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An Update of the Field Guide to

Louisiana Soil Classification

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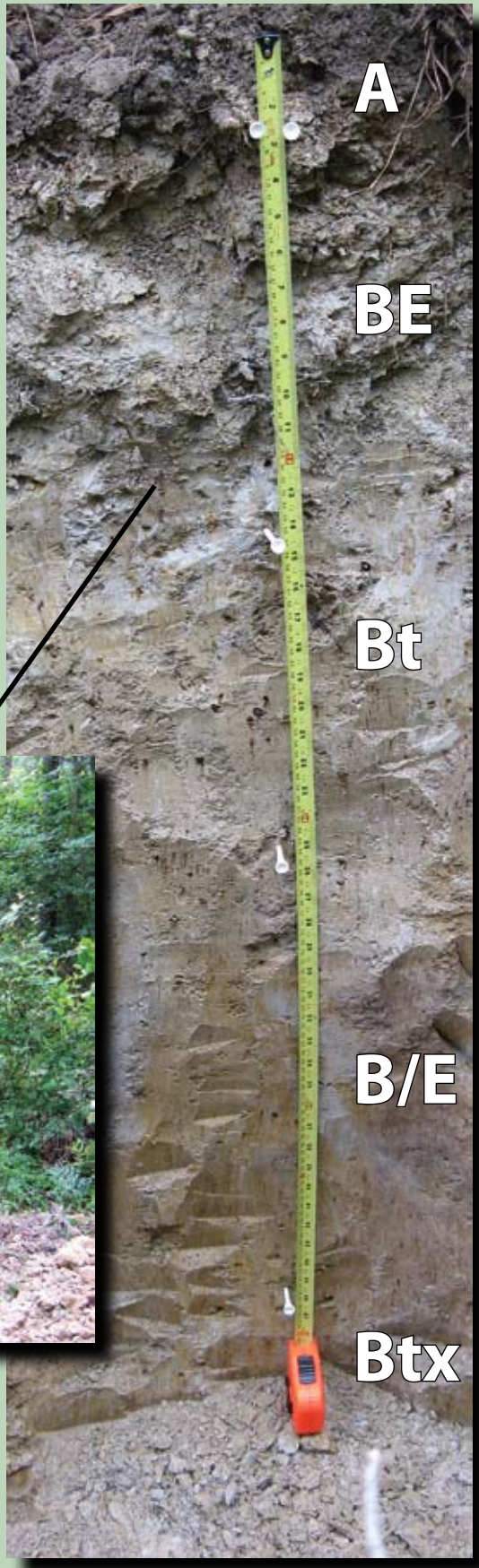

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Figure 1. Generalized geologic map of Louisiana (Louisiana Geological Survey, 2008)

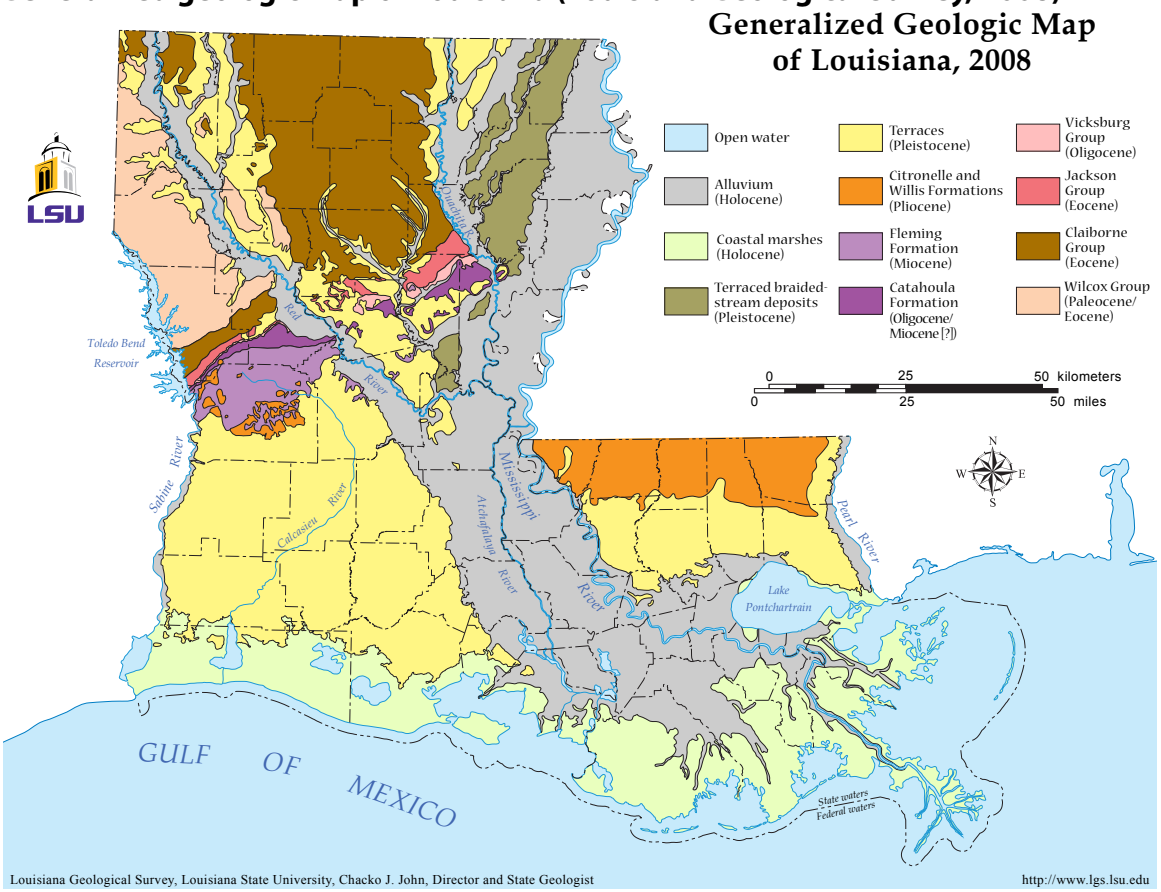
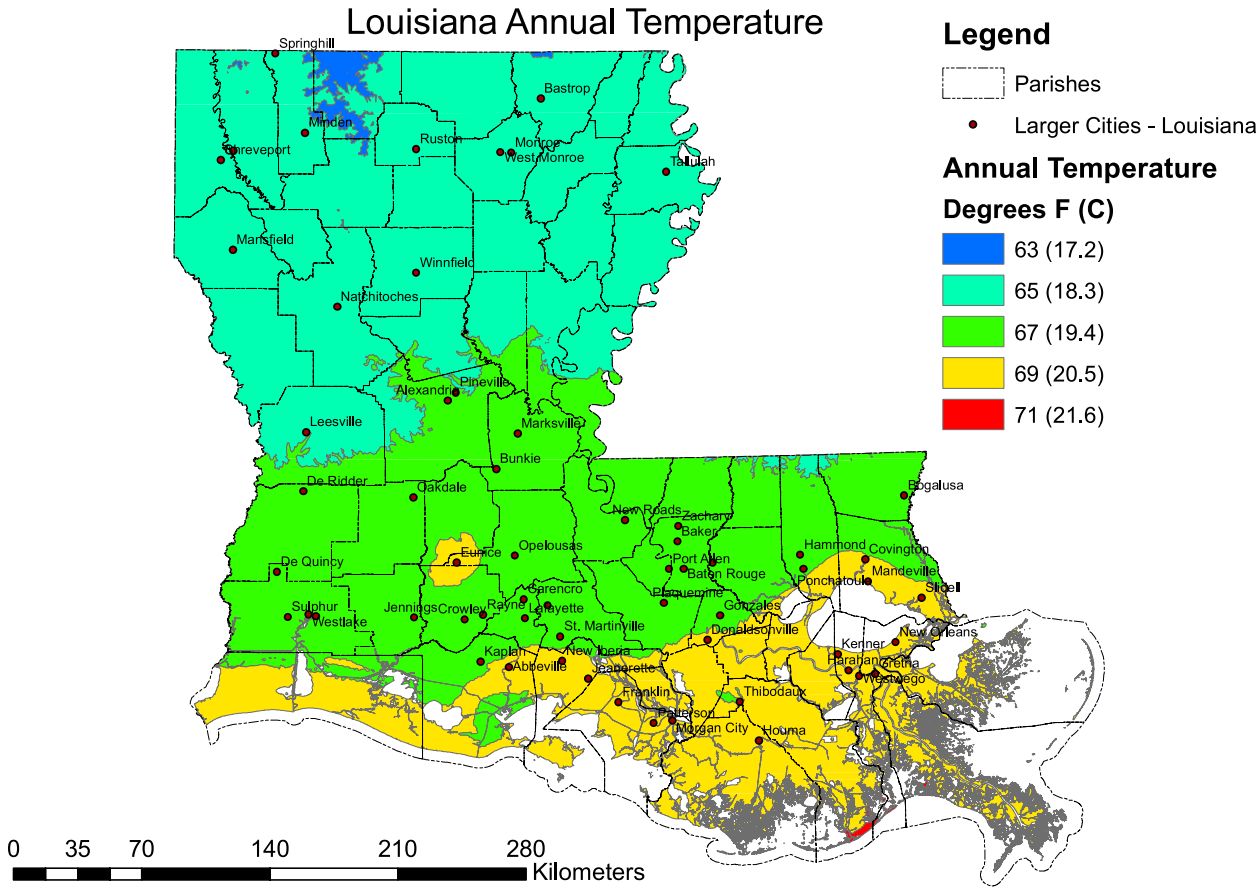


Figure 2. Louisiana annual temperatures (Soil Survey Staff, 2008a).



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ON THE COVER:
Fluker silt loam in East Feliciana Parish, Louisiana.
(Photos by David C. Weindorf)

PREFACE

This field guide represents an update of work by Amacher et al. (1989), the original idea of which started with Dr. Bob Miller. The guide provides researchers and others interested in soils with a concise key to the classification of soils throughout Louisiana along with information on geology, climate, vegetation, etc.

INTRODUCTION

For years, researchers have used county or parish soil surveys when conducting field work and research. Such surveys provided researchers with quick, easily accessible information (chemical, physical, taxonomic) in the field. The classification of soils has profound effects on a variety of soil properties from land use to agronomic productivity. Although initial soil survey work in Louisiana is complete, the inventory of soils in Louisiana is dynamic and subject to temporal change.

The soil survey staff continues to produce soil series updates and continually works to update soil maps in response to changing land use and concepts of soil survey. For example, soil surveys were published for years on an individual parish basis. Yet such political boundaries do not conform to natural soil or land use patterns. As such, parish soil surveys often resulted in fragmentation of soils data along artificial (political) boundaries. Today, much greater emphasis is placed on mapping soils across parish boundaries using the concept of major land resource areas (MLRAs).

With the advent of Web Soil Survey, the Soil Survey Staff has ceased printing of paper copy soil surveys. Although this allows for highly efficient updating of soils data available on the NRCS Web site, it can be more cumbersome to use since most field personnel do not have Internet-linked laptop computers for use in the field. Thus, this field guide has been assembled to serve as a link between historical soil surveys of the past and modern soil survey concepts.

General Occurrence and Features

Louisiana consists of 43,562 miles^2 (112,825 km^2) (U.S. Census Bureau, 2000) extending from the Gulf Coast inland some 379 miles (610 km). Elevation of the state ranges from 535 feet (163 m) (Driskill Mountain – Bienville Parish) to -7 feet (-2 m) (New Orleans)(U.S. Geological Survey, 2008). The state is dissected by numerous river systems, most notably the Mississippi River, Red River and Ouachita River (ATLAS, 2008). These rivers have historically provided a major source of alluvial sediment to the state. Geology of Louisiana consists largely of Pleistocene terraces and Holocene alluvium associated with the major rivers (Figure 1, inside front cover). Because flooding has been controlled through a series of dams, levees, etc., new sources of sediment deposition have been cut off and have contributed to subsidence, particularly along the coastline.

The climate of Louisiana is moist and subtropical. Average annual temperatures range from 63°F (17°C) in the northern part of the state to 71°F (22°C) along parts of the coast (Figure 2, inside front cover)(Soil Survey Staff, 2008a). Average annual rainfall ranges from 47 inches (119 cm) in the northwestern part of the state, to 71 inches (180 cm) in isolated areas north of Lake Ponchartrain (Figure 3, inside back cover) (Soil Survey Staff, 2008a). In the winter months, cold fronts advancing from north to south can cause sharp drops in temperatures, to include freezing temperatures in much of the state. Soil temperature regimes in Louisiana are thermic and hyperthermic (Figure 4, inside back cover). Field validation work on the dividing line between these two regimes has recently established the line farther south than originally mapped; and roughly along Interstate 10. Soil moisture regimes in Louisiana are udic or aquic (Figure 5, back cover).

Major Land Resource Areas (MLRAs)

The previous guide to classification of soils in Louisiana (Amacher et al., 1989) cited work by Lytle (1968) and Lytle and Sturgis (1962) in defining six major soil areas in Louisiana: coastal plain, flatwoods, coastal prairie, loess hills, recent alluvium and coastal marsh. Although these associations remain generally valid, they have been more precisely defined and differentiated by the Soil Survey Staff (2006a) into eleven major land resource areas (MLRAs)(Figure 6, back cover). It should be noted that the following descriptions and interpretations describe the entire MLRA area, some of which exist beyond the border of Louisiana. The Soil Survey Staff (2006a) define the MLRAs of Louisiana as follows:

131B—Arkansas River Alluvium

Louisiana constitutes 33 percent of this MLRA to include the town of Monroe, LA. Parts of Interstate 20 fall within this MLRA.

Physiography

This area is in the Mississippi Alluvial Plain Section of the Coastal Plain Province of the Atlantic Plain. It is on the alluvial plains along the lower Arkansas River in Arkansas and the Ouachita River in Louisiana and Arkansas. The landforms in the area are level or depressional to very gently undulating alluvial plains, backswamps, oxbows, natural levees and terraces. Landform shapes range from convex on natural levees and undulating terraces to concave in oxbows. Landform shapes differentiate water-shedding positions from water receiving positions, both of which affect soil formation and hydrology. Average elevations start at about 50 feet (15 meters) in the southern part of the area and gradually rise to about 250 feet (75 meters) in the northwestern part. Maximum local relief is about 10 feet (3 meters), but relief is considerably lower in most of the area.

Geology

Bedrock in this area consists of Tertiary and Cretaceous sands formed as beach deposits during the retreat of the Cretaceous ocean from the midsection of the United States. Alluvial deposits from flooding and lateral migration of the Arkansas and Ouachita Rivers typically lie above the bedrock. These sediments are sandy to clayey fluvial deposits of Holocene to late Pleistocene age and are many meters thick. The geologic surfaces are identified as the Arkansas Lowlands, which extend from the Yazoo Basin up the Arkansas River to the margin of the Coastal Plain, and the parts of the Tensas Basin west of Macon Ridge. The deposits on both of these surfaces are of Holocene age. In some areas late Pleistocene terrace deposits are within several meters of the present surfaces, but they do not crop out in the MLRA.

