



1 INTRODUCTION

1.1 Purpose

The City of Bossier City prepared this Local Hazard Mitigation Plan (LHMP) update to continue guiding hazard mitigation planning to better protect the people and property of the City from the effects of hazard events. This plan demonstrates the community's commitment to reducing risks from hazards and serves as a tool to help decision makers direct mitigation activities and resources. This plan was also developed so the City of Bossier City can be eligible for certain federal disaster assistance, specifically, the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Assistance Grants.

1.2 Background and Scope

Each year in the United States, natural disasters take the lives of hundreds of people and injure thousands more. Nationwide, taxpayers pay billions of dollars annually to help communities, organizations, businesses, and individuals recover from disasters. These monies only partially reflect the true cost of disasters, because additional expenses to insurance companies and nongovernmental organizations are not reimbursed by tax dollars. Many natural disasters are predictable, and much of the damage caused by these events can be alleviated or even eliminated.

Hazard mitigation is defined by FEMA as "any sustained action taken to reduce or eliminate long-term risk to human life and property from a hazard event." The results of a three-year, congressionally mandated independent study to assess future savings from mitigation activities provides evidence that mitigation activities are highly cost-effective. On average, each dollar spent on mitigation saves society an average of \$4 in avoided future losses in addition to saving lives and preventing injuries (National Institute of Building Science Multi-Hazard Mitigation Council 2005).

Hazard mitigation planning is the process through which hazards that threaten communities are identified, likely impacts of those hazards are determined, mitigation goals are set, and appropriate strategies to lessen impacts are determined, prioritized, and implemented. This plan documents the City of Bossier City's hazard mitigation planning process update and identifies relevant hazards and vulnerabilities and strategies the City will continue to use to decrease vulnerability and increase resiliency and sustainability in Bossier City.

This LHMP is a single jurisdictional plan for the Bossier City that geographically covers everything within the Bossier City's jurisdictional boundaries (hereinafter referred to as the planning area).

