7	Coordinate with local leaders to amend all ordinances and legislation that restrict development of a single public transportation service provider for the entire MPC Planning Area.	CC, PJ, CoS, SPORT		X	
7.6	***Manage access to land uses from the transportation system in order to reduce or minimize the risk of accidents and increase travel efficiency.***				
7.6.1	Implement standards to manage access, including the number of driveways, their location, spacing; street intersections and connections; medians and median breaks; marginal access roads; traffic signal location and timing; turn lanes and acceleration/deceleration lanes; and, pedestrian and bicycle facilities.	MPC, CC, PJ	X		
7.6.2	***Adopt/reinforce a driveway ordinance to include guidelines regarding the design, construction, location, width, spacing, radius, offset and coordination of driveways on principal and minor arterials and collector roadways.***	***PW, ENG, PHD DOTD, MPC, CC, PJ***	***X***		
7.6.3	***Acquire additional right-of-way as needed to address areas of congestion caused by the lack of access management and develop turn lanes and acceleration/deceleration lanes as appropriate.***	***PW, ENG, PHD, DOTD, CC, PJ***	***X***	***X***	
Utilities & Infrastructure					
8.6	***Assure high quality, low maintenance utility infrastructure that is in regulatory compliance.***				
8.6.1	***Adopt a uniform building code and establish uniform standards and details that govern design, materials and methods for new construction and rehabilitation projects as well as for in-house maintenance and repair tasks.***	***ENG, MPC, CC, PJ***	***X***		
8.6.4	Modify city ordinances to establish rules for pre-treatment, monitoring and control of commercial and industrial discharges into the sewer collection system.	CC, PJ	X		
Housing					
9.2	***Recognize manufactured housing and modular housing as viable and affordable housing options that are acceptable upon meeting requirements regarding appropriate location, appearance, function and quality.***				
9.2.1	Require manufactured housing considered for placement in residential areas to meet design requirements standard for infill development regarding roof pitch, exterior materials, setbacks, proportion of structure (length, width and height), composition and location of front entry, site standards and other variables as a means of providing continuity in the neighborhood.	MPC, CC, PJ	X		
9.2.2	Develop site design standards for manufactured housing communities that are similar in nature to subdivision requirements, including street and sidewalk requirements, setbacks, "lot" configuration, minimum yards, landscaping, parking, and other variables.	MPC, CC, PJ	X		
9.2.4	Require amenities for manufactured housing communities similar to those required of standard subdivisions, including parks, recreation areas, open spaces, and trails/sidewalks, community centers, and possibly schools, fire service and other variables.	MPC, CC, PJ	X		
9.2.5	Encourage development of additional affordable housing options to provide alternatives outside of manufactured housing.	MPC, CC, PJ	X		
9.2.6	Promote modular housing as a quality option that is more cost effective than Single Family Detached development, but does not necessarily suffer quality.	MPC, CC, PJ	X		

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
9.2.7	Discourage aggregation and placement of all manufactured housing communities in a few limited locations.	MPC, CC, PJ	X		
9.2.8	Permit development of manufactured housing communities throughout the Bossier planning area through development of specific zones or by PUD, if community requirements are met.	MPC, CC, PJ	X		
9.3	***Maintain a high standard for existing neighborhoods, including ongoing maintenance, neighborhood revitalization, community leadership and development of amenities.***				
9.3.1	***Examine and revise local health and building codes, as needed, to ensure that a streamlined process is in place to address unsafe or dilapidated structures and other potential health and safety risks, such as weeds, tires and heavy trash.***	***CC, PJ***	***X***		
9.3.12	Examine code enforcement processes and regulations to ensure that enforcement is fair, expedient and utilized.	CC, PJ	X		
9.3.9	Enhance zoning, subdivision and/or building regulations to respond to the special site design needs of infill housing and rehabilitation.	MPC, CC, PJ	X		
9.4	***Maintain an attractive, quality housing stock that promotes Bossier as a community with pride.***				
9.4.1	Promote quality, infill housing that compliments the character of the surrounding neighborhood by working with local architects to provide context-related designs to be utilized by builders as well as nonprofit organizations such as Habitat for Humanity for construction and rehabilitation.	MPC, CC, PJ	X		
9.4.2	Establish design guidelines that address issues such as materials, roof pitch, façade treatment, porches (if applicable), proportional dimensions, garage, and other elements necessary to ensure that new development and rehabilitation is consistent with the character of the area.	MPC, CC, PJ	X		
9.5	***Promote sensible growth that takes advantage of proximity to services and amenities, minimizes the strain on tax revenue, and promotes interconnection.***				
9.5.1	Avoid separation of residential areas through gated developments. Adjacent residential developments should be adequately linked with transportation arteries and pedestrian connections to encourage interaction and neighborhood mobility.	MPC, CC, PJ	X		
9.6	***Create new residential development that offers the appearance, amenities, comfort and resources of a neighborhood or urban village.***				
9.6.1	Strategically mix uses, including limited neighborhood commercial development as well as major focal points such as schools, churches, parks, open spaces, day care, post office, emergency service, and allow for each to be interconnected by pedestrian friendly corridors.	MPC, CC, PJ	X		
9.6.10	***Residential areas should be appropriately buffered and screened from primary streets and adjacent commercial, office and community facility uses. Residential areas should not be next to industrial areas.***	***MPC, CC, PJ***	***X***		
9.6.11	Neighborhood retail and service uses should be located at intersections of arterial or collector streets or at the edge of logical neighborhood areas unless appropriately placed within a planned development.	MPC, CC, PJ	X		
9.6.2	Consider increasing residential density, particularly in parts of the neighborhood that are near gathering points (e.g. neighborhood commercial activity centers, major parks and schools) and near primary entry points into the area.	MPC, CC, PJ	X		
9.6.3	Consider increasing residential density as a means to preserve unique physical or cultural characteristics of an area, create green space, improve infrastructure efficiency, and increase housing affordability.	MPC, CC, PJ	X		
9.6.4	Utilize planned unit development provisions to encourage innovative and imaginative site design that minimizes adverse impacts on adjacent properties.	MPC, CC, PJ	X		
9.6.5	Permit secondary dwellings with appropriate restrictions such as above-garage apartments and "granny flats" in all residential zoning districts by right to improve diversity, affordability and efficiency of area neighborhoods.	MPC, CC, PJ	X		
9.6.6	Consider the pedestrian experience at the same level or higher than that provided to automobile traffic.	MPC, CC, PJ	X		
9.6.9	Require parks, schools, churches, neighborhood centers, or other options as means of creating a community focal point. Consider appropriate zoning for these public and institutional uses.	MPC, CC, PJ	X		