Soils

The dominant soil orders in this MLRA are Vertisols, Alfisols, Inceptisols, and Entisols. The soils in the area have a thermic soil

temperature regime. They dominantly have an aquic soil moisture regime, smectitic clay mineralog, and mixed sand and silt fraction mineralogy. They are very deep and generally are poorly drained to well-drained and loamy or clayey. Nearly level Epiaquerts (Perry series), Vertic Hapludolls (Desha series) and Vertic Epiaquepts (Portland series) dominate the Holocene-age alluvial flats and backswamps. Nearly level to gently sloping Eutrudepts (Coushatta series), Udifluvents (Roxana series), and Vertic Epiaquepts (Latanier series) dominate the recent Holocene-age natural levees. Nearly level to gently undulating, sandy Udifluvents (Bruno series) and Udipsamments (Crevasse series) dominate the recent Holoceneage levee splays and point bars. Nearly level to gently undulating Epiaqualfs (Hebert series), Hapludalfs (Rilla and Sterlington series) and Argiudolls (Caspiana series) dominate the Holocene-age natural levees along the older meander scars.

Biological Resources

This area once consisted entirely of bottomland hardwood deciduous forest and mixed hardwood and cypress swamps. The major tree species in the native plant communities in the areas of bottomland hardwoods formerly were and currently are water oak, Nuttall oak, cherrybark oak, native pecan, red maple, sweetgum, eastern cottonwood and hickory. The major tree species in the native plant communities in the swamps formerly were and currently are cypress, water tupelo, water oak, green ash, red maple and black willow. The important native understory species are palmetto, greenbrier, wild grape and poison ivy in the areas of bottomland hardwoods and buttonbush, lizardtail, waterlily, water hyacinth, sedges and rushes in the swamps. Some of the major wildlife species in this area are white-tailed deer, feral hogs, red fox, coyote, rabbit, gray squirrel, American alligator, water turtles, water snakes, frogs, otters, beavers, armadillo, crawfish, wild turkey, mourning doves, ducks and geese. Fishing is mainly in oxbow lakes, rivers and bayous. The species of fish in the area include largemouth bass, smallmouth bass, catfish, drum, bluegill, gar and yellow perch.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 70%

Grassland—private, 2%

Forest—private, 22%; Federal, 1%

Urban development—private, 1%

Water—private, 3%

Other—private, 1%

Farms and scattered tracts of forested wetlands make up nearly all of this area. The farms produce mainly cash crops. Cotton, soybeans, milo and corn are the main crops. In many areas furrow irrigation is used during droughty parts of the growing season. Throughout the area, catfish are produced commercially on farm ponds that are contained by levees. Migratory waterfowl are harvested throughout the area. Hardwood timber is harvested on some forested wetlands, and most forested areas are managed for wildlife. About 15 percent of this MLRA is not protected from flooding, and flooding occurs occasionally or frequently in these unprotected areas. Levees protect nearly all of the cropland from flooding. Most of the forested wetlands are not protected from flooding. Networks of drainage canals and ditches help to remove excess surface water from the cropland. The major resource concerns are control of surface water, management of soil moisture, and maintenance of the content of organic matter and productivity of the soils. Conservation practices on cropland generally include nutrient management, crop residue management and alternative tillage systems, especially no-till systems. In many areas land leveling or shaping optimizes the control of surface water. Other major cropland management practices are control of competing vegetation and insects through aerial or ground spraying of herbicides and insecticides and fertility management programs that make use of chemical fertilizers.

152A—Eastern Gulf Coast Flatwoods

Louisiana constitutes 8 percent of this MLRA and Hammond and Covington, LA. A number of national wildlife refuges, state parks and a few state forests are found in this MLRA.

Physiography

Almost all of this area is in the East Gulf Coastal Plain Section of the Coastal Plain Province of the Atlantic Plain. This MLRA is a nearly level, low coastal plain crossed by many large streams. Elevation ranges from sea level to 80 feet (0 to 25 meters). Local relief is generally 10 to 20 feet (3 to 6 meters).

Geology

Pleistocene-age terraces consisting of ancient Mississippi River deposits of unconsolidated fine sand, which grades to coarser sand and gravel at depth, are at the surface in the western end of this area in Louisiana. Recent silt, sand and gravel deposits fill the valleys along most of the major rivers in the area.

Soils

The dominant soil orders in this MLRA are Alfisols, Ultisols, Entisols, Spodosols and Histosols. The soils in the area dominantly have a thermic or hyperthermic soil temperature regime, an aquic or udic soil moisture regime and siliceous mineralogy. They generally are deep or very deep; are somewhat poorly drained to very poorly drained; and are loamy, mucky or sandy. Alaquods (Chaires and Leon series) and Psammaquents (Scranton series) formed in sandy marine sediments on flats and in depressions. Haplosaprists formed in organic deposits in swamps and depressions (Dorovan and Pamlico series) and in marshes and swamps (Lafitte and Maurepas series). Sulfihemists (Handsboro series) and Sulfaquents (Axis series) formed in saltwater and brackish water marshes. Quartzipsamments (Newhan and Corolla series) and Psammaquents (Duckston series) formed on dunes and in interdunal swales on barrier islands. Glossaqualfs (Guyton series) and Hydraquents (Arat and Levy series) formed in alluvium on flood plains. Endoaqualfs (Meadowbrook and Wekiva series) and Albaqualfs (Tooles series) formed in loamy marine sediments on flats and flood plains and in depressions. Endoaquults (Myatt series) and Paleudults (Stough series) formed in mixed fluvial and marine sediments on flats and stream terraces. Paleaquults (Plummer and Bayou series) and Paleudults (Escambia and Ocilla series) formed in loamy and sandy sediments on marine terraces.

Biological Resources

This area supports pine forest vegetation and freshwater, brackish water and saltwater marsh vegetation. Longleaf pine and slash pine are the major trees. Chalky bluestem, Indiangrass and several species of panicum make up the understory. Palmetto, gallberry and wax myrtle are the dominant woody shrubs. Roseau, common reed, bulltongue, maidencane, cut-grass and alligatorweed

characterize the freshwater and intermediate water vegetation. Marsh-hay cordgrass, salt grass and Olney bulrush characterize the brackish water vegetation. Salt grass, marsh-hay cordgrass, smooth cordgrass and black needlerush are included in the saltwater vegetation. Some of the major wildlife species in this area are white-tailed deer, feral hog, gray fox, red fox, bobcat, raccoon, skunk, opossum, otter, rabbit, squirrel, turkey, bobwhite quail and mourning dove. The species of fish in the area include largemouth bass, channel catfish, bullhead catfish, bluegill, redear sunfish, spotted sunfish, warmouth, black crappie, chain pickerel, gar, bowfin, sucker, spotted trout, croaker, striped mullet, flounder and red drum.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 1.3%

Grassland—private, 1.9%

Forest—private, 55.6%; Federal, 11.5%

Urban development—private, 10.4%

Water—private, 12.0%; Federal, 3.0%

Other—private, 4.3%

Very little of this dominantly forested area is farmland. Much of it is in large holdings owned by pulp and paper companies. Pulpwood and lumber are the principal forest products. Some of the forestland is grazed. Some areas are in state and national forests or are used as game refuges or as military training sites. Only a very small acreage is cropped or pastured. Corn, peanuts, tobacco and soybeans are the major crops. The major soil resource concerns are water erosion, maintenance of the content of organic matter and productivity of the soils, surface compaction and management of soil moisture. Conservation practices on forestland generally include forest stand improvement, forest trails and landings, prescribed burning, riparian forest buffers, forest site preparation, bedding, establishment of trees and shrubs and management of upland wildlife habitat. The most important conservation practice on pasture is prescribed grazing. Overseeding of pastures with small grains and/or legumes during winter commonly supplements forage production. Haying also provides additional feed during the long winters. Conservation practices on cropland generally include systems of crop residue management, cover crops, crop rotations, water disposal, subsoiling or deep tillage, pest management and nutrient management. Critically eroding areas and areas where animals congregate must be monitored regularly and treated promptly.

151—Gulf Coast Marsh

Louisiana constitutes 95 percent of this MLRA, including the towns of Gretna, Chalmette, Marrero and New Orleans. Interstate 10 and U.S. Highway 90 cross the area. The New Orleans Naval Air Station is in this MLRA. A number of national wildlife refuges and state parks are situated in this area.

Physiography

Vermilion Bay splits this area into an eastern half and a western half. The eastern half is in the Mississippi Alluvial Plain Section of the Coastal Plain Province of the Atlantic Plain. The western half is in the West Gulf Coastal Plain Section of the same province and division. The land east of Vermilion Bay, part of the Mississippi River Delta, has a ragged shoreline. The land west of Vermilion Bay has a smoother shoreline. Low, narrow sandy ridges characterize much of the area. Many rivers, lakes, bayous, tidal channels and manmade canals are in the area. Elevation generally ranges from sea level to about 7 feet (2 meters). It is as much as 10 feet (3 meters) on beach ridges, canal spoil banks and natural levees, and it rises to 165 feet (50 meters) on salt dome islands. Some areas that are protected by levees have subsided below sea level.

Geology

The surface of this area is primarily Mississippi River clay, silt and fine sand deposited over the past 2 million years. The eastern half of the area, part of the Mississippi River Delta, is underlain by a mixture of Recent alluvial material and Pleistocene-age marine sediments. The area west of Vermilion Bay is underlain by older alluvial and marine sediments. Salt domes, natural gas and petroleum deposits are below the surface in this area.

Soils

The dominant soil orders in this MLRA are Entisols and Histosols. The soils in the area dominantly have a hyperthermic soil temperature regime, an aquic soil moisture regime and smectitic mineralogy. They generally are very deep, very poorly drained and clayey. Hydraquents (Bancker, Creole, Larose and Scatlake series) formed in clayey sediments in coastal marshes. Haplosaprists formed in organic deposits over alluvium (Allemands, Clovelly and Lafitte series) or entirely in organic deposits (Kenner and Timbalier series).

Biological Resources

This area supports freshwater and saltwater marsh vegetation consisting of grasses, sedges, rushes and other plants. Alligatorweed, spikerush, maidencane, cut-grass, and bulltongue characterize the freshwater vegetation. Roseau, common reed, bulltongue and marsh-hay cordgrass characterize the intermediate water vegetation. Marsh-hay cordgrass, salt grass and Olney bulrush characterize the brackish water vegetation. Salt grass, marsh-hay cordgrass, smooth cordgrass, and black needlerush are included in the saltwater vegetation. Some of the major wildlife species in this area are white-tailed deer, alligator, nutria, raccoon, otter, muskrat, swamp rabbit, cottontail rabbit, mink, mottled duck, bobwhite quail, mourning dove, meadowlark, lark bunting and crawfish.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 16%

Grassland—private, 6%

Forest—private, 8%

Urban development—private, 3%

Water—private, 33%

Other—private, 30%; Federal, 4%

Most of this area supports marsh vegetation and is used for wildlife habitat. The area is almost treeless. Much of the area is uninhabited. The area is in the fertile and productive estuarine complex that supports the marine life of the Gulf of Mexico. The area provides wintering ground for millions of migratory ducks and geese and habitat for many fur-bearing animals and for alligators. A significant acreage west of Vermilion Bay is firm enough to support livestock and is grazed by cattle in winter. A small acreage of freshwater marsh is drained by pumping systems and is used for pasture or for rice. The major resource concerns are determined

by land use and marsh type. Flooding is a major concern in New Orleans. The concerns in areas of native marsh include maintenance of the salinity level in the soils, ingress and egress of fresh water or salt water, and the content of organic matter in the soils. The concerns on pasture and cropland include maintenance of the content of organic matter and control of the salinity level in the soils. Erosion caused by overland water from high rainfall or a storm surge in the Gulf is a concern in areas where the native vegetation has been altered. Conservation practices on cropland include systems of crop residue management, which help to control erosion and maintain the content of organic matter in the soils. Timely tillage and planting can help to maintain tilth and the supply of soil moisture and control salinity. The practices on pasture include prescribed grazing, brush and pest management, prescribed burning and watering facilities. Management of upland and wetland wildlife habitat is needed.

150A—Gulf Coast Prairies

Louisiana constitutes 17 percent of this MLRA to include the towns of Crowley, Eunice and Lake Charles. Interstate 10 and highways 90 and 190 are in the eastern part, in Louisiana.

Physiography

This area is in the West Gulf Coastal Plain Section of the Coastal Plain Province of the Atlantic Plain. It is characterized by nearly level plains that have low local relief and are dissected by rivers and streams that flow toward the Gulf of Mexico. Elevation ranges from sea level to about 165 feet (0 to 50 meters) along the interior margin.

Geology

This area is mostly a strip of land that is about 50 to 80 miles (80 to 130 kilometers) wide and runs along the Gulf of Mexico. The sedimentary rocks at the surface are of Pleistocene age. They were laid down during the last 2 million years. The deposits are deltaic and lagoonal clays and loams derived from older rocks to the west. At the western edge of this area, mostly within Texas, the sediments are older and more weathered and contain more sands. At the eastern edge, mostly within Louisiana, a cap of mixed loess and alluvium occurs on most soils. The loess was derived from the flood plain along the Mississippi River. Some Tertiary deposits occur along the interior edge of this MLRA. The weight of the recent deposits has caused them to tilt towards the Gulf of Mexico, so successively older deposits crop out from the coastal edge to the interior edge of the area. Salt domes, natural gas and petroleum deposits are commonly below the surface throughout this area. Recent deposits of alluvial sand fill the valleys of the Brazos and Trinity Rivers and the other large rivers in the area.

Soils

The dominant soil orders in this MLRA are Alfisols, Mollisols and Vertisols. The soils have a hyperthermic soil temperature regime in the southwestern part of the area and a thermic soil temperature regime in the northeastern part. The soils in the MLRA generally have an ustic soil moisture regime and smectitic mineralogy. Drainage ranges from well-drained in very gently sloping and gently sloping soils in convex areas to very poorly drained in soils in enclosed depressions. Soils that formed in early Pleistocene sediments, generally occurring north of Interstate 10, are very deep and have a loamy surface layer and subsoil and siliceous mineralogy. Soils that formed in late Pleistocene sediments, generally occurring south of Interstate 10, are very deep and have a loamy or clayey surface layer and a clayey, very slowly permeable subsoil. Aqualfs and Udalfs (Crowley, Aris and Vidrine series) are dominant in Louisiana. Uderts and Udalfs (League, Lake Charles, Laewest, Hockley, Katy and Telferner series) are dominant in the eastern and central parts of the area. Usterts and Ustolls (Banquete, Cranell, Orelia, and Victoria series) are dominant in the western and southwestern parts.