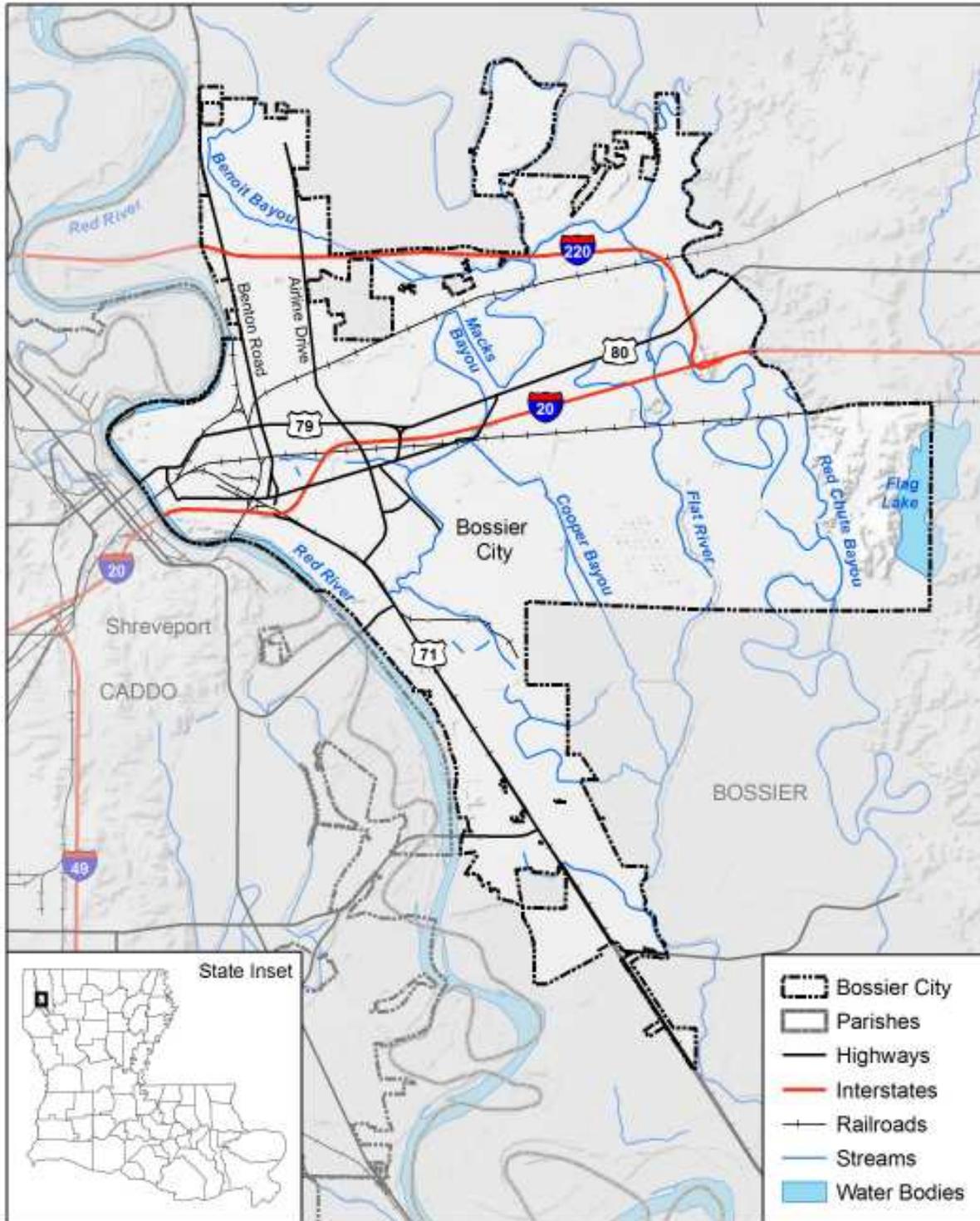
This plan was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 (Public Law 106-390) and the implementing regulations set forth by the Interim Final Rule published in the *Federal Register* on February 26, 2002, (44 CFR §201.6) and finalized on October 31, 2007. (Hereafter, these requirements and regulations will be referred to collectively as the Disaster Mitigation Act or DMA.) While the act emphasized the need for mitigation plans and more coordinated mitigation planning and implementation efforts, the regulations established the requirements that local hazard mitigation plans must meet in order for a local jurisdiction to be eligible for certain federal disaster assistance and hazard mitigation funding under the Robert T. Stafford Disaster Relief and Emergency Act (Public Law 93-288). Because the Bossier City planning area is subject to many kinds of hazards, access to these programs is vital.

Information in this plan will be used to help guide and coordinate mitigation activities and decisions for local land use policy in the future. Proactive mitigation planning will help reduce the cost of disaster response and recovery to communities and their residents by protecting critical community facilities, reducing liability exposure, and minimizing overall community impacts and disruptions. The Bossier City planning area has been affected by hazards in the past and is thus committed to reducing future impacts from hazard events and continuing eligibility for mitigation-related federal funding.

1.3 Community Profile

The City of Bossier City is illustrated in Figure 1.1.

Figure 1.1 Bossier City Base Map



Map compiled 4/2010; intended for planning purposes only.
 Data Source: City of Bossier City, LAGIC



1.3.1 History

The area of Bossier City dates back to the 1830's when it was the Elysian Groves Plantation of James and Mary Cane. Steamboat loads of cotton, corn, and sweet potatoes were shipped to markets in the south and east, from the plantation port known to many as "Cane's Landing." During the Civil War, several companies of local confederate soldiers left Cane's Landing aboard steamboats for the distant battlefields. During the war, the riverfront was protected from Union invasion by the artillery embankments of Battery's Price, Walker and Ewell. The Confederates' Fort Smith stood near what is now Bossier High School and protected the area from an eastern invasion.