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
9.7	***Design rural subdivisions to respect the rural character of Bossier Parish yet meet future needs as the urban area grows.***				
9.7.1	Discourage "strip" residential development to promote quality design and maintain rural character.	MPC, CC, PJ	X		
9.7.2	Encourage rural development to include open space to maintain and enhance the theme of rural character.	MPC, CC, PJ	X		
9.7.4	Minimize the amount of space required for rural development by utilizing village or cluster site design.	MPC, CC, PJ	X		
9.8	***Preserve flood prone areas and other natural resources to the extent practicable through use of alternative development techniques, and design residential areas to minimize flooding problems and create amenities.***				
9.8.3	Create an option to utilize cluster residential development as a means of reducing lot size, increasing open space and preserving flood prone areas.	MPC, CC, PJ	X		
9.8.5	Determine criteria for secondary conservation areas, conservation easements and concept plan approval.	MPC, CC, PJ	X		
9.8.6	Revise ordinances as needed to allow for uncommon lot design in appropriate circumstances, including "flag" lots.	MPC, CC, PJ	X		
Community Image & Design					
10.1	***Give Bossier City and its significant component areas a character of good visual quality.***				
10.1.2	***Provide signage requirements for businesses, including standardized size requirements and height restrictions.***	***MPC, CC, PJ***	***X***		
10.1.3	***Ensure that signage and lighting standards limit visual distractions, set aesthetic values, and help to develop the character of districts such as downtown.***	***MPC, CC, PJ***	***X***		
10.1.4	Establish or enforce building standards, rules and guidelines, which reflect the wanted character of the area while still allowing businesses to establish their uniqueness within the boundaries of the code.	MPC, CC, PJ	X		
10.1.5	Establish standards of design that encourage creative freedom for individual businesses while ensuring quality development within districts and neighborhoods.	MPC, CC, PJ	X		
10.1.6	Create signage standards and unified way finding to aid visitors and citizens in moving around the district.	MPC, CC, PJ	X		
10.1.7	Establish individualized theme or design criteria for special districts such as the Arena District and Downtown to allow each the ability to be seen as unique.	MPC, CC, PJ	X		
10.1.11	Provide guidelines for new businesses to design their own gateways and bring another design element into the community to reinforce the image of the city.	MPC, CC, PJ	X		
10.1.13	Continue to enforce development standards for paving, walks, curbs, and landscape; establish new standards for mature neighborhoods; and allow pedestrian traffic to move about unimpeded and in a safe environment.	MPC, CC, PJ	X		
10.1.18	Introduce limited residential development into the downtown area to add a dynamic afternoon and evening character to the area.	MPC, CC, PJ		X	
10.1.19	Provide public amenities that will encourage activity and promote downtown and other dynamic districts as places to spend time and money.	MPC, CC, PJ			X
10.1.25	Protect the natural surroundings surrounding the Arthur Teague Parkway.	MPC, CC, PJ	X		
10.2	***Define areas by certain activities and functions and establish ways to separate them from one another.***				
10.2.4	Place buffer yards between adjacent, unrelated activities.	MPC, CC, PJ	X		
10.3	***Bring economic benefit and improved quality of life by unifying the visual characteristic of Bossier City.***				
10.3.7	Standardize lighting with common design elements to add to the sense of identity and help to create a unique character for the community.	MPC, CC, PJ	X		
10.3.8	Improve signage and way finding requirements to better guide visitors and residents, allow for easy recognition of signage and landmarks, and improve the public landscape.	MPC, CC, PJ	X		
10.3.9	Unify size and placement of sidewalks and curbs by adding color, texture, and patterns that can make these areas more appealing and safer.	MPC, CC, PJ	X		

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
Facilities & Education					
11.1	***Expand staffing and facilities as needed to maintain high standards for law enforcement functions in the MPC Planning Area.***				
11.1.14	***Develop community benchmarks and program performance measures to evaluate police protection effectiveness. Such performance measures might include response time to calls, crime solution rates or other methods to determine actual effectiveness.***	***CC, PJ***	***X***		
11.1.15	Require development of comprehensive emergency management plans consistent with this Master Plan.	CC, PJ	X		
11.2	***Provide for facility maintenance and development, staff enhancement and equipment acquisition needed to meet the long-term fire protection needs of the MPC Planning Area.***				
11.2.5	Focus urban growth in areas served by a fire protection district or within the Bossier City corporate limits.	CC, PJ	X		
11.2.7	Encourage development of community benchmarks and program performance measures to monitor outcomes from public safety efforts.	CC, PJ	X		
11.2.8	Prepare comprehensive emergency management plans consistent with this Master Plan.	CC, PJ	X		
11.3	***Support expansion of the Bossier Parish Library System and its efforts in providing educational and informational services to residents within the MPC Planning Area.***				
11.3.10	***Ensure that the expansion of library capacity proceeds at a comparable rate with that of residential development and demographic trends.***	***BPL, PJ***	***X***		
11.3.11	Ensure that land use regulations allow siting of library facilities in locations convenient and accessible to residential areas.	MPC, CC, PJ	X		
11.4	***Develop and implement a long-range facilities plan for municipal operations to address future space needs and ensure access to all residents.***				
11.4.5	Provide public facilities and services – or accept their provision by other entities – only if Bossier City/Parish or the other entity is able to pay for subsequent operation and maintenance costs.	MPC, CC, PJ	X		
11.5	***Support the Bossier Parish School Board and other education institutions in providing quality education opportunities, including school facilities that are adequate to handle fluctuating enrollment projections.***				
11.5.10	Adopt a set of facility use standards and annually use the standards to assess the efficiency of school facility utilization and to plan new schools.	BPSB, BPCC, CC, PJ	X		
11.5.11	Establish a policy on the use of temporary facilities that recognizes the negative effects on the educational program from overuse of common school facilities and resources.	BPSP, CC, PJ	X		
11.5.13	Adopt a land acquisition process that includes increased opportunities for public input and coordination with future land use, transportation and utilities plans.	BPSB, BPCC, CC, PJ	X		
11.5.5	Ensure that land use policies protect and allow for the establishment of new schools in urban areas.	MPC, CC, PJ	X		
11.5.6	Ensure that expansion of school facility capacity proceeds at a comparable rate with that of residential development and demographic trends.	BPSB, MPC, CC, PJ	X		
11.5.7	Consider the adequacy of area school facilities when reviewing proposed new residential development.	BPSB, MPC, CC, PJ	X		

Capital Improvements

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
Land Use					
5.3	***Encourage preservation and sensitive utilization of natural areas, particularly floodplains, wetlands, the Red River and its tributaries.***				
5.3.2	Link public, and possibly private, park facilities together utilizing a pedestrian trail system comprised of natural areas.	CC, PJ		X	
5.5	***Develop new areas with an appreciation for sensitive environments, long term quality of life, economic efficiency, and community character.***				
5.5.5	***Place green space liberally throughout new development as a means of preserving the small town character of the area, providing pedestrian linkages throughout the development, and adding recreation opportunities.***	***MPC, CC, PJ***	***X***		
Parks & Open Space					
6.2	***Provide a diverse blend of parks, recreation and open space areas throughout the City and the MPC planning area.***				
6.2.1	Develop an even distribution of parks and recreation facilities throughout the planning areas that will provide equitable opportunities and convenient access for all citizens.	CC, PJ			X
6.2.2	Acquire and develop 58 acres of neighborhood and community parks within the identified deficiency areas of Bossier City to meet the current parks and recreation system demand.	CC, PJ			X
6.2.3	To meet the current demand for parks and open space within the five-mile planning area, acquire and develop 166 acres of land in the developed and developing areas of the MPC area.	CC, PJ			X
6.2.4	To meet the projected future demands within the City and Parish, based upon a projected population of 96,000 persons, acquire and develop concurrent with development 118 and 223 acres, respectively.	CC, PJ			X
6.2.6	***Acquire lands within future growth areas for parks and recreation facilities, public open space and conservation areas in advance of ensuing development.***	***PR, CC, PJ***	***X***	***X***	***X***
6.2.7	Acquire excess rights-of-way, vacated alleys and easements, areas beneath overhead power lines, irregularly-shaped parcels and other non-developable parcels for utilization as play lots and public open space.	CC, PJ		X	
6.3	***Encourage the preservation of open space to reflect the unique resources of Bossier's natural environment and to enhance the community's livability, aesthetic quality, and natural beauty.***				
6.3.3	Incorporate open space into the entrances to the City and unique areas within the Parish, as well as acquiring land for open space along major transportation corridors to visually enhance those corridors and promote regional recognition.	CC, PJ		X	
6.3.4	Increase public open space in flood prone areas through acquisition, relocation and demolition of flood damaged and repetitive loss structures.	CC, PJ		X	
6.4	***Expand and enhance youth and recreation programs to meet the current and future needs of the City and Parish.***				
6.4.4	Provide adequate resources for youth programs to support organization and coordination efforts.	CC, PJ	X		
6.5	***Promote water activities and programs such that all persons have equal access and opportunity to enjoy the recreational value of local water resources.***				
6.5.1	***Coordinate with the Red River Waterway Commission to further enhance and expand the Ray Arthur Teague Greenway south to the CenturyTel Arena and north to the Riverwalk development. Continue the greenway along the river throughout the planning area and parish.***	***MPC, CC, PJ***			***X***
6.5.2	Provide public access to local bayous and waterways such as the Red Chute Bayou and Willow Chute Bayou.	MPC, CC, PJ			X
6.5.3	Continue to improve public access to the Red River with recreation easements, boat ramps, fishing docks and public activity areas.	MPC, CC, PJ, RRWC		X	