Biological Resources

This area was originally a natural grass prairie with hardwood trees along the rivers and streams. Little bluestem, Indiangrass, switchgrass and big bluestem are the dominant species. A few groves of live oak dot the landscape. Some of the major wildlife species are white-tailed deer, raccoon, opossum, rabbit, fox, coyote, squirrel, armadillo, nutria, quail and mourning dove. Migratory waterfowl, such as ducks and geese, and neotropical migratory songbirds winter in this area. The species of fish in the area include bass, channel catfish and bream.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 32%

Grassland—private, 39%; Federal, 1%

Forest—private, 5%

Urban development—private, 16%

Water—private, 5%

Other—private, 2%

Most of this area is in farms. Rice, soybeans, grain sorghum, cotton, corn and hay are the chief crops. About two-fifths of the area is rangeland or pasture. The forested areas, consisting chiefly of hardwoods, border the rivers and streams that cross the MLRA. Urban development is rapidly expanding onto agricultural land throughout the area.

The major soil resource concerns are wind erosion, water erosion, maintenance of the content of organic matter and tilth of the soils and management of soil moisture. Increasing salinity is a problem in some areas. Conservation practices on cropland generally include systems of crop residue management, which help to control erosion and maintain the content of organic matter in the soils. Timely tillage and planting can help maintain tilth and the supply of soil moisture. Conservation practices on pasture and rangeland generally include prescribed grazing, fences, watering facilities and nutrient and pest management.

131C—Red River Alluvium

Louisiana constitutes 86 percent of this MLRA to include the eastern half of the city of Shreveport and the towns of Alexandria and Bossier City. Interstate 20 crosses this area and intersects Interstate 49 in Shreveport. Small areas of the Kisatchie National Forest are along the southwest edge of this MLRA.

Physiography

Almost all of this area is in the West Gulf Coastal Plain Section of the Coastal Plain Province of the Atlantic Plain. The southern end is in the Mississippi Alluvial Plain Section of the same province and division. This MLRA is on the alluvial plain along the lower Red River in Louisiana. The landforms in the area are level or depressional to very gently undulating alluvial plains, backswamps, oxbows, natural levees and terraces. Landform shapes range from

convex on natural levees and undulating terraces to concave in oxbows. Landform shapes differentiate water-shedding positions from water-receiving positions, both of which have a major effect on soil formation and hydrology. Average elevations start at about 40 feet (12 meters) in the southern part of the area and gradually rise to about 270 feet (80 meters) in the northwestern part. Maximum local relief is about 10 feet (3 meters), but relief is considerably lower in most of the area.

Geology

Bedrock in this area consists of Tertiary and Cretaceous sands formed as beach deposits during the retreat of the Cretaceous ocean from the midsection of the United States. Alluvial deposits from flooding and lateral migration of the Red River typically lie above the bedrock. These sediments are sandy to clayey fluvial deposits of Holocene to late Pleistocene age and are many meters thick. In some areas late Pleistocene terrace deposits are within several meters of the present surfaces, but they do not crop out in this MLRA. The geologic history of the area is greatly influenced by a large logjam that formed in the Red River channel in the middle part of the area during the late 18th century and the early 19th century. At the time of its largest extent, the logjam obstructed the river and its tributary outlets for a distance of 160 miles downstream from the Arkansas State boundary. Backwater flooding, reformation of natural levees, and crevasse splays caused by this logjam played a major role in covering large parts of the area with a mantle of recent clayey to sandy material. Destruction of the logjam in the late 1800s resulted in the drainage of many large lakes that had formed.

Soils

The dominant soil orders in this MLRA are Vertisols, Entisols, Inceptisols and Alfisols. The soils in the area have a thermic soil temperature regime. They dominantly have an aquic soil moisture regime, smectitic clay mineralogy and mixed sand and silt fraction mineralogy. They are very deep and generally are poorly drained to moderately well-drained and loamy or clayey. Nearly level Epiaquerts (Moreland series) and Vertic Endoaquepts (Yorktown series) dominate the Holoceneage alluvial flats and backswamps. Nearly level to gently sloping Endoaquepts (Coushatta series), Udifluvents (Severn and Roxana series) and Vertic Epiaquepts (Latanier series) dominate the Holocene-age natural levees. Nearly level to gently undulating, coarse-silty over clayey Udifluvents (Caplis series) and sandy Udifluvents (Kiomatia series) dominate the Holocene-age levee splays and point bars. Nearly level to gently undulating Hapludalfs (Gallion and Rilla series) and Argiudolls (Caspiana series) dominate the Holocene-age natural levees along the older meander scars.

Biological Resources

This area once consisted entirely of bottomland hardwood deciduous forest and mixed hardwood and cypress swamps. The major tree species in the native plant communities in the areas of bottomland hardwoods formerly were and currently are water oak, Nuttall oak, cherrybark oak, native pecan, red maple, sweetgum, eastern cottonwood and hickory. The major tree species in the native plant communities in the swamps formerly were and currently are cypress, water tupelo, water oak, green ash, red maple and black willow. The important native understory species are palmetto, greenbrier, wild grape and poison ivy in the areas of bottomland hardwoods and buttonbush, lizardtail, waterlily, water hyacinth, sedges and rushes in the swamps. Some of the major wildlife species in this area are white-tailed deer, feral hogs, red fox, coyote, rabbit, gray squirrel, American alligator, water turtles, water snakes, frogs, otters, beavers, armadillo, crawfish, wild turkey, mourning doves, ducks and geese. Fishing is mainly in oxbow lakes, rivers and bayous. The species of fish in the area include largemouth bass, smallmouth bass, catfish, drum, bluegill, gar and yellow perch.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 37%

Grassland—private, 20%

Forest—private, 30%; Federal, 1%

Urban development—private, 5%

Water—private, 5%

Other—private, 2%

Farms and scattered tracts of forested wetlands make up nearly all of this area. The farms produce mainly cash crops. Cotton, soybeans, milo and corn are the main crops. Sugarcane is a major crop in the southernmost part of the area. In many areas furrow irrigation is used during droughty parts of the growing season. Throughout the area, catfish are produced commercially on farm ponds that are contained by levees. Migratory waterfowl are harvested throughout the area. Hardwood timber is harvested on some forested wetlands, and most forested areas are managed for wildlife. About 22 percent of this MLRA is not protected from flooding, and flooding occurs occasionally or frequently. Levees protect nearly all of the cropland from flooding. Most of the forested wetlands are not protected from flooding. Networks of drainage canals and ditches help to remove excess surface water from the cropland. The major resource concerns are control of surface water, management of soil moisture, and maintenance of the content of organic matter and productivity of the soils. Conservation practices on cropland generally include nutrient management, crop residue management and alternative tillage systems, especially no-till systems. In many areas, land-leveling or shaping optimizes the control of surface water. Other major cropland management practices are control of competing vegetation and insects through aerial or ground spraying of herbicides and insecticides and fertility management programs that make use of chemical fertilizers.

133A—Southern Coastal Plain

Louisiana constitutes a mere 1% of this MLRA near the town of Bogalusa, in the extreme eastern part of the state.

Physiography

This area extends from Virginia to Louisiana and Mississippi, but it is almost entirely within three sections of the Coastal Plain Province of the Atlantic Plain. The northern part is in the Embayed Section, the middle part is in the Sea Island Section, and the southern part is in the East Gulf Coastal Plain Section. This MLRA is strongly dissected into nearly level and gently undulating valleys and gently sloping to steep uplands. Stream valleys generally are narrow in their upper reaches but become broad and have widely meandering stream channels as they approach the coast. Elevation ranges from 80 to 655 feet (25 to 200 meters), increasing gradually from the lower Coastal Plain northward. Local relief is mainly 10 to 20 feet (3 to 6 meters), but it is 80 to 165 feet

(25 to 50 meters) in some of the more deeply dissected areas.

Geology

This MLRA is bordered on the west and north by the "fall line." This line of waterfalls marks the western and northern extent of the unconsolidated Coastal Plain sediments. It is an erosional scarp formed when this area was the Atlantic Ocean shore in Mesozoic time. The MLRA is underlain by eroded igneous and metamorphic bedrock. Rivers and streams draining the Appalachians deposited a thick wedge of silt, sand and gravel east and south of the fall line as delta deposits in the Atlantic Ocean. These Jurassic and Cretaceous river sediments were eventually exposed as the Coastal Plain uplifted and the sea level changed. When the sea level rose again, the Coastal Plain was submerged and covered by a thin layer of Cretaceous sands in the eastern half of the area. In the western part of the area, the water was deeper and limestone, dolomite and calcareous sands were deposited. As the Coastal Plain continued to uplift and the sea level dropped again, Quaternary material consisting of unconsolidated clay, silt, sand and gravel was deposited over the Tertiary sand and carbonates. Subsequent changes in the sea level created terraces in these younger deposits along many of the streams and rivers draining this area. Much of the MLRA has a "benched" appearance because of the cycles of erosion and deposition that occurred as the area was exposed and submerged numerous times in its geologic history.

Soils

The dominant soil orders in this MLRA are Ultisols, Entisols and Inceptisols. The soils in the area dominantly have a thermic soil temperature regime, a udic or aquic soil moisture regime and siliceous or kaolinitic mineralogy. They generally are very deep, somewhat excessively drained to poorly drained and loamy. Hapludults formed in marine sediments (Luverne and Sweatman series) and mixed marine sediments and alluvium (Smithdale series) on hills and ridges. Kandiudults formed in marine sediments (Dothan, Fuquay, Norfolk and Orangeburg series) and mixed marine and fluvial sediments (Troup series) on hills and ridges. Fragiudults (Ora and Savannah series) and Paleudults (Ruston series) formed in mixed marine and fluvial sediments on uplands and stream terraces. Fluvaquents (Bibb series) and Endoaquepts (Mantachie series) formed in alluvium on flood plains. Quartzipsamments (Lakeland series) formed in sandy eolian or marine material on uplands. Paleaquults (Rains series) formed in marine and fluvial sediments on terraces.

Biological Resources

This area supports mixed oak-pine vegetation. Loblolly pine, longleaf pine, slash pine, shortleaf pine, sweetgum, yellow poplar, red oak and white oak are the major overstory species. Dogwood, gallberry, and farkleberry are the major understory species. Common sweetleaf, American holly, greenbrier, southern bayberry, little bluestem, Elliott bluestem, threeawn, grassleaf goldaster, native lespedezas and low panicums are other understory species. Some of the major wildlife species in this area are white-tailed deer, turkey, rabbit, squirrel, bobwhite quail, and mourning dove. The species of fish in the area include bass, bluegill and channel catfish.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 17%

Grassland—private, 8%

Forest—private, 61%; Federal, 3%

Urban development—private, 6%

Water—private, 3%

Other—private, 2%

Timber production, cash-grain crops and forage production are important in this MLRA. Soybeans, cotton, corn and wheat are the major crops grown throughout the area. Pastures are grazed mainly by beef cattle, but some dairy cattle and hogs are raised in the area. The major resource concerns are water erosion, maintenance of the content of organic matter and productivity of the soils, control of surface water, artificial drainage and management of surface compaction and soil moisture. Conservation practices on cropland generally include systems of crop residue management, cover crops, crop rotations, water disposal, subsoiling or deep tillage, pest management and nutrient management. The most important conservation practice in pastured areas is prescribed grazing. Pastures commonly are overseeded with small grains and/or legumes to supplement forage production during winter. Haying also helps to provide supplemental feed during the long winters. Critically eroding areas and areas where animals congregate should be monitored and treated.

131A—Southern Mississippi River Alluvium

Louisiana constitutes 32 percent of this MLRA including the towns of Lake Providence, Morgan City and Houma. Baton Rouge and New Orleans are just outside this area. Parts of Interstates 10 and 20 cross this MLRA.

Physiography

This area makes up most of the Mississippi Alluvial Plain Section of the Coastal Plain Province of the Atlantic Plain. It is on the alluvial plain along the lower Mississippi River, south of its confluence with the Ohio River. The landforms in the area are level or depressional to very gently undulating alluvial plains, backswamps, oxbows, natural levees and terraces. The parts of the MLRA south of Baton Rouge are on a deltaic plain. Landform shapes range from convex on natural levees and undulating terraces to concave in oxbows. These shapes differentiate water-shedding positions from water receiving positions, both of which have a major role in soil formation and hydrology. Average elevations start at sea level in the southern part of the area and gradually rise to about 330 feet (100 meters) in the northwestern part. Maximum local relief is about 15 feet (5 meters), but relief is considerably lower in most of the area.

Geology

Bedrock in this area consists of Tertiary and Cretaceous sands formed as beach deposits during the retreat of the Cretaceous ocean from the midsection of the United States. Alluvial deposits from flooding and lateral migration of the Mississippi River typically lie above the bedrock. These sediments are sandy to clayey fluvial deposits of Quaternary age and are many meters thick. The Yazoo, Tensas and Atchafalaya Basins and the modern deltaic plain are in areas of Holocene deposits. The St. Francis Basin, in the northwestern part of the MLRA, and some surfaces surrounded by the Yazoo Basin, in the central part of the MLRA, are in areas of Wisconsin Stage deposits of Pleistocene age. Some small areas in the western part of the MLRA are covered by a thin mantle of pre-Wisconsin, Quaternary-age loess deposits.

Soils

The dominant soil orders in this MLRA are Alfisols, Vertisols, Inceptisols and Entisols. The soil temperature regime is thermic in most of the MLRA. It is hyperthermic, however, south of Baton Rouge. The soils in the MLRA dominantly have an aquic soil moisture regime, smectitic clay mineralogy and mixed sand and silt fraction mineralogy. The soils are very deep, dominantly poorly drained and somewhat poorly drained, and dominantly loamy or clayey. Nearly level Epiaquerts (Sharkey series), Vertic Epiaquepts (Tunica series), and Vertic Endoaquepts (Dowling series) dominate the alluvial flats and backswamps of Holocene to late Pleistocene age. Nearly level to gently sloping Endoaquepts (Commerce series), Udifluvents (Robinsonville series) and Fluvaquents (Convent series) dominate the natural levees of Holocene age. Nearly level to gently undulating, sandy Udifluvents (Bruno series) and Udipsamments (Crevasse series) dominate the levee splays and point bars of Holocene age. Nearly level to gently undulating Endoaqualfs (Dundee series), Hapludalfs (Dubbs series), and Epiaqualfs (Tensas series) dominate the terraces of Pleistocene age.

