

## 4.0 Regional Context

### 4.1 Geographic Setting

The State of Louisiana is divided into three geographic land areas: East Gulf Coastal Plain, Mississippi Alluvial Plain, and West Gulf Coastal Plain. These geographic areas are defined in relation to proximity to the Mississippi River and the Gulf of Mexico. Louisiana's position, astride the great delta of the Mississippi River at the southern end of the Mississippi embayment, is such that virtually all of the state's surface deposits and landforms reflect deposition of this relatively young material by the river and by a number of important coastal plain streams.<sup>5</sup>

**Figure 4-1 Monroe in Regional Context**



Source: peter j. smith & company, inc.

The City of Monroe is situated in the northeast portion of Louisiana within the Mississippi Alluvial Plain<sup>6</sup>. This area begins in Arkansas in the north and extends to the Gulf of Mexico in the south paralleling the Mississippi. The area immediately adjacent to the river is characterized by ridges and hollows while the fielded area situated on top of the ridges along the river are referred to as the "front lands"<sup>7</sup>. The City of Monroe is characterized by near level topography given its location entirely within a floodplain. The Ouachita River and its 11,000 square mile basin constitute this floodplain.

Of the approximately 20,000 acres of land that constitute Monroe, 70% exists within the 500-year floodplain. The remaining approximate 30% of the City land area lies within the 100-year floodplain. The majority of the areas that are within the 100-year floodplain are near the Ouachita River and Bayou DeSiard.

<sup>5</sup> Louisiana Geological Survey, Louisiana Geologic Facts, Public Information Series No. 6, February 2001

<sup>6</sup> [http://www.netstate.com/states/geography/la\\_geography.htm](http://www.netstate.com/states/geography/la_geography.htm)

<sup>7</sup> Ibid



The Ouachita River serves as a defining boundary of Monroe. It is situated along the west boundary of the City and flows in a north-south direction. With its beginnings in the Ouachita Mountains in Arkansas, the river flows south throughout Arkansas as a mountain stream until it reaches just south of Hot Springs, AK, where it empties into Ouachita Lake and then becomes a river on its way into Louisiana. Other important waterways in Monroe include Bayou DeSiard and Black Bayou Lake. A waterfront of both river and bayou winds a spine through the City that acts as a unifying element in the overall organization of the City.

Louisiana is essentially flat, having little to no elevation throughout the entire State. New Orleans has the lowest, flattest, and geologically youngest setting<sup>8</sup>. The metropolitan area has an average elevation of about 1.3 feet. Further northwest of New Orleans and to the west of Monroe, sits the highest point in the State, Mount Driskill. At 535 feet high, this landform is located 5.3 miles southeast of Bryceland, Louisiana, in the northwest portion of the State. Consisting of nonmarine quartz sands overlain by marine clays and silts and coastal sands of the Cook Mountain Formation, the landform was named for James Christopher Driskill who purchased the land occupying the mountain in 1859.<sup>9</sup>

### ***4.2 Geologic Setting***

Louisiana lies within the geologic tectonic province known as the Gulf Coast Basin where the rock structures are covered by thick sedimentary rocks. The rocks dip downward toward the sea causing the steady subsidence of the land. Over a period of some 50 million years, the Mississippi River rose and fell over the state carrying organic matter from the core of the North American continent and piling it upon the edge of the Gulf of Mexico.<sup>10</sup> The organic matter has also been deeply buried under the entire state, turning into petroleum. During dry periods, large beds of salt were laid down through evaporation, leaving salt domes interlaced in the sedimentary strata.

The geology of the state also features some regional systems of shallow growth fault lines. These fault systems trend for some distance, essentially paralleling the Louisiana coastline. The fault systems move as a gradual creep versus the sudden breaking of rock typically associated with earthquakes. No detected earthquakes have been attributed to any of the specific mapped fault systems.

### ***4.3 Socioeconomic Setting***

The State of Louisiana is divided into parishes. Monroe is located in Ouachita Parish and serves as the Parish seat. Parishes that border Ouachita Parish include: Union, Moorehouse, Richland, Caldwell, Jackson, and Lincoln. As the economic hub of northeast Louisiana, the City of Monroe serves as the healthcare and retail center for the surrounding area along with a strong presence of finance and insurance “back-office” employment.

A post-Katrina influx of people has helped the City and region experience a reduction in its unemployment rate to below four percent in 2006. The economy of Monroe fared well in light of Katrina – the value of new building permits increased nearly 50% in one year (from \$59 million in 2004 to nearly \$100 million in 2005)<sup>11</sup>.

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<sup>8</sup> Louisiana Geological Survey, Louisiana Geologic Facts, Public Information Series No. 6, February 2001

<sup>9</sup> Louisiana Geological Survey, Louisiana Geologic Facts, Public Information Series No. 6, February 2001

<sup>10</sup> <http://geology.about.com/library/bl/maps/bllouisianamap.htm>, accessed September 12, 2007

<sup>11</sup> College of Business Administration of ULM. The Economy and Demography of Northeast Louisiana, 2007.



Based on US Census 2000 data, of the top 10 cities in Louisiana, the City of Monroe is 8<sup>th</sup>, having a population of 53,107 as compared to New Orleans (1<sup>st</sup>) with 484,674 and New Iberia (10<sup>th</sup>) with 32,623. Cities situated within proximity to Monroe include Shreveport to the west, which was listed as the second-largest city in Louisiana with a 2000 population of 200,145 and Alexandria (9<sup>th</sup>), located south of Monroe, with a population of 46,342.<sup>12</sup>

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<sup>1212</sup> [http://www.netstate.com/states/alma/la\\_alma.htm](http://www.netstate.com/states/alma/la_alma.htm)