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
6.6	***Continue the parks and recreation area improvement program, including maintenance, renovation and/or redevelopment of existing and new public parks and facilities.***				
6.6.5	Provide adequate funding and resources to perform necessary maintenance and repairs and to construct needed improvements at existing and future parks and recreation facilities.	CC, PJ		X	
6.7	***Develop an on- and off-street network of pedestrian and bicycle ways throughout the MPC planning area.***				
6.7.3	Utilize rights-of-way, easements, natural drainage courses, the Red River and its bayou tributaries for nature trails to link the City's parks and recreation areas.	CC, PJ		X	
6.7.4	Extend the nature trail within the Arthur Ray Teague Greenway to connect to downtown and other neighborhoods and activity areas such as the CenturyTel Arena and the planned Riverwalk development.	CC, PJ, RRWC		X	
6.7.9	Develop a tourist trail connecting monuments, museums and landmarks that are of historic or cultural significance to the City and Parish.	MPC, CC, PJ			X
Transportation					
7.1	***Improve mobility by key thoroughfare improvements, new construction and enhancing the existing street infrastructure.***				
7.1.10	Extend Shed Road to Bellevue Road in the Red Chute area.	CC, PJ			X
7.1.11	Improve Adner Road to minor arterial street standards and establish a new north/south minor arterial street between Winnfield Road and U.S. 79/80 linked to the eastern terminus of Adner Road.	CC, PJ			X
7.1.12	Extend Greenacres Drive easterly as a collector to Swan Lake Road.	CC, PJ			X
7.1.13	Extend Wemple Drive westerly to Benton Road and easterly to Swan Lake Road.	CC, PJ			X
7.1.14	***Begin to acquire additional right-of-way, where available, to improve collector and arterial classified roadways.***	***CC, PJ***	***X***		
7.1.19	Extend Viking Road north under IH 220 to tie into Airline Drive.	CC, PJ			X
7.1.3	***Expand Arthur Teague Parkway north through to Traffic Street and south to ultimately connect with Curtis Sligo Road.***	***CC, PJ***			***X***
7.1.4	Enhance and extend Winnfield Road to connect with Airline Drive.	CC, PJ			X
7.1.5	Improve and extend Caplis-Sligo Road to connect Curtis-Sligo Road to Hill Road (LA 527).	CC, PJ			X
7.1.6	Enhance Wafer Road and extend south of U.S. 79/80 to tie into I-20.	CC, PJ			X
7.1.7	Enhance access to and circulation in the vicinity of the CenturyTel Center by extending Teague Parkway to link with new collector routes including the extension of Sunflower Boulevard, Golden Meadow Drive, and Hope Street, ultimately connecting to Curtis-Sligo Road.	CC, PJ			X
7.1.8	For additional connectivity and mobility, extend Sunflower Boulevard as a minor arterial south and east to Barksdale Boulevard.	CC, PJ			X
7.1.9	Enhance Industrial Drive as it connects with Bodcau Station Road and an interchange at I-20.	CC, PJ			X
7.2	***Mitigate railroad grade crossing conflicts to reduce interference with other modes of transportation.***				
7.2.1	Implement the grade separation project on Benton Road at the KCS rail line.	CC, PJ			X
7.2.2	Consider implementation of grade separations on Airline Drive (S of IH-20) at the KCS rail line as well as on East Texas at the UP rail line to eliminate vehicle/train conflicts.	CC, PJ			X
7.3	***Promote pedestrian and bicycle pathways as a viable alternative to automobile traffic, particularly when tied to a public transportation system.***				
7.3.10	Utilize pedestrian paths to create interconnections between parks, schools, neighborhoods and other sites of interest.	CC, PJ			X
7.3.11	Provide street furniture and vegetation to complement the pedestrian experience.	CC, PJ			X
7.3.7	Allocate capital improvement funds on an annual basis to construct pedestrian walkways, sidewalks, crosswalks, handicap accessible ramps and curb cuts in areas with significant pedestrian traffic, such as North Bossier, along major transportation arteries such as Airline Drive, Benton Road and Barksdale Boulevard, around elementary and middle schools, public parks, and public buildings.	CC, PJ			X

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
7.4	***Enhance the public transportation system to allow the combination of walking and public transportation to be considered a viable alternative to automobile use in the MPC Planning Area.***				
7.4.2	Coordinate with Bossier City to gain approval necessary to expand public transportation service in and around Bossier.	SPORT	X		
7.4.6	Create bus stops and stations to reflect a public transportation system that serves as a viable alternative transportation source to automobile traffic.	SPORT	X		
Utilities & Infrastructure					
8.1	***Provide safe, reliable utility services to adequately meet present and future residential, commercial and industrial demands.***				
8.1.1	Provide increased security measures to safeguard against vandalism or terrorism of water source facilities at both the Reservoir Pumping Station and the Red River Pumping Station. Add pumping units and discharge header piping as necessary at both existing pumping stations to assure an adequate supply to the treatment plant from either location.	CC, PJ		X	
8.1.10	Install a new water line from the water treatment plan (WTP) north on Benton Road to the new two MG elevated storage tank and Airline Drive.	CC, PJ			X
8.1.11	Install a new transmission line from the WTP south on Hamilton Road to Old Minden Road.	CC, PJ		X	
8.1.12	***Modify the collection system as necessary to increase carrying capacity and scouring velocities, reduce odor causing potential, and improve flow efficiency while simultaneously reducing operating and maintenance costs.***	***CC, PJ***	***X***	***X***	***X***
8.1.13	Add a SCADA system to provide system control, monitoring and data acquisition capabilities for treatment plant systems.	CC, PJ			X
8.1.14	Add sludge thickener to the waste disposal process at the wastewater treatment plants to increase capacity for solids removal rate from aeration basins.	CC, PJ	X		
8.1.15	Add hoisting equipment at wastewater treatment plants to facilitate pumps replacement at the Northeast WWTP Return Sludge Pump Station.	CC, PJ		X	
8.1.2	Install new water lines to complete loops and connect water sub-systems at Shady Grove/Southgate Loop, Sun City/Golden Meadows Loop and Southern Gardens/Southgate Loop.	CC, PJ			X
8.1.3	Expand existing water treatment facilities by adding 10 million gallons/day (MGD) capacity to the existing 25 MGD plant.	CC, PJ			X
8.1.4	Acquire property, design and construct a new two million gallon (MG) elevated water storage tank on Kingston Road between Benton Road and Airline Drive in North Bossier.	CC, PJ			X
8.1.5	Complete a water system loop from Hospital Drive to Prestwick Circle in Greenacres Place Subdivision.	CC, PJ			X
8.1.6	Complete a water system loop by installing new water lines to connect the east and west ends of Viking Drive.	CC, PJ			X
8.1.7	Complete a water system loop on Village Lane to connect with the water line on Airline Drive.	CC, PJ			X
8.1.8	Complete a water system loop in River Bend Subdivision.	CC, PJ			X
8.1.9	Install a new transmission line down the Arthur Ray Teague Parkway from Old Minden Road to the Highway 71 South 2 MG elevated storage tank.	CC, PJ		X	
8.2	***Develop a comprehensive flood and storm water management program to eliminate or mitigate floodplain and localized flooding, storm water quality issues, and bank erosion within the master plan study area.***				
8.2.4	Implement the drainage system improvements identified in the River Bend Drainage Analysis report developed by Owen and White in June, 2001, to alleviate localized flooding problems in the River Bend subdivision.	CC, PJ			X