Biological Resources

This area once consisted entirely of bottomland hardwood deciduous forests and mixed hardwood and cypress swamps. The major tree species in the native plant communities in the areas of bottomland hardwoods formerly were and currently are water oak, Nuttall oak, cherrybark oak, native pecan, red maple, sweetgum, eastern cottonwood and hickory. The major tree species in the native plant communities in the swamps formerly were and currently are cypress, water tupelo, water oak, green ash, red maple and black willow. The important native understory species are palmetto, greenbrier, wild grape and poison ivy in the areas of bottomland hardwoods and buttonbush, lizardtail, waterlily, water hyacinth, sedges and rushes in the swamps. Some of the major wildlife species in this area are white-tailed deer, feral hogs, red fox, coyote, rabbit, gray squirrel, American alligator, water turtles, water snakes, frogs, otters, beavers, armadillo, crawfish, wild turkey, mourning doves, ducks and geese. Fishing is mainly in oxbow lakes, rivers and bayous. The species of fish in the area include largemouth bass, smallmouth bass, catfish, drum, bluegill, gar and yellow perch. Crawfish are a commercial species in the southern end of this MLRA.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 70%

Grassland—private, 2%

Forest—private, 15%; Federal, 3%

Urban development—private, 3%

Water—private, 6%

Other—private, 1%

Most of this area is in farms, which produce mainly cash crops. Cotton, soybeans, milo and corn are the main crops, and sugarcane is a major crop in the southernmost part of the area. Furrow irrigation is used in many areas during droughty parts of the growing season. Rice is grown in some land-leveled, flood-irrigated areas. Catfish and crawfish are produced commercially on farm ponds that are contained by levees. The catfish are produced throughout the MLRA, and the crawfish are produced in the southern part of the area. Migratory waterfowl are harvested throughout the area. Hardwood timber is harvested on most forested wetlands, and most of the forested areas are managed for wildlife. About 29 percent of this MLRA is not protected from flooding, and flooding occurs occasionally or frequently in these unprotected areas. Levees protect nearly all of the cropland, urban land and grassland from flooding. Most areas of forested wetlands are not protected from flooding. Networks of drainage canals and ditches help remove excess surface water from the cropland. The major resource concerns are control of surface water, management of soil moisture and maintenance of the content of organic matter and productivity of the soils. Conservation practices on cropland generally include nutrient management, crop residue management and alternative tillage systems, especially no-till systems that reduce the cost of tillage. In many areas, land-leveling or shaping optimizes the control of surface water. Other major cropland management practices are control of competing vegetation and insects through aerial or ground spraying and fertility management programs that make use of chemical fertilizers.

131D—Southern Mississippi River Terraces

Louisiana constitutes 12 percent of this MLRA, including the town of Bastrop.

Physiography

This MLRA is in the Mississippi Alluvial Plain Section of the Coastal Plain Province of the Atlantic Plain. It consists dominantly of Pleistocene-age, level to gently sloping terraces along the Mississippi River. Slopes generally range from level to gently sloping but are steep along terrace escarpments. Channel scars are evident in some areas. Elevation is generally 50 to 250 feet (15 to 75 meters) on the terraces.

Geology

Bedrock in this area consists of Tertiary and Cretaceous sands formed as beach deposits during the retreat of the Cretaceous ocean from the midsection of the United States. Alluvial deposits from flooding and lateral migration of the rivers crossing this area typically lie above the bedrock. These sediments form Pleistocene-age alluvial terraces. Silty alluvium underlies most of the area. Clayey sediments are in old channel scars. The Pleistocene terraces are part of the Prairie Terrace complex. A minor portion of the area is in the Deweyville and Montgomery terrace formation. These terraces have a base of red alluvium capped by one to several meters of brownish alluvium.

Soils

The dominant soils in this MLRA are Alfisols. They have a thermic soil temperature regime, an ustic or aquic soil moisture regime, and mixed mineralogy. They are very deep and formed dominantly in silty alluvium. They generally are moderately well-drained to poorly drained. Gently sloping Hapludalfs (Goodwill series) are on natural levees and low terraces. Gently sloping to level Hapludalfs (Immanuel and Stuttgart series) and Fraglossudalfs (Grenada series) are on broad interfluves and along terrace escarpments. Level Endoaqualfs (Idee series), Albaqualfs (Dewitt series), Glossaqualfs (Ethel series), Epiaqualfs (Lagrue) and Fragiaqualfs (Henry series) are on low terraces and natural levees. Nearly level and level Endoaqualfs (Tichnor and Forestdale series) are on low terraces, natural levees and flood plains. Nearly level Dystrudepts (Oaklimeter series) are along drainageways and on flood plains.

Biological Resources

This area supports hardwoods and pines. The Grand Prairie area, in Arkansas, originally supported tall prairie grasses interlaced with hardwood timber. Cherrybark and Shumard oak are widely distributed. Yellow poplar, white ash, cottonwood and black walnut are important species on the flood plains. Loblolly pine and shortleaf pine are on a wide variety of sites, mainly the eroded soils on uplands and ridges. Other hardwood species that commonly grow in this area are white oak, basswood, sweetgum, water oak, American elm, blackgum, sycamore, sassafras, southern red oak, chinkapin oak, American beech and hickory. Some of the major wildlife species in this area are white-tailed deer, coyote, bobcat, beaver, raccoon, skunk, armadillo, mink, cottontail, turkey, mourning dove, ducks and geese. The species of fish in the area include channel catfish, largemouth black bass, crappie and bluegill.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 42%

Grassland—private, 4%

Forest—private, 46%; Federal, 1%

Urban development—private, 3%

Water—private, 3%

Other—private, 1%

Scattered tracts of forests and farms make up nearly all of this area. Rice, soybeans and wheat are the main crops. In most areas, furrow or flood irrigation is used throughout the growing season. Hardwood timber is harvested on some forested wetlands and most forested areas are managed for wildlife. Bait fish are produced commercially in ponds that are contained by levees. Migratory waterfowl are harvested throughout the area. The major soil resource concerns are management of soil moisture, erosion control and maintenance of the content of organic matter and productivity of the soils. Depletion of ground water through excessive pumping is a major concern in the Grand Prairie area. Conservation practices on cropland generally include nutrient management, crop residue management and alternative tillage systems, especially no-till systems that reduce the need for tillage. In many areas, land leveling or shaping optimizes the control of surface water. Other major cropland management practices are control of competing vegetation and insects through aerial or ground spraying of herbicides and insecticides and fertility management programs that make use of chemical fertilizers.

134—Southern Mississippi Valley Loess

Louisiana constitutes 15 percent of soils in this MLRA in three separate areas: 1) Opelousas, Lafayette and New Iberia; 2) Winnsboro, Epps and Mangham; and 3) Baton Rouge, Clinton and Livingston. Interstates 49 and 10 cross the area.

Physiography

This area is in the Coastal Plain Province of the Atlantic Plain. Most of the part of the area east of the Mississippi River is in the East Gulf Coastal Plain Section of the province. Parts of the western edge of the area, the part of the area in Arkansas, and the isolated part in northern Louisiana, are in the Mississippi Alluvial Plain Section. The farthest southwest part in Louisiana is in the West Gulf Coastal Plain Section. The sharply dissected plains in this MLRA have a loess mantle that is thick at the valley wall and thins rapidly as distance from the valley wall increases. Valley sides are hilly to steep, especially in the western part of the area. The intervening ridges generally are narrow and rolling, but some of the interfluves between the upper reaches of the valleys are broad and flat. Stream valleys are narrow in the upper reaches but broaden rapidly downstream and have wide, flat flood plains and meandering stream channels. Elevation ranges from 80 to 600 feet (25 to 185 meters). Local relief is mainly 10 to 20 feet (3 to 6 meters), but it can be 80 to 165 feet (25 to 50 meters).

Geology

This area is mantled with loess, which varies in thickness. The area is underlain by unconsolidated sand, silt and clay, mainly of marine origin. Crowley's Ridge is underlain by Pliocene sand and gravel. The seas extended up the present-day valley of the Mississippi River in Tertiary time, when these sediments were deposited by rivers draining the surrounding uplands. Throughout Quaternary and Recent time, the valley floor received fine-grained sediments each time the Mississippi River flooded. After these sediments dried, winds picked them up and deposited them as loess in the higher areas on each side of the valley. Five known periods of loess deposition are in the area. The surface deposit is the Peoria Loess, which is of Late Wisconsin age (about 10,000 years ago). Pre-Peorian Loess, which is of Middle Wisconsin age (about 20,000 to 40,000 years ago), occurs in some areas. This loess is thinner than the Peorian Loess and is generally redder or darker. Loveland-Sicily Island Loess, which is of pre-Wisconsin age (85,000 to 130,000 years ago), is at the surface in some areas in the southern part of this MLRA. It has a well-developed reddish paleosol (buried soil). Two other loess deposits have been described on Crowley's Ridge. They have been identified as Marianna Loess and Crowley's Ridge Loess. These deposits are not exposed at the surface. They have well-developed paleosols.

Soils

The dominant soil orders in this MLRA are Alfisols, Entisols, Inceptisols and Ultisols. The soils in the area are very deep or deep, are medium-textured and have a thermic soil temperature regime, a udic soil moisture regime and mixed mineralogy. Well-drained, nearly level to very steep Hapludalfs (Memphis series) are on uplands. Nearly level to steep, well-drained Hapludalfs (Memphis, Coteau and Feliciana series), moderately well-drained and somewhat poorly drained Fraglossudalfs (Olivier, Grenada and Calloway series), moderately well-drained Fragiudalfs (Loring series) and well-drained Eutrudepts (Natchez series) formed in thick deposits of loess. Nearly level to gently sloping, somewhat poorly drained Epiaqualfs (Patoutville series), moderately well-drained Fragiudults (Gigger, Toula and Tangi series), well -rained to somewhat poorly drained Hapludalfs (Colyell and Dexter series) and well-drained Paleudults (Lytle series) formed in deposits of loess 2 to 4 feet (1 meter) thick. Nearly level and very gently sloping, somewhat poorly drained and poorly drained Glossaqualfs (Calhoun, Encrow, and Frost series), somewhat poorly drained Glossudalfs (Egypt series), somewhat poorly drained Hapludalfs (Satsuma series) and somewhat poorly drained Argiaquolls (Jeanerette series) formed in a thin mantle of loess over loamy alluvium or mixed loess and loamy alluvium. Deep, gently sloping, well-drained Eutrudepts (Weyanoke series), somewhat poorly drained Fragiudults (Bude series) and somewhat poorly drained Fraglossudalfs (Fluker series) formed in silty material or in a mantle of loess and the underlying late Pleistocene

loamy terrace material. In the eastern part of the area, where the loess mantle thins, well-drained Paleudalfs (Lexington series), moderately well-drained Fragiudalfs (Dulac and Providence series), well-drained Hapludults (Brandon and Silerton series) and well-drained Paleudults (Smithdale series), all of which are gently sloping to steep, are on ridgetops and side slopes. Well-drained Dystrudepts (Ariel series), moderately well-drained Udifluvents (Collins series), moderately well-drained Dystrudepts (Oaklimeter series) and somewhat poorly drained Fluvaquents (Gillsburg series) are on flood plains.

Biological Resources

This area supports hardwood-pine vegetation. Cherrybark oak, Shumard oak, white oak, post oak, southern red oak and southern magnolia are widely distributed. Loblolly pine and shortleaf pine are the dominant pines. Yellow poplar, white ash, swamp chestnut, cottonwood, sweetgum, and black walnut are important species on the flood plains. Loblolly pine and shortleaf pine are on a wide variety of sites, mainly the eroded soils on uplands and ridges. Other hardwood species that commonly grow in this area are white oak, basswood, sweetgum, water oak, American elm, blackgum, sycamore, sassafras, southern red oak, chinkapin oak, American beech and hickory. Beech-magnolia-holly forests are dominant on narrow ridges and in steep ravines in the Tunica Hills of Louisiana. Some of the major wildlife species in this area are white-tailed deer, red fox, gray fox, raccoon, opossum, skunk, muskrat, cottontail, gray squirrel, fox squirrel, bobwhite quail and mourning dove. The species of fish in the area include largemouth bass, bluegill and bullhead.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 36%

Grassland—private, 13%

Forest—private, 38%; Federal, 2%

Urban development—private, 7%

Water—private, 2%

Other—private, 2%

Most of this area is in farms. A small acreage is federally owned. About one-third of the area is cropland, but the proportion varies greatly from county to county, depending on the soils and the topography. This is largely a cash-crop area. Cotton, corn, rice, soybeans and wheat are the major crops. Strawberries are important in Louisiana. Feed grains and forage are grown on dairy farms. Less than 15 percent of the area is pasture or hayland. About two-fifths is forest of mixed pine and hardwoods. Lumber is the major forest product, and some pulpwood is harvested. The present trend is toward the conversion of pasture and forest to cropland. Some areas are used for urban development, which is expanding near the metropolitan areas. The major soil resource concerns are water erosion, maintenance of the content of organic matter and productivity of the soils and management of soil moisture. Water erosion is a hazard in sloping areas that are bare because of tree harvesting. Conservation practices on forestland generally include systems of tree residue management and reforestation. Conservation practices on cropland generally include crop residue management, which increases the content of organic matter in the soils, and applications of lime in areas of low pH. Many of the soils remain wet or have a high water table for some or most of the year. Measures that improve drainage should be applied, or the crops adapted to the wet conditions should be selected for planting.

133B—Western Coastal Plain

Louisiana constitutes 31 percent of this MLRA and includes Minden, Ruston, Mansfield, Leesville and Shreveport. The area includes parts of Interstates 20 and 49.

Physiography

This area is in the West Gulf Coastal Plain Section of the Coastal Plain Province of the Atlantic Plain. It consists of level to steep uplands that are intricately dissected by streams. Broad flood plains and terraces are along some streams. Elevation ranges from 80 to 650 feet (25 to 200 meters), increasing gradually from southeast to northwest. Local relief is generally less than 30 feet (9 meters).

Geology

Tertiary and Cretaceous marine sediments underlie most of this area. Tertiary units include the Wilcox and Midway Groups, the Claiborne Group, the Jackson Group, the Catahoula Formation and the Willis Formation. They consist of interbedded sandstone, siltstone and shale and unconsolidated sands, silts and clays. The Reklaw and Weches Formations in the Claiborne Group form the Redland area in east Texas. The Cretaceous marine sediments of the Fleming and Oakville Formations are of minor extent in the area. They consist of calcareous clays and marls. Sand, silt and clay alluvium is under the flood plains and terraces along the major drainages.

Soils

The dominant soil orders in this MLRA are Alfisols and Ultisols. The soils in the area dominantly have a thermic soil temperature regime, a udic or aquic soil moisture regime and siliceous, mixed or smectitic mineralogy. They generally are very deep, well-drained to poorly drained and loamy or clayey. Hapludults formed in residuum (Cuthbert and Kirvin series) and marine sediments (Sacul series) on hills and ridges. Paleudults formed in marine sediments (Bowie and Malbis series) and mixed marine sediments and alluvium (Ruston series) on uplands. Endoaquults (Amy series) formed in old alluvium on stream terraces. Fragiudults (Savannah series) formed in mixed marine sediments and alluvium on uplands and stream terraces. Hapludalfs (Eastwood and Woodtell series) formed in marine sediments on hills and ridges. Glossaqualfs formed in alluvium on flood plains and stream terraces (Guyton series) and in old alluvium on stream terraces (Wrightsville series).