Many, many early settlers passed through the region on their way to the Wild West. By 1850, over 200 wagons a week were passing through Bossier City. Some of these settlers stayed, attracted by the fertile soil and lush river valley. By 1882, the plantation was at the center of the convergence of the infamous Shed Road, the Red River steamboat waterway, and the soon to arrive "Iron Horse" railroad. The plantation was reached from the west, across the Red River by means of a ferryboat named the "Sterling White." Anna B., granddaughter of James and Mary, together with her husband J. J. Stockwell, felt the area would prosper and began promoting the idea of a riverfront city. Anna B. and J. J. Stockwell started selling lots in their newly formed Bossier City on October 5, 1883. The area grew quickly, as did transportation through it.

The golden spike, commemorating the completion of the east-west Vicksburg, Shreveport and Pacific Railroad, was driven at Bossier City on July 12, 1884, by Julia "Pansy" Rule. It was the first such spike driven by a woman. The north-south Shreveport and Arkansas Railroad was completed through Bossier City on April 6, 1888. The Louisiana-Arkansas Railroad was completed through on November 2, 1909. The Dixie Overland Highway from the east to west coast was built through Bossier City in 1918. These railroads and highways combined to make Bossier City a hub for future activity. Bossier City's population expanded from 775 citizens in 1910, to 3,000 in 1930, 5,000 in 1940 and 15,260 in 1950, with another 10,000 living just outside the City. By 1950, Bossier City attained the designation "The Fastest Growing City in Louisiana." In 1997, that population was approximately 55,000.

A devastating fire, on June 23, 1925, consumed one-half of downtown Bossier City. That tragedy found local citizens unable to battle the ferocious blaze. The loss spurred civic improvements including a modern water system, capable of fighting such fires, a new City Hall, a modern fire alarm system, modern sidewalks and the first city park. An area south of Bossier City was chosen in 1928 to house a National Guard air squadron. Barksdale Field was officially dedicated February 3, 1933. It was later renamed Barksdale Air Force Base, and is home to the "mighty" Eighth Air Force. It's social and economic impact to Bossier City and Northwest Louisiana has

never been questioned. From this, two major city arteries derive their names, Barksdale Blvd and Airline Dr.

The discovery of petroleum crude oil, to the south, in 1908, thrust Bossier City into the nationwide oil boom. Bossier City's central location to the many rural oil fields made it a major player in the oil patch. Several international oil companies located here. The economic advantages brought by "black gold" fueled many more civic, social and economic improvements.

Bossier City has thrived because it is transitional. First a cotton exporting river landing, next a railroad town, then an airbase and oil-boom town, it now garners attention, tourism and an economic boost from the latest boom: recreational gaming. Three riverboats, Horseshoe, Boomtown Casino, and Diamond Jacks line Bossier City's developing riverfront.

1.3.2 Geography and Climate

Bossier City and Bossier Parish are located in northwestern Louisiana, approximately 20 miles east of Texas and 35 miles south of Arkansas. Bossier City covers approximately 38 square miles. 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.