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
8.3	***Provide environmentally sensitive, high quality service level utility systems to adequately support future land use and development planning.***				
8.3.1	Install new water and sanitary sewer systems along the proposed extension of Winfield Road from Stockwell Road to Swan Lake Road; from the Swan Lake Road intersection with Airline Drive east to Benton Road; along the proposed extension of Winfield Road from Swan Lake Road to Airline Drive; along the proposed extension of Wimple Road to Swan Lake Road; along proposed extension of Wimple Road from Airline Drive to Benton Road; along the Greenacres Drive extension from Airline Drive to Swan Lake Road; along the proposed extension of Sunflower Boulevard south and east to Barksdale Boulevard; along the proposed extension of Golden Meadows Drive west of Barksdale Boulevard and connecting to Sunflower Boulevard extension; along the proposed extension of Hope Street from Barksdale Boulevard west to connection with the Sunflower Boulevard extension; and, along Vanceville Lisbon and Bobby Byrd Roads from Benton Road to Airline Drive.	CC, PJ			X
8.3.2	Relocate water system lines to accommodate widening Barksdale Boulevard to a five-lane cross section.	CC, PJ			X
8.3.3	Extend the existing water line and sanitary sewer system along Swan Lake Road north and west to Airline Drive.	CC, PJ			X
8.3.4	Install a new water line from Swan Lake Road to connect the northeastern end of the Lakewood Subdivision water system.	CC, PJ			X
8.3.5	Install a new water line from Stonebridge to Swan Lake Road.	CC, PJ			X
8.4	***Revitalize all aging and failing utilities infrastructure.***				
8.4.1	Sandblast, apply protective coating systems, repair welds and rehabilitate serviceable water and wastewater treatment plant equipment and lift stations.	CC, PJ		X	
8.4.2	Replace water mains along Shed Road from Airline to Benton Road, on East Texas from Benton Road to Eatman Street, and on Benton Road from Kingston to Wemple Roads.	CC, PJ			X
8.4.3	Replace the water system in Coleman Park subdivision from Patricia to Murphy Street.	CC, PJ			X
8.4.4	Replace all cast iron piping with new polyvinyl chloride (PVC) or high density polyethylene (HDPE) piping systems.	CC, PJ			X
8.4.5	Replace all 2-inch diameter water mains with 4-inch minimum diameter PVC or HDPE piping as recommended by the American Water Works Association (AWWA).	CC, PJ			X
8.4.6	Replace severely corroded handrails at the Northeast WWTP.	CC, PJ	X		
8.5	***Enhance existing utilities for maximum operating and maintenance efficiency.***				
8.5.1	Add sectional valves in the water distribution system every 400-600 feet and at critical points within the existing system.	CC, PJ			X
8.5.2	Obtain additional easements, pave access roads, add security fences/gates and access hatches/ladders, where necessary, at city owned facilities such as sewer lift stations and raw water pumping stations.	CC, PJ		X	
8.5.3	Add a SCADA system to provide monitoring and control for lift stations.	CC, PJ			X
Housing					
9.3	***Maintain a high standard for existing neighborhoods, including ongoing maintenance, neighborhood revitalization, community leadership and development of amenities.***				
9.3.14	Incorporate sidewalks into all urban neighborhoods and repair those that impede pedestrian access.	CC, PJ	X		
9.3.15	When possible, utilize natural areas, such as flood prone areas, abandoned railways or other means to establish a system of trails, streets and sidewalks that prevent neighborhoods from becoming isolated.	CC, PJ		X	
9.6	***Create new residential development that offers the appearance, amenities, comfort and resources of a neighborhood or urban village.***				
9.6.7	Incorporate bus service into each neighborhood as a resource for travel between major destinations throughout the Bossier planning area.	SPORT	X		

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
Community Image & Design					
10.1	***Give Bossier City and its significant component areas a character of good visual quality.***				
10.1.1	Identify established commercial districts with design elements (such as banners, flags, monuments, public art, and unified lighting), signage, and boundaries.	MPC, CC, PJ	X		
10.1.9	Install special lighting elements at major gateways and in other public areas to aid in creating a sense of character for arrival into the community or a special district.	MPC, CC, PJ		X	
10.1.16	Establish infrastructure support, including technology and utility upgrades, which will help businesses to compete in today's market.	MPC, CC, PJ		X	
10.1.20	Incorporate public art into the visual landscape that can capture public interest and add character to the individual districts.	MPC, CC, PJ			X
10.1.23	Improve all access points to the Arthur Teague Parkway and connect various parts of the city to the corridor and the surrounding, very active park.	MPC, CC, PJ			X
10.1.24	Increase outdoor amenities, including additional jogging and bike paths, along the Arthur Teague Parkway.	MPC, CC, PJ			X
10.2	***Define areas by certain activities and functions and establish ways to separate them from one another.***				
10.2.1	Condemn and demolish dilapidated or neglected properties that detract from the appearance of the MPC Planning Area and can deter new businesses from moving into the community.	MPC, CC, PJ		X	
10.2.7	Replace above ground utilities with an underground system to permit a safer environment for vehicular traffic and reduce maintenance costs.	MPC, CC, PJ			X
10.3	***Bring economic benefit and improved quality of life by unifying the visual characteristic of Bossier City.***				
10.3.1	Landscape public right of ways, including the introduction of street trees and seasonal plantings in a way that is reminiscent of small town character, complements the surrounding natural setting, helps to shield unneeded noise levels and reduce visual clutter.	MPC, CC, PJ	X		
10.3.3	Establish and maintain community parks, playgrounds and open spaces that encourage community recreation and provide a place for the whole community to come together and play.	MPC, CC, PJ	X		
10.3.10	Provide sufficient pedestrian amenities, including benches, litter receptacles, kiosks and shade structures, to encourage individuals to take a slower pace and have a look around.	MPC, CC, PJ	X		
10.3.11	Invest in additional lighting and security utilities, such as call boxes, that will give the sense of safety to citizens and visitors.	MPC, CC, PJ	X		
Facilities & Education					
11.1	***Expand staffing and facilities as needed to maintain high standards for law enforcement functions in the MPC Planning Area.***				
11.1.3	Support regular software and equipment upgrades to ensure that personnel have access to state-of-the-art technology.	CC, PJ		X	
11.1.6	Hire a full-time Training Officer and implement a citizen police academy program.	CC, PJ	X		
11.2	***Provide for facility maintenance and development, staff enhancement and equipment acquisition needed to meet the long-term fire protection needs of the MPC Planning Area.***				
11.2.3	Support regular technology and equipment upgrades to keep pace with technical innovations as well as to serve a growing area effectively.	CC, PJ	X		
11.3	***Support expansion of the Bossier Parish Library System and its efforts in providing educational and informational services to residents within the MPC Planning Area.***				
11.3.2	Continue to provide sufficient staffing and budget resources to enable the library system to meet Louisiana Library Association standards.	CC, PJ	X		
11.3.5	Implement facility expansion plans identified in the *Bossier Central Library Master Plan - 2001*.	CC, PJ		X	
11.3.8	Hire additional staff to provide better training and service for computer / Internet workstations.	CC, PJ		X	