Biological Resources

This area supports pine-hardwood vegetation. The dominant trees are loblolly pine, shortleaf pine, sweetgum, southern red oak, white oak, flowering dogwood and post oak. American beautyberry, greenbrier, hawthorns and berry vines are included in the woody understory. Little bluestem and pinhole bluestem are the dominant herbaceous species. Other major grasses include beaked panicum, longleaf uniola, spike uniola and yellow Indiangrass. The plant community has many species of low-growing panicums and paspalums and perennial forbs. The major wildlife species in this area include white-tailed deer, coyote, beaver, raccoon, skunk, opossum, muskrat, mink, cottontail, squirrel, weasel, armadillo and mourning dove.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 2%

Grassland—private, 18%

Forest—private, 65%; Federal, 4%

Urban development—private, 6%

Water—private, 3%; Federal, 1%

Other—private, 1%

The forested areas in this MLRA are used for the production of lumber and pulpwood. The cleared land is used mostly for pasture and hay. Where the water supply is adequate, such crops as corn, grain sorghum, oats, soybeans, peanuts, rice and vegetables are grown. The major resource concerns are water erosion, wetland restoration and water supplies for livestock. Conservation practices on cropland generally include buffer strips, which help to control erosion and runoff. They also include the proper use and timing of irrigation.

152B—Western Gulf Coast Flatwoods

Louisiana constitutes 41 percent of this MLRA and includes Singer, Sulfur and Oberlin. Interstate 10 is just south of this area. The Sam Houston Jones State Park is in the Louisiana portion.

Physiography

This area is in the West Gulf Coastal Plain Section of the Coastal Plain Province of the Atlantic Plain. The area is nearly level to gently sloping and has low local relief. Elevation ranges from 80 to 330 feet (25 to 100 meters).

Geology

The entire area is underlain by unconsolidated clay, silt, sand and gravel deposited by ancient rivers in late Tertiary and Quaternary time. Recent silt, sand and gravel deposits fill the valleys along most of the major rivers in the area.

Soils

The dominant soil orders in this MLRA are Alfisols and Ultisols. The soils in the area dominantly have a thermic soil temperature regime, an aquic or udic soil moisture regime and siliceous or smectitic mineralogy. They generally are very deep, moderately well-drained to very poorly drained and loamy or clayey. Glossaqualfs formed in loamy and clayey sediments on stream terraces (Caddo and Evadale series), in loamy marine sediments on uplands (Waller series) and in alluvium on flood plains and stream terraces (Guyton series). Glossudalfs (Messer series) formed in loamy marine sediments on mounds and ridges. Vermaqualfs (Sorter series) formed in old alluvium on uplands. Hapluderts (Kaman series) formed in alluvium on flood plains. Paleudults (Kirbyville and Malbis series) formed in loamy marine sediments on uplands.

Biological Resources

This area supports pine-hardwood forest vegetation characterized by longleaf pine. Sweetgum, blackgum, post oak, blackjack oak and southern red oak are the principal hardwood species. Hawthorns, myrtle and shining sumac make up the woody understory. Mid-size and tall grasses dominate open areas. Little bluestem, pinhole bluestem, big bluestem, switchgrass and Indiangrass are the principal grasses. Longleaf uniola, Virginia wildrye, Florida paspalum, beaked panicum and several low-growing panicums and paspalums are the principal grasses in shady areas. Lespedezas, tickclover, wildbeans and several composites are the principal forbs in the area. Some of the major wildlife species in this area are white-tailed deer, coyote, fox, nutria, raccoon, skunk, cottontail, gray squirrel, fox squirrel, mink, armadillo, wood rat, white-footed mouse, eastern harvest mouse, cotton mouse, golden mouse, hispid cotton rat, hispid pocket mouse, marsh rice rat, turkey, quail and mourning dove. Other major species include cottonmouth moccasin, broad-banded water snake, coral snake, hognose snake, canebrake rattlesnake, pigmy rattlesnake, copperhead, Louisiana milk snake, speckled kingsnake, rough green snake, buttermilk snake, five-lined skink, broad-headed skink, green anole, smooth softshell turtle, three-toed box turtle, red-eared turtle, Mississippi mud turtle, marbled salamander, smallmouth salamander, Fowler's toad, East Texas toad, spring peeper, eastern tree toad, northern cricket frog, northern leopard frog and bullfrog. The species of fish in the area include spotted bass, largemouth bass, crappie, catfish, bullhead, carp and bluegill.

Land Use

Following are the various kinds of land use in this MLRA:

Cropland—private, 1%

Grassland—private, 12%; Federal, 1%

Forest—private, 74%; Federal, 3%

Urban development—private, 7%

Water—private, 1%

Other—private, 1%

The forestland in this area consists principally of pine and pine-hardwood forests. Much of the forested acreage is owned by large corporations, and lumber and pulpwood are the chief forest products. Cleared areas are used mostly for pasture. The major pasture grasses are Bahia grass and coastal Bermuda grass. Only a few small areas are used for crops. Many small subdivisions are being developed throughout the area, especially in the vicinity of Houston and Beaumont, Texas. The major soil resource concerns are water erosion, maintenance of the content of organic matter and productivity of the soils, and soil moisture management. When areas are bare after a tree harvest, water erosion is a hazard on sloping land. Conservation practices on forestland generally include forest stand improvement, forest trails and landings, prescribed burning, riparian forest buffers, forest site preparation, bedding, establishment of trees and shrubs, and management of upland wildlife habitat. The soils in this area are low in content of organic matter and productivity. Measures that increase the content of organic matter are needed. Applications of lime in areas of low pH help to maintain or improve productivity. Many of the soils remain wet or have a high water table for some or most of the time during the year. Measures that improve drainage or adapt the land use to the wet conditions are needed.

Soils of Louisiana

In 2008, 315 soil series were being used in Louisiana (Soil Survey Staff, 2008c) (Table 1). Among these series, 54 benchmark soil series were mapped in the state (Soil Survey Staff, 2008c). Benchmark soils occupy large extents, hold key positions in soil classification and are important in determining the properties and interpretations of soils in a large area (Soil Survey Staff, 1993).

The state soil of Louisiana is the Ruston series (fine-loamy, siliceous, semiactive, thermic Typic Paleudult). These soils cover 733,714 acres (296,924 ha) in Louisiana and largely support woodlands of pine and hardwood species. The official soil series description of the Ruston follows (Soil Survey Staff, 2008c).

The Ruston series consists of very deep, well-drained, moderately permeable soils that formed in loamy marine or stream deposits. These soils are on uplands of the Western and Southern Coastal Plains. Slopes range from 0 to 8 percent.

TYPICAL PEDON: *Ruston fine sandy loam – forest. (Colors are for moist soil.)*

A – *0 to 4 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak fine granular structure; friable; many coarse, medium and fine roots; very strongly acid; abrupt smooth boundary. (3 to 6 inches thick)*

E – *4 to 7 inches; pale brown (10YR 6/3) fine sandy loam; common medium faint light yellowish brown mottles; massive; firm; common fine and medium roots; few yellowish red (5YR 5/6) bodies of B horizon material in lower part; few channels filled with dark grayish brown (10YR 4/2) material; strongly acid; abrupt smooth boundary. (0 to 15 inches thick)*

Bt1 – *7 to 18 inches; red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; friable; few fine roots; few fine pores; common, distinct, continuous clay films on surfaces of peds and in pores; strongly acid; gradual wavy boundary.*

Bt2 – *18 to 26 inches; yellowish red (5YR 5/8) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; few fine pores; common, thin, patchy clay films on faces of peds and walls of pores; strongly acid; gradual wavy boundary. (Combined thickness of the Bt horizons is 10 to 40 inches)*

Bt/E – *26 to 39 inches; 70 percent yellowish red (5YR 5/6) and 30 percent light yellowish brown (10YR 6/4) fine sandy loam; weak coarse prismatic structure; friable; few fine roots; few fine pores; discontinuous bands of firm and brittle material up to 5 cm. thick make up 30 percent of horizon; common clay bridges between sand grains in Bt part; few red (2.5YR 4/8) sandy clay loam bodies of Bt material up to 7 cm in diameter; few black accumulations; strongly acid; gradual wavy boundary (4 to 20 inches thick)*

B't1 – *39 to 52 inches; red (2.5YR 4/8) fine sandy loam; few fine distinct dark yellowish brown (10YR 4/6) mottles; weak coarse prismatic strucutre parting to weak medium subangular blocky; firm; few fine roots; few fine pores; common, distinct, discontinuous red (2.5YR 4/6) clay films on ped surfaces and in pores; thin patches and streaks of pale brown (10YR 6/3) sand; few fine chert gravel; strongly acid; gradual wavy boundary.*

B't2 – *52 to 67 inches; red (2.5YR 5/8) sandy clay loam; weak coarse prismatic structure parting to weak medium subangular blocky; friable; few fine roots; few fine pores; common thin discontinuous distinct clay films on ped surfaces and in pores; few thin patches and streaks of pale brown (10YR 6/3) sand, few chert gravel up to 2 cm. in diameter; about 30 percent by volume firm and brittle material up to 10 cm. in diameter; very strongly acid; gradual wavy boundary.*

B't3 – *67 to 85 inches; red (2.5YR 5/8) fine sandy loam, weak coarse prismatic structure; friable; few fine roots; common thin distinct clay films on prism faces; few thin patches of light yellowish brown (10YR 6/4) sand; very strongly acid. (Combined thickness of the B't horizons is 10 to 50 inches)*

TYPE LOCATION: *Rapides Parish, Louisiana; approximately 3 miles northwest of Woodworth; 150 feet northeast of gravel road; NE1/4NE1/4 sec. 11, T. 2 N., R. 2 W. USGS Woodworth west topographic quadrangle; lat. 31 degrees 10 minutes 01.66 seconds N. and long. 92 degrees 32 minutes 14.19 seconds W.*

RANGE IN CHARACTERISTICS: *Solum thickness exceeds 60 inches. The Bt/E and B't horizons are definitive for the series. Calcium-magnesium ratios are variable in the Bt horizons, but typically are less than 1 in the B't horizons.*

The A horizon has hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 2 to 4. It is fine sandy loam, sandy loam, very fine sandy loam, loamy fine sand, gravelly fine sandy loam, or gravelly sandy loam. The A horizon ranges from very strongly acid to slightly acid.

The Ap horizon in severely eroded areas has colors and textures similar to the upper part of the Bt horizon.

The E horizon and E part of the Bt/E horizon have hue of 10YR, value of 5 or 6, and chroma of 3 or 4. Texture is fine sandy loam, loamy sand, or sandy loam and occurs in streaks and pockets that make up as much as 50 percent of the horizon. Small dark bodies that are compact and brittle make up as much as 10 percent by volume of the Bt/E horizon in some pedons.

A thin BA or BE horizon is in some pedons. The Bt, Bt part of the Bt/E, and B't horizons have hue of 5YR or 2.5YR, value of 4 to 6, and chroma of 4 to 8. They are sandy clay loam, fine sandy loam, loam or clay loam. The B't horizon, in most pedons is mottled with shades of gray, brown, red or yellow. Clay content of the Bt horizon averages between 18 and 30 percent in the upper 20 inches and the silt content ranges from 20 to 50 percent. The Bt and B't horizons are very strongly acid to medium acid. As much as 15 percent by volume of ironstone fragments or quartz gravel are present within the solum of some pedons. The clay content decreases from the upper Bt horizons to the Bt/E horizon and increases again in the B't horizons.

COMPETING SERIES: *These are the Allen, Etowah, Holston, Sailes and Silsbee series in the same family, and the Addielou, Avilla, Bama, Dubach, Ironcity, Leesburg, Lytle, Minvale, Nella, Noboco, Octavia, Pikeville and Warnock series in closely related families. Allen, Etowah, Sailes and Silsbee soils soils do not have a bisequal profile. Holston soils have color hues of 7.5YR and 10YR throughout. Addielou soils have an A horizon greater than 20 inches thick. Bama, Ironcity, Minvale and Noboco soils have a CEC to clay ratio less than.24 in the upper 20 inches of the argillic horizon. In addition, Bama, Octavia and Pikeville soils do not have a bisequal profile; Avilla, Ironcity, and Nella soils contain more than 10 percent coarse*

fragments throughout; Minvale soils contain less than 20 percent fine and coarser sand in the control section; and Dubach, Leesburg, Noboco and Warnock soils have color hues of 7.5YR and 10YR throughout. Lytle soils have a surface mantle of loess that is 2 to 3 feet thick.

GEOGRAPHIC SETTING: *These soils are on nearly level to moderately sloping uplands of the Western and Southern Coastal Plains on slope gradients of 0 percent to 8 percent. The soil formed in marine or stream deposits of Pleistocene age. The climate is warm and humid with mean annual temperature of 65 degrees F., and mean annual precipitation of 59 inches near the type location.*

GEOGRAPHICALLY ASSOCIATED SOILS: *These are the competing Sailes and Lytle series, and the Beauregard, Betis, Boykin, Mahan, Malbis, McLaurin, Ora, Savannah, Sawyer, Smithdale, and Tangi series. Beauregard and Malbis soils contain more than 5 percent plinthite. Sawyer and Mahan soils are finer textured. Betis, Boykin, and McLaurin soils are coarser textured. Ora, Savannah, and Tangi soils have a fragipan. Smithdale soils are not bisequal and are Hapludults.*

DRAINAGE AND PERMEABILITY: *Well-drained; medium to rapid runoff; moderate permeability.*

USE AND VEGETATION: *Principal use is woodland consisting of southern pine and some hardwoods with understories of shrubs or grasses. A small acreage is used for cotton, corn, soybeans, small grain, truck crops and pasture. A considerable portion of the acreage formerly cultivated has been converted to pasture or southern pine woodland*

DISTRIBUTION AND EXTENT: *Coastal Plains of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee and Texas. The series is of large extent, with an area of more than 1,000,000 acres.*

MLRA OFFICE RESPONSIBLE: *Little Rock, Arkansas*

SERIES ESTABLISHED: *Lincoln Parish, Louisiana; 1909.*

REMARKS: *The concept of the series limits the series to a bisequal profile. Soils formerly included in Ruston but having low silt content are excluded.*

Diagnostic horizons and features recognized are:

Ochric epipedon..0 to 7 inches (A and E horizons)

Albic horizon..4 to 7 inches (E horizon)

Argillic horizon..7 to 85 inches (Bt, Bt/E, and B't horizons).