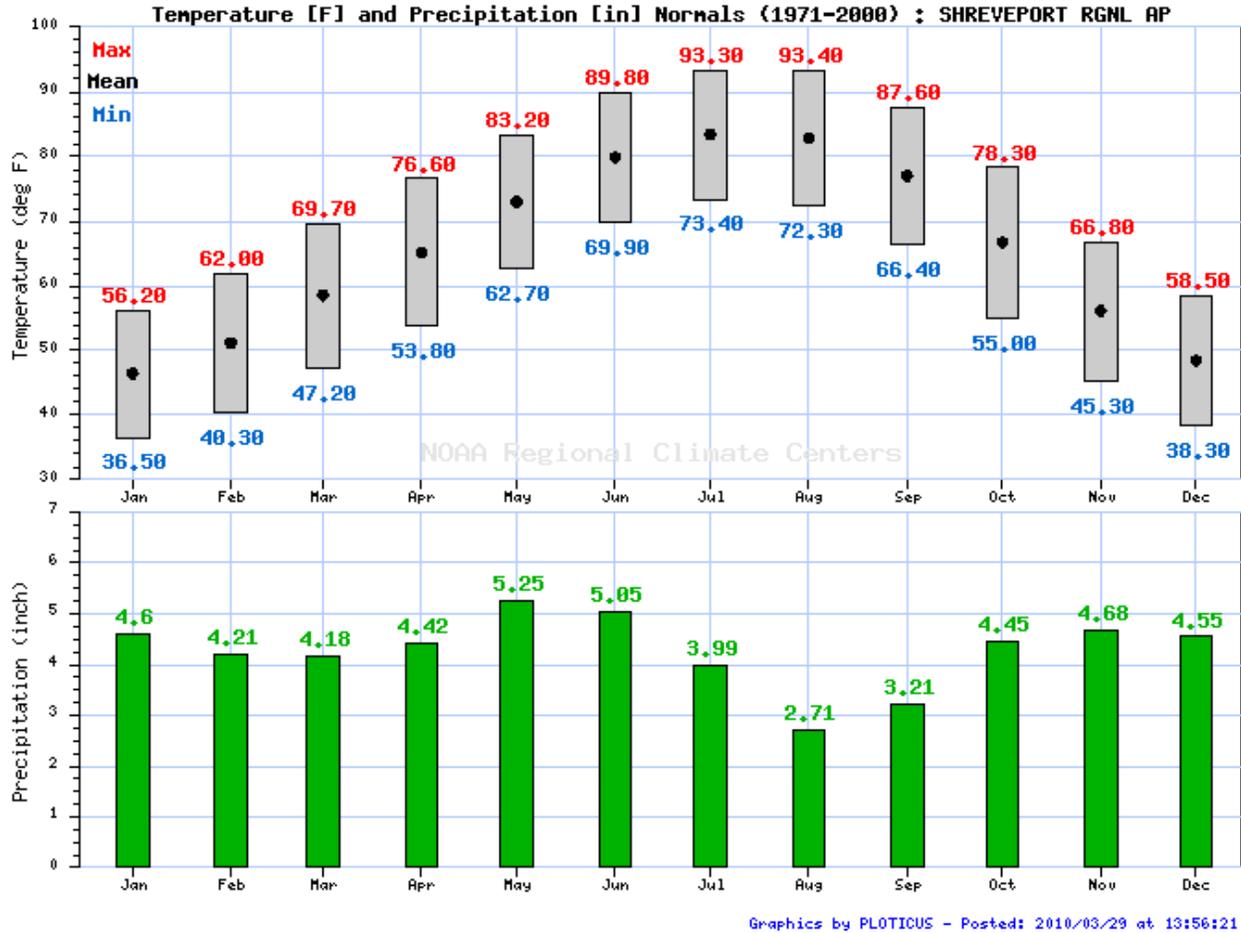
Bossier City is located in the Red River Basin. The Red River runs along the western border of the City. The area of Bossier Parish that contains Bossier City is hilly land, except for the Red River floodplain, which is relatively flat and is excellent for growing crops and commercial growth. The Flat River runs on the eastern side of the City and is responsible for draining water to the south of the City.

Approximately 35 percent of the total land area of Bossier City is located within FEMA's 100-year floodplain. The majority of the floodplain is found along the Red Chute Bayou and Mack's Bayou. Floodplain is also located along the Flat River, Buzzard Boost Bend, and Willow Chute. The floodplain is illustrated on Figure 4.38 in Section 4.3.3 Vulnerability of the City of Bossier City to Specific Hazards.

Bossier City has a semitropical climate. January is the coldest month averaging 46°F, and July and August the warmest, averaging 82°F for Bossier City. Winter months are usually mild with

cold spells of short duration. Snowfall is less than 2 inches per year. The summer months are quite warm, with an average daily maximum temperature in July and August of 93°F degrees. The average number of days above 90°F is 121. The average number of days with a minimum temperature below 32°F is 23. Average annual precipitation for the area is 51.3 inches. Figure 1.2 summarizes average monthly temperatures and precipitation in Shreveport, just across the river from Bossier City. Specific data is not available for Bossier City.

Figure 1.2 Shreveport Temperature and Precipitation Averages



Source: Southern Regional Climate Center.
http://www.srcc.lsu.edu/stations/index.php?action=metadata&network_station_id=168440

1.4 Economy

The most comprehensive economic data available for the Bossier City is from the U.S. Census Bureau by way of the American Community Survey. Select estimates of economic characteristics for Bossier City are shown in Table 2.1.