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
11.4	***Develop and implement a long-range facilities plan for municipal operations to address future space needs and ensure access to all residents.***				
11.4.4	Finance capital improvements and manage debt consistent with the needs and priorities identified through the Master Plan.	CC, PJ	X		

Further Plans and Studies

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
Land Use					
5.3	***Encourage preservation and sensitive utilization of natural areas, particularly floodplains, wetlands, the Red River and its tributaries.***				
5.3.1	Design a network of trails throughout the MPC Planning Area and incorporate strategic floodplains, such as those along significant tributaries and the Red River.	MPC, CC, PJ		X	
5.4	***Utilize, revitalize and maintain the urban areas of Bossier in a manner that represents dynamic character and strengthens economic capacity.***				
5.4.1	Develop a series of district plans that offer the strategic vision for such sites as the arena district, the gaming district, downtown, the medical district and the technology district (around Bossier Parish Community College).	MPC, CC, PJ		X	
5.4.2	Determine strengths, weaknesses, opportunities and action strategies for each at risk neighborhood.	MPC, CC, PJ		X	
5.4.3	Conduct a commercial and residential neighborhood analysis to determine those neighborhoods and subdivisions that could be categorized as "at risk" of decline.	MPC	X		
5.4.5	Determine the implementation steps necessary to successfully fulfill the plans for each district and begin to seek out potential development partners.	MPC, CC, PJ		X	
5.4.6	Develop a program for each area, including an incentive package, design standards, availability of land and facilities, and description of amenities.	MPC, CC, PJ		X	
5.4.7	Strengthen interconnections with other areas of the Bossier City-Parish Metropolitan Planning Commission Planning Area.	MPC, CC, PJ			X
Parks & Open Space					
6.1	***Promote the conservation of natural resources through parks and recreation land acquisition, open space preservation, and environmentally sensitive planning.***				
6.1.6	Utilize the City-Parish Flood Hazard Mitigation Plan to identify areas of repetitive structure flooding where mitigation activities may result in publicly owned open space.	MPC, CC, PJ	X		
6.2	***Provide a diverse blend of parks, recreation and open space areas throughout the City and the MPC planning area.***				
6.2.10	Prepare a parish wide parks, recreation and open space master plan to incorporate the Bossier City Ten-Year Recovery Action Program and the Bossier City-Parish Master Plan, with the specific needs for facilities and improvements within the Parish.	MPC, CC, PJ		X	
6.6	***Continue the parks and recreation area improvement program, including maintenance, renovation and/or redevelopment of existing and new public parks and facilities.***				
6.6.2	Utilize the recommended parish wide master plan to determine development and improvement needs and establish an action plan.	MPC, CC, PJ	X		
6.7	***Develop an on- and off-street network of pedestrian and bicycle ways throughout the MPC planning area.***				
6.7.1	Prepare a pedestrian and trail master plan to identify specific routes, development standards and criteria, engineering specifications and a phased implementation plan.	MPC, CC, PJ	X		
6.7.2	Identify potential greenbelt corridors, bicycle and pedestrian trails and routes and linear parks that can provide a safe and secure connection between parks, schools, neighborhoods and open spaces.	MPC, CC, PJ, BSPB	X		

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
6.7.6	Submit applications for federal grants through the Transportation Equity Act for the 21st Century (TEA-21) and other available programs to leverage funds for bikeway and trail planning and development.	MPC, CC, PJ	X		
6.7.8	Identify minor arterial, collector and local residential streets that are suitable for bicycle traffic and the designation of bicycle routes or lanes.	MPC, CC, PJ	X		
6.9	***Identify dedicated funding sources for the acquisition, development, operation and maintenance of parks and recreation areas, facilities, programs and activities.***				
6.9.1	Conduct a comprehensive parks and recreation needs assessment for the MPC planning area to identify deficiencies and improvement needs of the existing system and future needs, which will determine the level of financial commitment needed to develop and sustain and adequate parks and recreation system.	MPC, CC, PJ	X		
6.9.2	Identify all potential funding sources, including Federal, State, Parish, City and School Board programs and budgets, donated and volunteer resources, and revenue sources such as user fees, exactions, fee-in-lieu of land, etc.	MPC, CC, PJ	X		
6.9.3	Develop a capital improvement program for parks and recreation areas and facilities in the City and Parish and identify a five-year plan of priority improvements and a source of funds.	MPC, CC, PJ	X		
6.9.4	Annually prepare nominations and applications to qualify for grant assistance or other funding arrangements to finance annual capital improvements.	MPC, CC, PJ	X		
Transportation					
7.1	***Improve mobility by key thoroughfare improvements, new construction and enhancing the existing street infrastructure.***				
7.1.16	Identify opportunities for acquiring undeveloped lots or other parcels to extend collector roadways within developing areas to provide for adequate connections between developments.	MPC, CC, PJ		X	
7.2	***Mitigate railroad grade crossing conflicts to reduce interference with other modes of transportation.***				
7.2.3	In coordination with LA DOTD, analyze and make necessary recommendations for highway/rail grade crossing safety initiatives at key crossings, including at Airline Drive (South of Northside) at KCS, Hamilton/Shed Road at UP, Barksdale Boulevard at KCS, and Benton Road (North of Shed Road) at KCS to improve warning/protection of vehicular traffic.	LADOTD, CC, PJ	X		
7.2.6	Consider coordination with the LA DOTD and U.S. DOT to identify the feasibility of rail line consolidation and/or rail line realignments away from the urbanized area to be situated closer to customers and potential warehousing/distribution activities associated with the development of the Port of Shreveport/Bossier and the proposed IH 69 corridor in the southeastern portion of the MPC Planning Area.	RRs, LADOTD, CC, PJ	X		
7.3	***Promote pedestrian and bicycle pathways as a viable alternative to automobile traffic, particularly when tied to a public transportation system.***				
7.3.1	Conduct a comprehensive and detailed inventory of sidewalks and other pedestrian facilities throughout the community and prioritize needed improvements by use and proximity to public facilities.	CC, PJ	X		
7.3.2	Pursue additional grant opportunities through LA DOTD's Transportation Enhancement Program similar to pending projects such as the McDade Street Corridor Enhancement Project and the Civil War Red River Campaign Trail project.	CC, PJ		X	
7.3.5	Identify secondary arterials, collectors and local residential streets that are suitable for designation as a bicycle route.	MPC, CC, PJ	X		
7.3.6	Seek Federal and State financial assistance grants for pedestrian and bicycle transportation projects, such as transportation enhancement funds under the Transportation Equity Act for the 21st Century (TEA-21).	CC, PJ	X		
7.3.8	Consider funding sources such as improvement districts, Community Development Block Grants, transportation enhancement funds, and public-private partnerships for sidewalk improvements along existing roadways in established neighborhoods.	MPC, CC, PJ	X		
7.4	***Enhance the public transportation system to allow the combination of walking and public transportation to be considered a viable alternative to automobile use in the MPC Planning Area.***				
7.4.1	Conduct a transit study to evaluate the most efficient and cost-effective service options for expansion.	SPORT	X		