Seven soil orders are found in Louisiana to include Alfisols, Entisols, Histosols, Inceptisols, Mollisols, Ultisols and Vertisols. Lower classifications of soils in the state include 14 suborders, 36 great groups and 105 subgroups of US Soil Taxonomy. The precise classification of each series depends on the edition by which it was keyed out, but most series have been keyed using U.S. Soil Taxonomy 2nd Ed. (Soil Survey Staff, 1999) or Keys to Soil Taxonomy 10th Ed.(Soil Survey Staff, 2006b). Since the first Louisiana soils field guide by Amacher et al. (1989), 51 soil series have been added in Louisiana and 14 previously recognized soil series in Louisiana have been removed. Of the 315 soil series approved for use in Louisiana, 38 have no mapped extent in the state as of 2008.

Tables 1-4 provide information on the soils of Louisiana to include taxonomic classification, mapped extent, MLRA, landscape setting, parent material, drainage, permeability, series deleted and series added.

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Table 1. Soil series, classification and extent in Louisiana.

Soil Series	Phase	Taxonomic Classification	Acres	Hectares
Abita	silt loam	Fine-silty, siliceous, active, thermic Glossaquic Paleudalfs	51946	21022
Acadia	silt loam	Fine, smectitic, thermic Aeric Epiaqualfs	45704	18496
Acadiana	silt loam	Fine, mixed, active, thermic Oxyaquic Glossudalfs	22182	8977
Acy	silt loam	Fine-silty, mixed, superactive, thermic Aeric Epiaqualfs	9463	3830
Alaga	loamy sand	Thermic, coated Typic Quartzipsamments	1190	482
Allemands*	mucky peat	Clayey, smectitic, euic, hyperthermic Terric Haplosaprists	422918	171151
Alligator	clay	Very-fine, smectitic, thermic Chromic Dystraquerts	121565	49196
Amagon	silt loam	Fine-silty, mixed, active, thermic Typic Endoaqualfs	300	121
Anacoco	silt loam	Fine, smectitic, thermic Vertic Albaqualfs	22662	9171
Andry	peat	Fine-silty, mixed, superactive, thermic Typic Argiaquolls	7118	2881
Angie	very fine sandy loam	Fine, mixed, semiactive, thermic Aquic Paleudults	21268	8607
Arat	mucky silt loam	Fine-silty, siliceous, superactive, nonacid, thermic Typic Hydraquents	35985	14563
Arkabutla	silt loam	Fine-silty, mixed, active, acid, thermic Fluventic Endoaquepts	36668	14839
Armistead	clay	Fine-silty, mixed, active, thermic Aquic Argiudolls	40808	16515
Ashford	clay	Very-fine, smectitic, thermic Chromic Dystraquerts	26697	10804
Attoyac	fine sandy loam	Fine-loamy, siliceous, semiactive, thermic Typic Paleudalfs	1275	516
Baldwin	silty clay loam	Fine, smectitic, hyperthermic Chromic Vertic Epiaqualfs	109517	44320
Balize	silt loam	Fine-silty, mixed, superactive, nonacid, hyperthermic Typic Hydraquents	45104	18253
Bancker	muck	Very-fine, smectitic, nonacid, hyperthermic Sodic Hydraquents	146104	59127
Barbary	muck	Very-fine, smectitic, nonacid, hyperthermic Typic Hydraquents	382264	154698
Basile	silt loam	Fine-silty, mixed, superactive, thermic Typic Glossaqualfs	45314	18338
Bassfield	sandy loam	Coarse-loamy, siliceous, semiactive, thermic Typic Hapludults	8820	3569
Bayoudan	clay	Very-fine, smectitic, thermic Aquic Dystruderts	24821	10045
Bearhead	very fine sandy loam	Coarse-loamy, siliceous, superactive, thermic Typic Hapludults	8190	3314
Beauregard	silt loam	Fine-silty, siliceous, superactive, thermic Plinthaquic Paleudults	211254	85492
Bellpass	muck	Clayey, smectitic, euic, hyperthermic Terric Haplosaprists	110391	44674
Bellwood	clay	Very-fine, smectitic, thermic Aquic Dystruderts	112909	45693
Bernaldo	fine sandy loam	Fine-loamy, siliceous, semiactive, thermic Glossic Paleudalfs	4050	1639
Besner	fine sandy loam	Coarse-loamy, siliceous, semiactive, thermic Typic Glossudalfs	4192	1696
Betis	loamy fine sand	Sandy, siliceous, thermic Lamellic Paleudults	65973	26699
Bibb	sandy loam	Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents	32680	13225
Bienville	loamy fine sand	Siliceous, thermic Psammentic Paleudalfs	38107	15422
Bigbee	loamy sand	Thermic, coated Typic Quartzipsamments	1010	409

*Note: Bold indicates Benchmark Soil Series.

Soil Series	Phase	Taxonomic Classification	Acres	Hectares
Bistineau	very fine sandy loam	Fine-loamy, siliceous, semiactive, thermic Typic Paleudalfs	5734	2320
Blevins	very fine sandy loam	Fine-silty, siliceous, active, thermic Typic Paleudults	49711	20118
Bodcau	silt loam	Coarse-silty, siliceous, active, thermic Aquic Paleudults	17966	7271
Bonn	silt loam	Fine-silty, mixed, superactive, thermic Glossic Natraqualfs	3470	1404
Bossier	clay	Very-fine, smectitic, thermic Aeric Epiaquerts	11380	4605
Boswell	fine sandy loam	Fine, mixed, active, thermic Vertic Paleudalfs	4754	1924
Bowie	very fine sandy loam	Fine-loamy, siliceous, semiactive, thermic Plinthic Paleudults	165134	66828
Boykin	loamy fine sand	Loamy, siliceous, active, thermic Arenic Paleudults	20640	8353
Briley	loamy fine sand	Loamy, siliceous, semiactive, thermic Arenic Paleudults	151809	61436
Brimstone	silt loam	Fine-silty, siliceous, superactive, thermic Glossic Natraqualfs	40096	16226
Bruin	silt loam	Coarse-silty, mixed, superactive, thermic Oxyaquic Eutrudepts	60306	24405
Brule	silty clay loam	Fine-silty, mixed, active, thermic Oxyaquic Paleudults	5085	2058
Bruno	sandy loam	Sandy, mixed, thermic Typic Udifluvents	2839	1149
Bude	silt loam	Fine-silty, mixed, active, thermic Aquic Fragiudalfs	5507	2229
Bursley	silty clay loam	Fine-silty, mixed, active, thermic Aeric Glossaqualfs	9690	3921
Buxin	clay	Very-fine, smectitic, thermic Aquic Hapluderts	44088	17842
Caddo	silt loam	Fine-silty, siliceous, active, thermic Typic Glossaqualfs	230185	93154
Cadeville	very fine sandy loam	Fine, mixed, active, thermic Albaquic Hapludalfs	73625	29795
Cahaba	sandy loam	Fine-loamy, siliceous, semiactive, thermic Typic Hapludults	72370	29287
Calhoun	silt loam	Fine-silty, mixed, active, thermic Typic Glossaqualfs	121702	49252
Calloway	silt loam	Fine-silty, mixed, active, thermic Aquic Fraglossudalfs	41535	16809
Cancienne	silt loam	Fine-silty, mixed, superactive, nonacid, hyperthermic Fluvaquentic Epiaquepts	260960	105608
Caplis	very fine sandy loam	Coarse-silty over clayey, mixed over smectitic, superactive, calcareous, thermic Oxyaquic Udifluvents	3624	1467
Carlin	mucky peat	Clayey, smectitic, euic, hyperthermic Terric Haplosaprists	7403	2996
Carville	very fine sandy loam	Coarse-silty, mixed, superactive, calcareous, hyperthermic Fluventic Endoaquepts	114113	46180
Cascilla	silt loam	Fine-silty, mixed, active, thermic Fluventic Dystrudepts	58965	23863
Caspiana	silt loam	Fine-silty, mixed, active, thermic Typic Argiudolls	27842	11267
Cheniere	sandy clay loam	Carbonatic, hyperthermic Typic Udipsamments	517	209
Clovelly	muck	Clayey, smectitic, euic, hyperthermic Terric Haplosaprists	288379	116704
Cocodrie	very fine sandy loam	Coarse-silty, mixed, superactive, nonacid, thermic Aquic Udifluvents	1215	492
Commerce	silt loam	Fine-silty, mixed, superactive, nonacid, thermic Fluvaquentic Endoaquepts	206765	83676
Convent	silt loam	Coarse-silty, mixed, superactive, nonacid, thermic Fluvaquentic Endoaquepts	85456	34583
Corrigan	fine sandy loam	Fine, smectitic, thermic Albaquic Hapludalfs	7395	2993
Coteau	silt loam	Fine-silty, mixed, active, hyperthermic Glossaquic Hapludalfs	89966	36408
Coushatta	silt loam	Fine-silty, mixed, superactive, thermic Fluventic Eutrudepts	17070	6908
Creole	mucky clay	Fine, smectitic, nonacid, hyperthermic Typic Hydraquents	90786	36740

Soil Series	Phase	Taxonomic Classification	Acres	Hectares
Crevasse	sand	Mixed, thermic Typic Udipsamments	23740	9607
Crowley	silt loam	Fine, smectitic, thermic Typic Albaqualfs	345509	139824
Cypress	clay loam	Fine, mixed, superactive, acid, thermic Typic Fluvaquents	5528	2237
Darbonne	loamy fine sand	Fine-loamy, siliceous, active, thermic Typic Paleudalfs	7079	2865
Darley	loamy fine sand	Fine, kaolinitic, thermic Typic Hapludults	308388	124802
Deerford	silt loam	Fine-silty, mixed, superactive, thermic albic Glossic Natraqualfs	34613	14008
Delcomb	mucky peat	Loamy, mixed, euic, hyperthermic Terric Haplosaprists	8996	3641
Dexter	silt loam	Fine-silty, mixed, active, thermic Ultic Hapludalfs	28960	11720
Dossman	silt loam	Fine-silty, mixed, active, thermic Ultic Hapludalfs	5195	2102
Doucette	loamy fine sand	Loamy, siliceous, semiactive, thermic Arenic Plinthic Paleudults	3145	1273
Dowling	clay	Very-fine, smectitic, nonacid, thermic Vertic Endoaquepts	199657	80799
Dubach	fine sandy loam	Fine-loamy, siliceous, semiactive, thermic Typic Paleudults	23466	9496
Dundee	loam	Fine-silty, mixed, active, thermic Typic Endoaqualfs	198092	80166
Dupuy	silt loam	Fine-silty, mixed, active, hyperthermic Aeric Endoaqualfs	6379	2582
Duralde	silt loam	Fine-silty, mixed, active, thermic Fragic Glossudalfs	21655	8764
Duson	silt loam	Fine-silty, mixed, superactive, thermic Aquic Paleudalfs	6557	2654
Eastwood	very fine sandy loam	Fine, smectitic, thermic Chromic Vertic Hapludalfs	325100	131565
Egypt	silt loam	Fine-silty, mixed, active, thermic Aquic Glossudalfs	21855	8844
Elysian	fine sandy loam	Coarse-loamy, siliceous, active, thermic Haplic Glossudalfs	2100	850
Essen	silt loam	Fine-silty, mixed, superactive, thermic Aeric Epiaqualfs	4852	1964
Evangeline	silt loam	Fine-silty, mixed, active, thermic Glossic Paleudalfs	10596	4288
Falaya	silt loam	Coarse-silty, mixed, active, acid, thermic Aeric Fluvaquents	4221	1708
Falkner	silt loam	Fine-silty, siliceous, active, thermic Aquic Paleudalfs	43412	17568
Fausse	clay	Very-fine, smectitic, nonacid, hyperthermic Vertic Endoaquepts	290857	117707
Feliciana	silt loam	Fine-silty, mixed, active, thermic Ultic Hapludalfs	4025	1629
Felicity	loamy fine sand	Mixed, hyperthermic Aquic Udipsamments	11596	4693
Flo	loamy fine sand	Sandy, siliceous, thermic Lamellic Paleudalfs	11160	4516
Fluker	silt loam	Fine-silty, siliceous, active, thermic Aquic Fraglossudalfs	27366	11075
Foley	silt loam	Fine-silty, mixed, active, thermic albic Glossic Natraqualfs	23220	9397
Forbing	silt loam	Very-fine, smectitic, thermic Vertic Paleudalfs	41093	16630
Forestdale	silty clay loam	Fine, smectitic, thermic Typic Endoaqualfs	40114	16234
Fountain	silt loam	Fine-silty, mixed, superactive, thermic Typic Glossaqualfs	1234	499
Fred	silt loam	Fine-silty, mixed, superactive, thermic Aquic Glossudalfs	1710	692
Frizzell	silt loam	Coarse-silty, siliceous, active, thermic Glossaquic Hapludalfs	116605	47189
Frost	silt loam	Fine-silty, mixed, active, thermic Typic Glossaqualfs	145511	58887
Frozard	silt loam	Fine-silty, mixed, superactive, thermic Aeric Epiaqualfs	5706	2309