Table 1.1 Bossier City's Economic Characteristics, 2008

Characteristic	
Families below Poverty Level	11.1%
All People below Poverty Level	14.9%
Median Family Income	\$45,398
Median Household Income	\$55,712
Per Capita Income	\$24,037
Population in Labor Force*	31,845
Population Employed*	2,200
Unemployment*	7.7%

Source: U.S. Census Bureau American Community Survey, 2008, www.census.gov/

*Excludes armed forces

Table 1.2 illustrates the breakdown of employment by industry in Bossier City in 2008, and Table 1.3 lists the City's 15 largest employers.

Table 1.2 Bossier City's Employment by Industry, 2006-2008*

Industry	# Employed	% Employed
Agriculture, Forestry, Fishing , Mining	671	2.5
Construction	1,860	7.0
Manufacturing	1,768	6.8
Transportation and warehousing, and utilities	1,202	2.6
Information	514	1.9
Wholesale Trade	1,286	4.9
Retail Trade	3,092	11.7
Finance, Insurance, Real Estate	1,546	5.9
Arts, entertainment, and recreation, and accommodation, and food services	3,399	12.9
Educational and Health Services	5,926	22.5
Professional, scientific, and management, and administrative and waste management services	2,170	8.2
Other Professional and Related Services	949	3.6
Public Administration	1,991	7.5
Totals	26,392	100.0

Source: U.S. Census Bureau American Community Survey, 2006/2008, www.census.gov/

*Civilian population 16 or older

Table 1.3 Bossier City's Major Employers

Employer	Products and Services	# of Employees
Barksdale Air Force Base	Military	9,018
Bossier Parish School Board	School System	2,638
Harrah's Horseshoe Casino Hotel Harrah's Louisiana Downs	Gaming Casino Hotel & Race Track	2,000
State of Louisiana - Dept. of Civil Service	Government	1,857
Diamond Jack's Casino Resort	Gaming Casino & Hotel	963
Willis Knighton Health System	Health Care	834
City of Bossier City	Government	826
Boomtown Casino	Gaming Casino & Hotel	787
McElroy Metal, Inc.	Roofing	700
Wal-Mart Supercenter - Airline Drive	Retail	639
Bossier Parish Community College	Education	586
Cellxion, LLC	Communication Towers/Concrete Shelters	485
Halliburton Energy Services	Oil field services	424
Northwest Supports & Services Center	Health Care – Residential Facility	412
Pilgrim's Pride - Bossier City	Frozen Food Processing	320

Source: Greater Bossier Economic Development Foundation, Directory of Major Employers as December 2007.

http://www.gbedf.org/major_employers.cfm

1.4.1 Population

Bossier City has an estimated 61,027 residents (2006-2008), according to the U.S. Census Bureau. Bossier City is urbanized and primarily built out. Table 1.4 breaks down Bossier City's demographics.

Table 1.4 Bossier City's Demographic and Social Characteristics, 2008

Characteristic	
Gender/Age	
Male	50.3%
Female	49.7%
Median Age	31.4
Under 5 Years	8.5%
65 Years and Over	11.3%
Race/Ethnicity**	
White	68.4%
Some Other Race	1.0%
Asian	2.6%

Characteristic	
Black or African American	26.4%
American Indian/Alaska Native	0.2%
Hispanic or Latino (Any Race)	6.1%
Education	
High School Graduate or Higher	84.7%

Source: U.S. Census Bureau American Community Survey, 2006, www.census.gov/

**Of the 98.7 % reporting one race

More demographic information and information on growth can be found in Section 4.3.2 Growth and Development Trends.

1.5 Plan Organization

The Bossier City Hazard Mitigation Plan is organized as follows:

- Chapter 2: 2011 Plan Update
- Chapter 3: Planning Process
- Chapter 4: Risk Assessment
- Chapter 5: Mitigation Strategy
- Chapter 6: Plan Adoption
- Chapter 7: Plan Implementation and Maintenance
- Appendices