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
7.4.3	Seek funding assistance from the Federal Transit Administration (FTA), Louisiana Department of Transportation & Development (LA DOTD) or through a local referendum to subsidize fare box revenues.	SPORT, CC, PJ	X		
7.5	***Enhance the coordinated use of street, rail, water and air transportation as a single system designed for the efficient transportation of people, goods and materials.***				
7.5.1	Seek out development of the I-69 corridor in a location that allows for improved service to the Port and Shreveport Regional Airport.	NLCOG	X		
7.5.4	Study and improve movement of goods between Bossier Industrial Park and the Port and airport facilities.	NLCOG		X	
Utilities & Infrastructure					
8.2	***Develop a comprehensive flood and storm water management program to eliminate or mitigate floodplain and localized flooding, storm water quality issues, and bank erosion within the master plan study area.***				
8.2.2	Review flooding and related problems in the South Bossier River Basin Study, select desired problem solutions, prioritize, develop funding sources and implement the solutions.	CC, PJ	X		
8.2.3	Review the Benoit Bayou Flood Plain Management Study, develop projects to address identified flooding problems, develop funding sources and implement the solutions to address the problems in this key development area. Benoit Circle Drainage Report developed by FBL Associates can be used for a specific project for Northland Estates Subdivision.	CC, PJ	X		
8.2.7	Develop recommended best management practices and details for residential, commercial and industrial areas. All implemented practices should receive approval of Bossier City or Parish Engineers before installation is allowed.	MPC, CC, PJ	X		
Housing					
9.1	***Ensure that a variety of housing options are available to new and current residents of Bossier that are affordable at all income levels.***				
9.1.11	Closely examine local regulations and the approval process to determine if either contributes substantial cost to housing projects.	MPC, CC, PJ	X		
9.1.6	Consider development of a HOME Investment Partnership Consortium with areas surrounding Bossier City, including Bossier Parish.	MPC, BCD, CC, PJ	X		
9.1.7	Review the possibility of application for a Homeownership Zone from the Department of Housing and Urban Development.	MPC, BCD, CC, PJ	X		
9.1.8	Aid in application for other funding sources for housing from the Department of Housing and Urban Development that serve specific households that historically require affordable housing, such as the elderly and persons with disabilities.	MPC, BCD, CC, PJ	X		
9.3	***Maintain a high standard for existing neighborhoods, including ongoing maintenance, neighborhood revitalization, community leadership and development of amenities.***	MPC, BCD, CC, PJ			
9.3.10	Initiate neighborhood plans for the various existing residential areas throughout the Bossier planning area with priority to go to those neighborhoods that are most at risk of decline. In low and moderate income areas within Bossier City, these plans should be incorporated into the City's Consolidated Plan as Neighborhood Revitalization Strategies. In low and moderate income areas outside of Bossier City, Neighborhood Revitalization Strategies should be incorporated into the State's Consolidated Plan.	MPC, BCD, CC, PJ	X		
9.3.5	Utilize Community Development Block Grant funds to leverage other funds and to implement projects and programs aiming to improve neighborhood conditions in areas of low or moderate income and in efforts to eliminate "slum and blight." Projects and programs may include infrastructure repair, park and recreational opportunity development/improvement, removal of unsafe structures, or a variety of client-specific programs.	MPC, BCD, CC, PJ		X	
9.5	***Promote sensible growth that takes advantage of proximity to services and amenities, minimizes the strain on tax revenue, and promotes interconnection.***				
9.5.3	Determine acceptable levels of service for all public services and facilities and make them a consideration in approval of new development to ensure that water, wastewater, law enforcement, fire protection, emergency medical service, trash disposal, and recreational opportunities are adequately available.	MPC, CC, PJ	X		

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
9.8	***Preserve flood prone areas and other natural resources to the extent practicable through use of alternative development techniques, and design residential areas to minimize flooding problems and create amenities.***				
9.8.4	Establish an area wide map that indicates primary conservation areas to be protected during subdivision design.	MPC	X		
Community Image & Design					
10.1	***Give Bossier City and its significant component areas a character of good visual quality.***				
10.1.8	Create a common design concept for gateways as landmarks into the city from major thoroughfares and the Red River in order to offer a sense of significance upon arrival or departure from the area.	MPC, CC, PJ	X		
10.1.10	Create entry elements to establish uniqueness, identify location, signify importance, and give direction to Bossier neighborhoods and government campuses.	MPC, CC, PJ	X		
10.1.12	Create identity for districts through distinct boundaries that lets visitors know they have arrived at a very fun and festive place.	MPC, CC, PJ	X		
10.1.21	Establish a connection between downtown and new development along the Riverfront to enhance the number of amenities the area has to offer to visitors and guests.	MPC, CC, PJ	X		
10.1.22	Construct additional waterfront amenities for increased access to the Red River.	MPC, CC, PJ	X		
10.2	***Define areas by certain activities and functions and establish ways to separate them from one another.***				
10.2.3	Establish boundaries between neighborhoods and adjacent incompatible areas of use and shield unnecessary noise and traffic from intruding into neighborhoods.	MPC, CC, PJ	X		
10.2.5	Identify traffic patterns and keep neighborhood streets free from unwanted traffic and congestion in order to keep neighborhoods safe and quiet.	MPC, CC, PJ	X		
10.2.6	Determine major access routes and traffic patterns to control over use of highways by prioritizing usage, including restricting heavy use from light use areas.	MPC, CC, PJ	X		
10.3	***Bring economic benefit and improved quality of life by unifying the visual characteristic of Bossier City.***				
10.3.5	Actively plan the location of schools to offer close proximity to area neighborhoods allow children to relate to their surroundings and give sense of ownership to parents.	MPC, CC, PJ, BPSB	X		
10.3.6	Introduce new long-term and seasonal design elements, such as flags and banners indicating upcoming events and important dates, into the community to provide both vitality and public awareness.	MPC, CC, PJ	X		
10.3.12	Improve vehicular access and circulation within and around various districts.	MPC, CC, PJ	X		
Facilities & Education					
11.1	***Expand staffing and facilities as needed to maintain high standards for law enforcement functions in the MPC Planning Area.***				
11.1.16	Commit to coordination between the MPC and law enforcement entities to anticipate the need for new facilities resulting from growth and trends.	MPC, CC, PJ		X	
11.2	***Provide for facility maintenance and development, staff enhancement and equipment acquisition needed to meet the long-term fire protection needs of the MPC Planning Area.***				
11.2.1	Review fire staffing needs periodically and recruit additional employees as resources allow to meet increased demands for fire protection services.	VFDs, CC, PJ		X	
11.2.2	Regularly review service areas and response times, and plan and construct additional fire stations in appropriate locations.	VFDs, CC, PJ	X		
11.2.9	Coordinate between the MPC and the various fire departments to anticipate the need for new facilities resulting from growth and trends.	MPC, VFDs, CC, PJ		X	