Soil Series	Phase	Taxonomic Classification	Acres	Hectares
Gallion	silt loam	Fine-silty, mixed, superactive, thermic Typic Hapludalfs	146313	59211
Galvez	silt loam	Fine-silty, mixed, superactive, hyperthermic Aeric Endoaqualfs	25119	10165
Ged	clay	Very-fine, mixed, active, hyperthermic Typic Endoaqualfs	48114	19471
Gentilly	muck	Fine, smectitic, nonacid, hyperthermic Typic Hydraquents	36709	14856
Gessner	fine sandy loam	Fine-loamy, siliceous, active, hyperthermic Typic Vermaqualfs	1110	449
Gigger	silt loam	Fine-silty, mixed, active, thermic Typic Fragiudalfs	48740	19725
Gilbert	silt loam	Fine-silty, mixed, active, thermic Typic Glossaqualfs	112075	45356
Glenmora	silt loam	Fine-silty, siliceous, active, thermic Glossaquic Paleudalfs	167953	67969
Glenwild	silty clay loam	Fine-silty, mixed, superactive, hyperthermic Oxyaquic Hapludalfs	6554	2652
Goldman	very fine sandy loam	Coarse-silty, mixed, active, thermic Aquic Hapludalfs	4106	1662
Gore	silt loam	Fine, mixed, active, thermic Vertic Paleudalfs	209136	84635
Gramercy	silty clay loam	Fine, smectitic, hyperthermic Chromic Epiaquerts	27786	11245
Grenada	silt loam	Fine-silty, mixed, active, thermic Oxyaquic Fraglossudalfs	10540	4265
Groom	silt loam	Fine-silty, siliceous, active, thermic Aeric Epiaqualfs	17255	6983
Gueydan	muck	Fine, smectitic, nonacid, thermic, cracked Typic Fluvaquents	34841	14100
Gurdon	silt loam	Coarse-silty, siliceous, semiactive, thermic Aquic Paleudults	26019	10530
Guyton	silt loam	Fine-silty, siliceous, active, thermic Typic Glossaqualfs	1195108	483648
Hackberry	loamy fine sand	Sandy, mixed, hyperthermic Aeric Endoaquepts	16702	6759
Haggerty	loamy fine sand	Coarse-loamy, siliceous, active, thermic Aeric Endoaquults	2250	911
Harahan	clay	Very-fine, smectitic, nonacid, hyperthermic Vertic Endoaquepts	57876	23422
Harleston	loam	Coarse-loamy, siliceous, semiactive, thermic Aquic Paleudults	12465	5044
Hebert	silt loam	Fine-silty, mixed, active, thermic Aeric Epiaqualfs	94674	38314
Herty	very fine sandy loam	Fine, smectitic, thermic Oxyaquic Vertic Hapludalfs	1530	619
Hornbeck	clay	Fine, smectitic, thermic Aquic Hapluderts	10285	4162
Iberia	clay	Very-fine, smectitic, hyperthermic Typic Epiaquerts	66648	26972
Iota	silt loam	Fine, smectitic, thermic Vertic Hapludalfs	2766	1119
Iuka	fine sandy loam	Coarse-loamy, siliceous, active, acid, thermic Aquic Udifluvents	160081	64783
Jeanerette	silt loam	Fine-silty, mixed, superactive, thermic Typic Argiaquolls	137140	55499
Jena	silt loam	Coarse-loamy, siliceous, active, thermic Fluventic Dystrudepts	22472	9094
Judice	silty clay	Fine, smectitic, thermic Typic Epiaquerts	44941	18187
Kaplan	silt loam	Fine, smectitic, thermic Aeric Chromic Vertic Epiaqualfs	111611	45168
Keiffer	clay loam	Fine-silty, carbonatic, thermic Rendollic Eutrudepts	1190	482
Keithville	very fine sandy loam	Fine-silty, siliceous, semiactive, thermic Glossaquic Paleudalfs	147222	59579
Kenefick	fine sandy loam	Fine-loamy, siliceous, active, thermic Ultic Hapludalfs	3494	1414
Kenner	muck	Euic, hyperthermic Fluvaquentic Haplosaprists	284661	115199
Kinder	silt loam	Fine-silty, siliceous, active, thermic Typic Glossaqualfs	115593	46779

Soil Series	Phase	Taxonomic Classification	Acres	Hectares
Kirbyville	fine sandy loam	Fine-loamy, siliceous, semiactive, thermic Oxyaquic Paleudults	35507	14369
Kirvin	very fine sandy loam	Fine, mixed, semiactive, thermic Typic Hapludults	96280	38964
Kisatchie	loam	Fine, smectitic, thermic Typic Hapludalfs	70842	28669
Kleinpeter	silt	Fine-silty, mixed, active, hyperthermic Oxyaquic Glossudalfs	641	259
Kolin	silt loam	Fine-silty, siliceous, active, thermic Glossaquic Paleudalfs	122757	49679
Lafe	silt loam	Fine-silty, mixed, active, thermic Glossaquic Natrudalfs	1060	429
Lafitte	muck	Euic, hyperthermic Typic Haplosaprists	253776	102701
Larose	muck	Very-fine, smectitic, nonacid, hyperthermic Typic Hydraquents	152181	61586
Larue	loamy fine sand	Loamy, siliceous, semiactive, thermic Arenic Paleudalfs	8115	3284
Latanier	clay	Clayey over loamy, smectitic over mixed, superactive, thermic Oxyaquic Hapluderts	83473	33781
Latonia	sandy loam	Coarse-loamy, siliceous, semiactive, thermic Typic Hapludults	33405	13519
Leaf	silt loam	Fine, mixed, active, thermic Typic Albaquults	1800	728
Lebeau	clay	Very-fine, smectitic, thermic Aquic Hapluderts	53384	21604
Letney	loamy sand	Loamy, siliceous, semiactive, thermic Arenic Paleudults	14380	5819
Leton	loam	Fine-silty, siliceous, superactive, hyperthermic Typic Glossaqualfs	58980	23869
Lexington	silt loam	Fine-silty, mixed, active, thermic Ultic Hapludalfs	858	347
Libuse	silt loam	Fine-silty, siliceous, semiactive, thermic Typic Fragiudalfs	33483	13550
Liddieville	fine sandy loam	Fine-loamy, mixed, semiactive, thermic Ultic Hapludalfs	6505	2633
Litro	clay	Fine, mixed, active, thermic Chromic Dystraquerts	17400	7042
Loreauville	silt loam	Fine-silty, mixed, superactive, hyperthermic Mollic Endoaqualfs	35322	14294
Loring	silt loam	Fine-silty, mixed, active, thermic Oxyaquic Fragiudalfs	90757	36728
Lotus	sand	Thermic, coated Aquic Quartzipsamments	2850	1153
Lucy	loamy sand	Loamy, kaolinitic, thermic Arenic Kandiudults	18238	7381
Lytle	silt loam	Fine-loamy, siliceous, semiactive, thermic Typic Paleudults	30912	12510
Mahan	fine sandy loam	Fine, kaolinitic, thermic Typic Hapludults	112996	45728
Malbis	fine sandy loam	Fine-loamy, siliceous, subactive, thermic Plinthic Paleudults	405252	164001
Mamou	silt loam	Fine-silty, siliceous, active, thermic Aeric Albaqualfs	6439	2606
Mantachie	loam	Fine-loamy, siliceous, active, acid, thermic Fluventic Endoaquepts	8190	3314
Maurepas	muck	Euic, hyperthermic Typic Haplosaprists	127826	51730
Mayhew	silty clay loam	Fine, smectitic, thermic Chromic Dystraquerts	31997	12949
Mckamie	fine sandy loam	Fine, mixed, superactive, thermic Vertic Hapludalfs	47591	19260
Mclaurin	loamy sand	Coarse-loamy, siliceous, subactive, thermic Typic Paleudults	46378	18769
Memphis	silt loam	Fine-silty, mixed, active, thermic Typic Hapludalfs	47133	19074
Mer rouge	silt loam	Fine-silty, mixed, superactive, thermic Typic Argiudolls	865	350
Mermentau	clay	Clayey over loamy, smectitic over mixed, superactive, nonacid, hyperthermic Typic Endoaquepts	24700	9996
Merryville	silt loam	Coarse-silty, siliceous, superactive, thermic Typic Glossaqualfs	8025	3248

Soil Series	Phase	Taxonomic Classification	Acres	Hectares
Messer	silt loam	Coarse-silty, siliceous, superactive, thermic Haplic Glossudalfs	142562	57693
Metcalf	silt loam	Fine-silty, siliceous, semiactive, thermic Glossaquic Paleudalfs	144215	58362
Meth	fine sandy loam	Fine, mixed, semiactive, thermic Ultic Hapludalfs	31715	12835
Mhoon	silt loam	Fine-silty, mixed, superactive, nonacid, thermic Fluvaquentic Endoaquepts	10440	4225
Midland	silty clay loam	Fine, smectitic, thermic Chromic Vertic Epiaqualfs	119720	48449
Mollicy	loam	Fine-loamy, siliceous, semiactive, thermic Aquic Hapludults	8860	3586
Moreland	clay	Very-fine, smectitic, thermic Oxyaquic Hapluderts	236965	95897
Morey	loam	Fine-silty, siliceous, superactive, hyperthermic Oxyaquic Argiudolls	40107	16231
Morganfield	silt loam	Coarse-silty, mixed, active, nonacid, thermic Typic Udifluvents	2020	817
Morse	clay	Fine, mixed, superactive, thermic Chromic Hapluderts	5020	2032
Mowata	silt loam	Fine, smectitic, thermic Typic Glossaqualfs	128628	52054
Muskogee	silt loam	Fine-silty, mixed, active, thermic Aquic Paleudalfs	10567	4276
Myatt	silt loam	Fine-loamy, siliceous, active, thermic Typic Endoaquults	144367	58424
Nacogdoches	fine sandy loam	Fine, kaolinitic, thermic Rhodic Paleudalfs	1785	722
Natchez	silt loam	Coarse-silty, mixed, superactive, thermic Typic Eutrudepts	1476	597
Natchitoches	sandy clay loam	Very-fine, smectitic, thermic Vertic Hapludalfs	18030	7297
Necessity	silt loam	Fine-silty, mixed, active, thermic Aquic Fraglossudalfs	27540	11145
Newellton	clay	Clayey over loamy, smectitic over mixed, superactive, nonacid, thermic Fluvaquentic Epiaquepts	36705	14854
Niwana	fine sandy loam	Coarse-loamy, siliceous, semiactive, thermic Typic Paleudults	17165	6947
Norwood	silt loam	Fine-silty, mixed, superactive, hyperthermic Fluventic Eutrudepts	163847	66307
Nugent	fine sandy loam	Sandy, siliceous, thermic Typic Udifluvents	2825	1143
Ochlockonee	sandy loam	Coarse-loamy, siliceous, active, acid, thermic Typic Udifluvents	72340	29275
Oktibbeha	clay loam	Very-fine, smectitic, thermic Chromic Dystruderts	8495	3438
Olivier	silt loam	Fine-silty, mixed, active, thermic Aquic Fraglossudalfs	79166	32038
Olla	fine sandy loam	Fine-loamy, siliceous, active, thermic Typic Hapludults	10317	4175
Ora	sandy loam	Fine-loamy, siliceous, semiactive, thermic Typic Fragiudults	15183	6144
Osier	loamy fine sand	Siliceous, thermic Typic Psammaquents	8286	3353
Ouachita	silt loam	Fine-silty, siliceous, active, thermic Fluventic Dystrudepts	158812	64270
Oula	very fine sandy loam	Fine, smectitic, thermic Vertic Hapludalfs	37414	15141
Patoutville	silt	Fine-silty, mixed, superactive, thermic Aeric Epiaqualfs	188999	76486
Perry	clay	Very-fine, smectitic, thermic Chromic Epiaquerts	195754	79220
Peveto	fine sand	Mixed, thermic Typic Udipsamments	1170	473
Pheba	silt loam	Coarse-silty, siliceous, active, thermic Glossaquic Fragiudults	10094	4085
Pineisland	loam	Fine-silty, siliceous, semiactive, hyperthermic Oxyaquic Fraglossudalfs	1214	491
Pinetucky	loam	Fine-loamy, siliceous, semiactive, thermic Plinthic Paleudults	1214	491
Placedo	silty clay	Fine, smectitic, nonacid, hyperthermic Typic Fluvaquents	6573	2660

Soil Series	Phase	Taxonomic Classification	Acres	Hectares
Portland	silty clay	Very-fine, mixed, superactive, nonacid, thermic Vertic Epiaquepts	41785	16910
Prentiss	loam	Coarse-loamy, siliceous, semiactive, thermic Glossic Fragiudults	56390	22820
Providence	silt loam	Fine-silty, mixed, active, thermic Oxyaquic Fragiudalfs	50768	20545
Rayburn	fine sandy loam	Fine, smectitic, thermic Vertic Hapludalfs	17310	7005
Rexor	loam	Fine-silty, siliceous, active, thermic Oxyaquic Hapludalfs	7345	2972
Rigolette	loamy fine sand	Fine-loamy, siliceous, active, thermic Typic Epiaqualfs	3528	1428
Rilla	silt loam	Fine-silty, mixed, active, thermic Typic Hapludalfs	42255	17100
Rita	muck	Very-fine, smectitic, nonacid, hyperthermic Vertic Endoaquepts	37493	15173
Robinsonville	very fine sandy loam	Coarse-loamy, mixed, superactive, nonacid, thermic Typic Udifluvents	7756	3139
Rosebloom	silt loam	Fine-silty, mixed, active, acid, thermic Fluvaquentic Endoaquepts	40848	16531
Roxana	very fine sandy loam	Coarse-silty, mixed, superactive, nonacid, thermic Typic Udifluvents	68307	27643
Ruple	gravelly loam	Fine, parasesquic, thermic Typic Rhodudults	3315	1342
Ruston	fine sandy loam	Fine-loamy, siliceous, semiactive, thermic Typic Paleudults	621604	251557
Sacul	very fine sandy loam	Fine, mixed, active, thermic Aquic Hapludults	785977	318077
Sailes	fine sandy loam	Fine-loamy, siliceous, semiactive, thermic Typic Paleudults	6056	2451
Sardis	silt loam	Fine-silty, siliceous, active, thermic Fluvaquentic Dystrudepts	6360	2574
Satsuma	silt loam	Fine-silty, siliceous, active, thermic Glossaquic Hapludalfs	3960	1603
Saucier	fine sandy loam	Fine-loamy, siliceous, subactive, thermic Plinthaquic Paleudults	12835	5194
Savannah	fine sandy loam	Fine-loamy, siliceous, semiactive, thermic Typic Fragiudults	305498	123632
Sawyer	silt loam	Fine-silty, siliceous, semiactive, thermic Aquic Paleudults	32970	13343
Scatlake	peat	Very-fine, smectitic, nonacid, hyperthermic Sodic Hydraquents	154533	62538
Schriever	clay	Very-fine, smectitic, hyperthermic Chromic Epiaquerts	370664	150004
Severn	very fine sandy loam	Coarse-silty, mixed, superactive, calcareous, thermic Typic Udifluvents	72203	29220
Sharkey	clay	Very-fine, smectitic, thermic Chromic Epiaquerts	1212064	490510
Shatta	silt loam	Fine-silty, siliceous, semiactive, thermic Typic Fragiudults	28059	11355
Smithdale	sandy loam	Fine-loamy, siliceous, subactive, thermic Typic Hapludults	284080	114964
Smithton	loam	Coarse-loamy, siliceous, semiactive, thermic Typic Paleaquults	4320	1748
Solier	clay	Fine-silty, mixed, superactive, thermic Aeric Epiaqualfs	11880	4808
Sonnier	clay	Fine-loamy, mixed, active, thermic Aquertic Argiudolls	1543	624
Sostien	clay	Fine, smectitic, nonacid, thermic Vertic Fluvaquents	3660	1481
Springfield	silt loam	Fine, mixed, active, thermic Aeric Albaqualfs	1795	726
Sterlington	silt loam	Coarse-silty, mixed, superactive, thermic Typic Hapludalfs	23420	9478
Stough	fine sandy loam	Coarse-loamy, siliceous, semiactive, thermic Fragiaquic Paleudults	89765	36327
Sugartown	very fine sandy loam	Fine, mixed, active, thermic Ultic Hapludalfs	31445	12725
Sumter	silty clay	Fine-silty, carbonatic, thermic Rendollic Eutrudepts	6	2
Sweatman	silt loam	Fine, mixed, semiactive, thermic Typic Hapludults	5488	2221