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
11.3	***Support expansion of the Bossier Parish Library System and its efforts in providing educational and informational services to residents within the MPC Planning Area.***				
11.3.1	Continue to pursue grants to finance technology improvements, including the purchase of additional computers.	BPL	X		
11.3.7	Identify school library needs and seek to address them in a coordinated fashion through either system.	BPL, BPSB		X	
11.4	***Develop and implement a long-range facilities plan for municipal operations to address future space needs and ensure access to all residents.***				
11.4.1	Determine the type and quantity of capital improvements that are needed to eliminate existing deficiencies and maintain desired Levels of Service.	CC, PJ	X		
11.4.2	Establish priorities among capital improvement needs through annual review and amendments to the Capital Improvement Plan (CIP).	CC, PJ	X		
11.5	***Support the Bossier Parish School Board and other education institutions in providing quality education opportunities, including school facilities that are adequate to handle fluctuating enrollment projections.***				
11.5.2	Consider the development and implementation of a Charter School as necessary and feasible.	BPSB		X	
11.5.4	Assist BPSB as needed in developing Capital Facilities Plans that are consistent with the Master Plan.	MPC, BPSB	X		
11.5.8	Develop a process to determine needs based on identified standards that take into account current use as well as the existing condition of each facility.	MPC, BPSB	X		
11.5.9	Using a standardized process, compile and maintain an accurate space inventory for each school tied to the floor plans of each facility.	MPC, BPSB	X		

Ongoing Coordination and Maintenance

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
Land Use					
5.1	***Promote efficient, long term growth within the MPC Planning Area and outside of sensitive development areas.***				
5.1.3	Ensure coordinated participation between Barksdale AFB, Bossier City and Bossier Parish in future revisions or updates to the Joint Land Use Study or the AICUZ.	MPC, BAFB, CC, PJ	X	X	X
5.2	***Achieve a balanced, diverse and dynamic pattern of land uses that preserves and enhances the character of Bossier.***				
5.2.1	Utilize the Future Land Use Plan as a guide for the generalized distribution and location of uses.	MPC, CC, PJ	X	X	X
5.2.2	Monitor the changing allocations of existing land uses in relation to the ratios used to develop the Future Land Use Plan.	MPC	X	X	X
5.2.7	Ensure that a variety of housing options are available throughout the area and that options are well distributed in Bossier City and Bossier Parish.	MPC, CC, PJ	X	X	X
5.4	***Utilize, revitalize and maintain the urban areas of Bossier in a manner that represents dynamic character and strengthens economic capacity.***				
5.4.4	Coordinate with area homeowners associations, business associations, nonprofit organizations and other entities for implementation of revitalization efforts.	MPC	X	X	X
5.5	***Develop new areas with an appreciation for sensitive environments, long term quality of life, economic efficiency, and community character.***				
5.5.3	Incorporate daily commercial activity into commercial centers that are strategically located within ten minutes walking distance from home or a place of employment.	MPC, CC, PJ	X	X	X
5.5.8	Ensure that development occurs in a progressive manner from existing urban areas or from the satellite urban villages.	MPC, CC, PJ	X	X	X
5.6	***Develop and implement a series of policies, regulations, processes and incentives that consistently represent the vision of the community and the character of the area.***				
5.6.1	Establish a means of maintaining communication between organizations such as Bossier City, Bossier Parish, the Metropolitan Planning Commission, the Northwest Louisiana Council of Governments, and the Bossier Parish Community College, Barksdale AFB, and other necessary parties.	MPC & OTHER	X	X	X
5.6.2	Incorporate the Plan into everyday decision making processes, as appropriate, including meetings and hearings of the Metropolitan Planning Commission, Bossier City Council, Bossier Parish Police Jury, and other bodies.	MPC & OTHER	X	X	X
5.6.3	Annually report on the progress of meeting the goals of the Plan.	MPC	X	X	X
5.6.4	Maintain public recognition of the Plan as a dynamic document created to implement the vision of the general public of the MPC Planning Area.	MPC & OTHER	X	X	X
5.6.5	Create a task force charged with annual review of the Plan for continued relevance, necessary changes and altered course.	MPC & OTHER	X	X	X
Parks & Open Space					
6.2	***Provide a diverse blend of parks, recreation and open space areas throughout the City and the MPC planning area.***				
6.2.5	By the Year 2020, aim to comply with the minimum standards for each park classification both within the City and the MPC planning area.	CC, PJ	X	X	X
6.6	***Continue the parks and recreation area improvement program, including maintenance, renovation and/or redevelopment of existing and new public parks and facilities.***				
6.6.1	Utilize the recommendations of the Ten-Year Park Recovery Action Program to adequately maintain and improve the parks within Bossier City.	CC, PJ	X	X	X
6.6.3	Conduct annual physical condition assessments of the existing parks and recreation grounds and facilities to identify necessary improvements and to determine the level of financial commitment required to make necessary improvements.	CC, PJ	X	X	X
6.6.4	Develop a City-Parish operation and management plan for development of facilities and delivery of parks and recreation services, including a continuous maintenance plan with scheduling and personnel tracking.	CC, PJ	X	X	X

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
6.8	***Establish cooperative agreements and coordinated efforts with other governmental jurisdictions, educational bodies, and private sector entities.***				
6.8.1	Develop an agreement between the City of Bossier City, Bossier Parish and the Bossier Parish School Board to include joint acquisition of land and effective use of school and municipal buildings and facilities, which will result in higher quality recreation opportunities at a more reasonable cost to the taxpayer.	CC, PJ, BPSB	X	X	X
6.8.2	Establish a partnership with the State of Louisiana to jointly acquire, develop, operate, and manage regional and statewide parks and recreation facilities, activities, programs, and conservation areas.	CC, PJ	X	X	X
6.8.3	Coordinate with the Red River Waterway Commission, the U.S. Army Corps of Engineers, the Louisiana Department of Wildlife and Fisheries and other local, regional, state and federal agencies to provide areas and facilities for use by residents and visitors to the City and Parish.	MPC & OTHER	X	X	X
6.8.4	Establish an intergovernmental agreement between Bossier City and Bossier Parish for the acquisition, development and maintenance of parks within the MPC planning area.	CC, PJ	X	X	X
6.8.5	Establish cooperative agreements with developers and landowners in the growth areas of the Parish to develop parkland in new residential areas. This may include the dedication of parkland that would be maintained by the City or Parish.	MPC, CC, PJ	X	X	X
6.8.7	Encourage educational institutions and nonprofit organizations to acquire, manage, and operate parks and open space conservation areas.	MPC	X	X	X
6.8.8	Establish lines of communication with citizens to assist in the planning, design and development of parks within their respective neighborhoods.	MPC, CC, PJ	X	X	X
Transportation					
7.1	***Improve mobility by key thoroughfare improvements, new construction and enhancing the existing street infrastructure.***				
7.1.1	Coordinate with LA DOTD for improvement of Barksdale Boulevard to a five-lane configuration.	CC, PJ, LADOTD	X	X	X
7.1.15	Coordinate land development decisions with the Master Thoroughfare Plan to ensure that the integrity of the street system is maintained and that access and circulation are acceptable both on and off site.	MPC	X	X	X
7.1.18	Establish a formalized partnership with LA DOTD, Bossier City, Bossier Parish and the NLCOG to regularly discuss and coordinate area wide transportation improvements within the MPC Planning Area. Key issues include rights-of-way preservation, thoroughfare improvements, trails and bikeways and public transportation.	MPC, CC, PJ, NLCOG, LADOTD	X	X	X
7.1.2	Coordinate with the City of Shreveport to provide for thoroughfare system development and additional bridges across the Red River. For example, link McDade Street in Bossier City to Stoner Avenue in Shreveport and widen the Jimmie Davis Bridge.	CC, PJ, CoS	X	X	X
7.2	***Mitigate railroad grade crossing conflicts to reduce interference with other modes of transportation.***				
7.2.4	Coordinate with the railroad companies (Union Pacific and Kansas City Southern) for future thoroughfare improvements that intersect railroad right-of-way.	MPC, CC, PJ	X	X	X
7.2.5	Coordinate and communicate with the railroad companies (Union Pacific and Kansas City Southern) as well as LA DOTD and the U.S. DOT to identify safety and traffic congestion solutions, including limiting rail service during peak traffic hours and establishment of a speed limit through urbanized areas.	MPC, CC, PJ	X	X	X
7.5.2	Endorse continued internal improvements to the Port and airport systems.	NLCOG	X	X	X
7.5.3	Coordinate among all components of the multimodal system to determine growth needs of all components, including air, water and rail.	NLCOG	X	X	X
Utilities & Infrastructure					
8.2	***Develop a comprehensive flood and storm water management program to eliminate or mitigate floodplain and localized flooding, storm water quality issues, and bank erosion within the master plan study area.***				
8.2.5	Have the Bossier City Engineer's office and appropriate Barksdale AFB personnel develop a working relationship concerning mutually beneficial drainage and floodplain conservation and improvement projects.	CC, BAFB	X	X	X
8.2.6	Coordinate drainage hydrologic and hydraulic design and analysis criteria between Bossier City's and Bossier Parish's Engineering offices and develop design criteria manuals for use by engineers and developers for new development and substantial redevelopment areas. Manuals could also include situations where retention or detention ponds would be required.	MPC, CC, PJ	X	X	X

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
8.2.9	Review, amend as required, and adopt the new FEMA Flood Insurance Rate Maps for the Master Plan study area in order to have the most accurate and up-to-date flood level information to assist new development and flood mitigation programs.	CC, PJ	X	X	X
8.6	***Assure high quality, low maintenance utility infrastructure that is in regulatory compliance.***				
8.6.2	Require department head and supervisory staff input and review during project preliminary design development.	MPC, CC, PJ	X	X	X
8.7	***Improve efficiency and effectiveness of the Utilities Department in preparation for an expanded area of responsibility due to anticipated growth and development within the MPC area.***				
8.7.4	Improve methods of communication, correspondence and record keeping within the department to coordinate work orders, document maintenance records, expedite materials, report laboratory findings and avoid redundancy.	CC, PJ	X	X	X
Housing					
9.1	***Ensure that a variety of housing options are available to new and current residents of Bossier that are affordable at all income levels.***				
9.1.4	Coordinate with the Community Development Department to determine organizations capable of becoming involved in development of affordable housing, including church organizations, Habitat for Humanity and other nonprofit institutions.	MPC, BCD	X	X	X
9.1.5	Establish and maintain relationships with area builders and financial institutions to determine interest in assisting in development of affordable housing through programs that allow builders to share responsibility for creation of affordable housing and financial institutions to establish a revolving loan fund for pre-construction loans to area builders in development of affordable housing.	MPC	X	X	X
9.3	***Maintain a high standard for existing neighborhoods, including ongoing maintenance, neighborhood revitalization, community leadership and development of amenities.***				
9.3.13	Develop a neighborhood based Capital Improvements Plan that corresponds to area needs, the community-wide CIP, ability to obtain funding through the budget or other resources, and, if available, neighborhood plans.	CC, PJ	X	X	X
9.3.2	Streamline the permit approval processes for builders and organizations that utilize existing vacant lots in a manner that compliments and improves the neighborhood.	MPC, CC, PJ	X	X	X
9.3.7	Engage participation in neighborhood improvement and revitalization efforts from entities such as churches, civic organizations, schools, and businesses through programs such as neighborhood clean-up, home improvement, and beautification.	MPC, BCD	X	X	X
9.3.8	Seek out resources from community revitalization organizations and foundations such as the Local Initiatives Support Corporation (LISC).	MPC, BCD	X	X	X
9.4	***Maintain an attractive, quality housing stock that promotes Bossier as a community with pride.***				
9.4.3	Assist neighborhood organizations in development of deed restrictions and provide the training and support necessary for private enforcement.	MPC	X	X	X
Facilities & Education					
11.1	***Expand staffing and facilities as needed to maintain high standards for law enforcement functions in the MPC Planning Area.***				
11.1.1	As the population continues to grow, periodically review the staffing needs of area law enforcement agencies and hire additional qualified staff to accommodate growth and increased demands for service.	MPC, CC, PJ	X	X	X
11.1.10	Maintain communications with neighborhood associations and create neighborhood watch programs wherever feasible.	MPC, CC, PJ	X	X	X
11.1.13	Encourage inter-jurisdictional cooperation among law enforcement and corrections agencies to further develop, where practical, shared services and facility use.	MPC, CC, PJ	X	X	X
11.1.2	Maintain equipment inventories and identify replacement and acquisition needs in advance to ensure appropriate budgeting.	MPC, CC, PJ	X	X	X
11.1.8	Monitor participation and benefits of the ride along program and promote or expand as appropriate.	MPC, CC, PJ	X	X	X

Element	Goal/Action	Department	Timing (In Years)		
			0-2	3-5	5+
11.2	***Provide for facility maintenance and development, staff enhancement and equipment acquisition needed to meet the long-term fire protection needs of the MPC Planning Area.***				
11.2.6	Encourage continued inter-jurisdictional cooperation among fire districts, including sharing of equipment and facilities and eventual consolidation of districts, where practical.	MPC, CC, PJ	X	X	X
11.3	***Support expansion of the Bossier Parish Library System and its efforts in providing educational and informational services to residents within the MPC Planning Area.***				
11.3.9	Encourage inter-jurisdictional cooperation, sharing of equipment and facilities, and consolidation of districts.	MPC, CC, PJ	X	X	X
11.4	***Develop and implement a long-range facilities plan for municipal operations to address future space needs and ensure access to all residents.***				
11.4.3	Monitor the implementation of the Capital Improvement Program and area development trends to ensure that the Land Use and Transportation elements and capital facilities planning are coordinated and consistent.	MPC	X	X	X
11.5	***Support the Bossier Parish School Board and other education institutions in providing quality education opportunities, including school facilities that are adequate to handle fluctuating enrollment projections.***				
11.5.1	Request that the Bossier Parish School Board provide an annual report to the MPC to evaluate the district's ability to accommodate shifting populations and new growth.	MPC, BPSB	X	X	X
11.5.12	Annually review school attendance zones to avoid over- or under-crowding of particular campuses.	MPC, BPSB	X	X	X
11.5.3	Encourage arrangements for shared access to facilities for recreational or other civic purposes.	MPC, CC, PJ, BPSB	X	X	X