Soil Series	Phase	Taxonomic Classification	Acres	Hectares
Tangi	silt loam	Fine-silty, mixed, semiactive, thermic Typic Fragiudults	236344	95646
Tenot	silt loam	Fine-silty, mixed, active, thermic Aeric Albaqualfs	3022	1223
Tensas	silty clay	Fine, smectitic, thermic Chromic Vertic Epiaqualfs	292024	118179
Timbalier	muck	Euic, hyperthermic Typic Haplosaprists	177783	71947
Tippah	silt loam	Fine-silty, mixed, active, thermic Aquic Paleudalfs	26369	10671
Toula	silt loam	Fine-silty, mixed, semiactive, thermic Typic Fragiudults	60721	24573
Trep	loamy fine sand	Loamy, siliceous, semiactive, thermic Arenic Paleudults	40214	16274
Tunica	clay	Clayey over loamy, smectitic over mixed, superactive, nonacid, thermic Vertic Epiaquepts	82988	33584
Una	silty clay	Fine, mixed, active, acid, thermic Typic Epiaquepts	16680	6750
Urbo	silty clay loam	Fine, mixed, active, acid, thermic Vertic Epiaquepts	21170	8567
Vacherie	silt loam	Coarse-silty over clayey, mixed over smectitic, superactive, nonacid, thermic Aeric Fluvaquents	10262	4153
Vaiden	clay	Very-fine, smectitic, thermic Aquic Dystruderts	8871	3590
Verdun	silt loam	Fine-silty, mixed, superactive, thermic Glossic Natraqualfs	10512	4254
Vick	silt loam	Fine-silty, siliceous, active, thermic Glossaquic Hapludalfs	7568	3063
Vidrine	silt loam	Fine, smectitic, thermic Aquic Glossudalfs	193311	78231
Waller	loam	Fine-loamy, siliceous, active, thermic Typic Glossaqualfs	5695	2305
Warnock	fine sandy loam	Fine-loamy, siliceous, semiactive, thermic Typic Paleudults	5670	2295
Watsonia	clay	Clayey, smectitic, thermic, shallow Leptic Hapluderts	1534	621
Waverly	silt loam	Coarse-silty, mixed, active, acid, thermic Fluvaquentic Endoaquepts	2040	826
Westwego	clay	Very-fine, smectitic, nonacid, thermic, cracked Thapto-Histic Fluvaquents	20919	8466
Weyanoke	silt	Coarse-silty, mixed, active, thermic Dystric Eutrudepts	2304	932
Wolfpen	loamy fine sand	Loamy, siliceous, semiactive, thermic Arenic Paleudalfs	36975	14963
Woodtell	fine sandy loam	Fine, smectitic, thermic Vertic Hapludalfs	90193	36500
Wrightsville	silt loam	Fine, mixed, active, thermic Typic Glossaqualfs	147261	59595
Yorktown	silty clay	Very-fine, smectitic, nonacid, thermic Vertic Epiaquepts	8336	3373
Zachary	silt loam	Fine-silty, mixed, active, thermic Typic Albaqualfs	13940	5641
Zenoria	clay loam	Fine-loamy, siliceous, active, thermic Aeric Endoaquults	1860	753

Table 2. Soil area, MLRA, landscape setting, parent material and interpretations for Louisiana.

Soil Series	Soil Area	MLRA	Landscape Setting	Parent Material	Drainage	Permeability
Abita	Flatwoods	152A	Pleistocene terraces	silty sediments	poor	slow
Acadia	Flatwoods	131C, 133B, 150A, 152B	Pleistocene terraces	clayey alluvium	poor	very slow
Acadiana	Coastal Prairie	150A	uplands	loamy and clayey alluvium	moderately well	very slow
Acy	Loess Hills	134	Pleistocene terraces	loess & alluvium	poor	moderately slow
Alaga	Coastal Plain	133A, 133B, 152A, 152B	uplands & terraces	loamy sands & sands	excessive	rapid
Allemands	Coastal Marsh	131, 151	freshwater marshes	decomposed OM over clay	very poor	very slow
Alligator	Mississippi River Alluvial	131A	floodplains	clayey slack water sediments	poor	very slow
Amagon	Mississippi River Alluvial	131A	terraces	silty & clayey alluvium	poor	slow
Anacoco	Coastal Plain	133B	uplands	acid clays & silty clays	poor	very slow
Andry	Coastal Marsh	151	brackish marshes	OM over prairie age loess	very poor	moderately slow
Angie	Coastal Plain	133A,133B	uplands	sandy & clayey sediments	moderately well	slow
Arat	Coastal Marsh	150A, 151	swamps	loamy alluvium	very poor	very slow
Arkabutla	Stream Alluvial (Flatwoods)	134	uplands	silty alluvium	poor	moderate
Armistead	Red River Alluvial	131C	alluvial plains	clayey over loamy alluvium	poor	slow
Ashford	Coastal Plain	133B	Pleistocene terraces	clayey alluvium	poor	very slow
Attoyac	Coastal Plain	133B, 152B	stream terraces	loamy & sandy sediments	poor	slow
Baldwin	Mississippi River Alluvial	131A	natural levees	clayey alluvium	poor	very slow
Balize	Coastal Marsh	151	freshwater marshes	loamy alluvium	very poor	slow
Bancker	Coastal Marsh	151	brackish marshes	OM over clayey sediments	very poor	very slow
Barbary	Mississippi River Alluvial	131A, 151	backswamps	clayey alluvium	very poor	very slow
Basile	Stream Alluvial (Flatwoods)	150A	floodplains	loamy alluvium	poor	slow
Bassfield	Coastal Plain	133A	stream terraces	loamy & sandy sediments	well	moderately rapid
Bayoudan	Coastal Plain	133B	uplands	clayey marine sediments	moderately well	very slow
Bearhead	Coastal Plain	133B, 152B	convex mounds and elongated ridges	stratified loamy and sandy alluvium	moderately well	moderate
Beauregard	Flatwoods	133A, 133B, 152A, 152B	Pleistocene terraces	loamy sediments	moderately well	slow
Bellpass	Coastal Marsh	151	saltwater marshes	OM over clayey sediments	very poor	very slow
Bellwood	Coastal Plain	133B	uplands	acid, clayey, Tertiary sediments	poor	very slow
Bernaldo	Coastal Plain	133B, 152B	uplands	acid, loamy sediments	well	moderate
Besner	Coastal Plain	133B	Pleistocene terraces	alluvial sediments	well	moderate
Betis	Coastal Plain	133B	interstream divides	sandy sediments	excessive	rapid
Bibb	Stream Alluvial (C. Plain)	133A, 133B, 152A, 152B	floodplains	loamy & sandy sediments	poor	moderate
Bienville	Coastal Plain	133A, 133B, 152A, 152B	stream terraces	sandy alluvium	excessive	moderately rapid
Bigbee	Coastal Plain	133A	floodplains	sandy sediments	excessive	rapid

Soil Series	Soil Area	MLRA	Landscape Setting	Parent Material	Drainage	Permeability
Bistineau	Red River Alluvial	133B	Pleistocene terraces	loamy alluvial sediments	well	moderate
Blevins	Coastal Plain	133B	uplands or old terraces	loamy marine or stream sediments	well	moderate
Bodcau	Coastal Plain	133B	Pleistocene terraces	silty alluvial sediments	poor	moderately slow
Bonn	Loess Hills	133A, 133B, 134	Pleistocene terr. & alluv. Plains	thin loess or silty sediments	poor	very slow
Bossier	Red River Alluvial	131C, 133B	backswamps	clayey alluvium	poor	very slow
Boswell	Coastal Plain	133A, 133B	uplands	acid clay	moderately well	very slow
Bowie	Coastal Plain	133B	uplands	sandy loam & clays	moderately well	moderately slow
Boykin	Coastal Plain	133B	uplands	sandy & loamy sediments	well	moderate
Briley	Coastal Plain	133A, 133B	interstream divides	sandy & loamy sediments	well	moderate
Brimstone	Flatwoods	152A, 152B	Pleistocene terraces	loamy alluvium	poor	slow
Bruin	Mississippi River Alluvial	131A	alluvial plains	alkaline loamy alluvium	moderately well	moderate
Brule	Coastal Prairie	150A	floodplains	silty alluvium	moderately well	moderate
Bruno	Mississippi River Alluvial	131A	floodplains	sandy alluvium	excessive	rapid
Bude	Loess Hills	133A	uplands & terraces	thin loess over loam	poor	moderate
Bursley	Stream Alluvial (Loess H.)	131A, 134	Pleistocene terraces	thin loess & terrace deposits	poor	slow
Buxin	Red River Alluvial	131C	floodplains	clayey alluvium	poor	very slow
Caddo	Flatwoods	133B, 152A, 152B	Pleistocene terraces	loamy sediments	poor	slow
Cadeville	Coastal Plain	133A	uplands	clay & silty clay	moderately well	very slow
Cahaba	Coastal Plain	133B	stream terraces	loamy & sandy sediments	well	moderate
Calhoun	Loess Hills	131A, 134	Pleistocene terraces	loess	poor	slow
Calloway	Loess Hills	134	uplands & terraces	loess	poor	slow
Cancienne	Mississippi River Alluvial	131A	natural levees on alluvial plains	loamy and clayey alluvium	poor	moderately slow
Caplis	Red River Alluvial	131C	floodplains	loamy alluvial sediments	moderately well	rapid
Carlin	Coastal Marsh	151	freshwater marshes	OM over sediments	very poor	rapid (drained)
Carville	Mississippi River Alluvial	131A	floodplains	loamy alluvium	poor	moderate
Cascilla	Stream Alluvial (Loess H.)	134	natural levees	silty alluvium	well	moderate
Caspiana	Red River Alluvial	131B, 131C	old natural levees on floodplains	calcareous alluvium	well	moderate
Cheniere	Coastal Marsh	151	beach ridges	shell & sand	excessive	rapid
Clovelly	Coastal Marsh	151	brackish marshes	OM over clayey sediments	very poor	very slow
Cocodrie	Stream Alluvial	131A	waterway spoil banks	dredged loamy sediments	moderately well	moderate
Commerce	Mississippi River Alluvial	131A	alluvial plains	alluvium	poor	moderately slow
Convent	Mississippi River Alluvial	131A	floodplains	alluvium	poor	moderate

Soil Series	Soil Area	MLRA	Landscape Setting	Parent Material	Drainage	Permeability
Corrigan	Coastal Plain	133B	uplands	acid clays &silty clays	poor	very slow
Coteau	Loess Hills	134	stream divides	loess	poor	moderately slow
Coushatta	Red River Alluvial	131, 133B	natural levees	calcareous, loamy alluvium	well	moderate
Creole	Coastal Marsh	151	brackish marshes	clayey alluvium	very poor	very slow
Crevasse	Mississippi River Alluvial	131A	floodplains	sandy alluvial sediments	excessive	rapid
Crowley	Coastal Prairie	150A	Pleistocene terraces	alluvial sediments	poor	very slow
Cypress	Coastal Plain	133B, 152B	stream channels or lake beds	acidic, clayey alluvial sediments	very poor	very slow
Darbonne	Coastal Plain	133B	uplands	sideritic marine sediments	well	slow
Darley	Coastal Plain	133B	uplands	sideritic, clayey marince sed.	well	slow
Deerford	Loess Hills	134	Pleistocene terraces	loess	poor	slow
Delcomb	Coastal Marsh	151	brackish marshes	OM over silty sediments	very poor	rapid (drained)
Dexter	Loess Hills	134	Pleistocene terraces	silty alluvium	well	moderate
Dossman	Loess Hills	134	dissected hills	loess	well	moderately slow
Doucette	Coastal Plain	133B	uplands	sandy and loamy sediments	well	moderate
Dowling	Mississippi River Alluvial	131	depressions and backswamps	clayey alluvium	very poor	very slow
Dubach	Coastal Plain	133B	uplands	loamy sediments	well	moderate
Dundee	Mississippi River Alluvial	131	natural levees or low terraces	loamy alluvium	poor	moderately slow
Dupuy	Mississippi River Alluvial	131	natural levees	silty alluvium	poor	moderately slow
Duralde	Loess Hills	134	Pleistocene terraces	loess	poor	slow
Duson	Loess Hills	134	Pleistocene terraces	thin loess overy loamy and clayey alluvium	poor	slow
Eastwood	Coastal Plain	133B	interstream divides	loamy & sandy sediments	moderately well	very slow
Egypt	Loess Hills	134	Pleistocene terraces	mixed loess & terrace sediments	poor	slow
Elysian	Flatwoods	133B	mounds on terraces	loamy sediments	moderately well	moderate
Essen	Loess Hills	134	Pleistocene terraces	loess	poor	slow
Evangeline	Loess Hills	134	ridge tops & drainage divides	loess	moderately well	moderate
Falaya	Stream Alluvial (Loess H.)	131A, 133A, 134	floodplains	silty alluvium	poor	slow
Falkner	Stream Alluvial (Loess H.)	133A, 134	stream terraces	silty alluvium	poor	slow
Fausse	Mississippi River Alluvial	131A, 151	backswamps	clayey alluvium	very poor	very slow
Feliciana	Coastal Plain	134	terrace and uplands	loess	well	moderate
Felicity	Coastal Marsh	151	coastal beaches	sandy sediments	poor	very rapid
Flo	Coastal Plain	133B	interstream divides	sandy sediments	excessive	rapid

Soil Series	Soil Area	MLRA	Landscape Setting	Parent Material	Drainage	Permeability
Fluker	Loess Hills	133A, 134	stream terraces	loess over loamy sediments	poor	slow
Foley	Loess Hills	131, 134	Pleistocene terraces	loess	poor	very slow
Forbing	Coastal Plain	133B	dissected Pleistocene terraces	clayey alluvium	moderately well	very slow
Forestdale	Mississippi River Alluvial	131	natural levees or low terraces	loess	poor	very slow
Fountain	Loess Hills	131, 134	Pleistocene terraces	loess	poor	moderately slow
Fred	Loess Hills	134	uplands or Pleistocene terraces	loess	moderately well	moderately slow
Frizzell	Loess Hills	133B	Pleistocene terraces	silty alluvium	poor	slow
Frost	Loess Hills	134	uplands or Pleistocene terraces	loess	poor	slow
Frozard	Loess Hills	134	Pleistocene terraces	loess	poor	slow
Gallion	Red River Alluvial	131	natural levees	silty alluvium	well	moderate
Galvez	Mississippi River Alluvial	131	natural levees or low terraces	silty alluvium	poor	moderately slow
Ged	Coastal Marsh	151	freshwater marshes	clayey alluvium over sub. terr.	very poor	very slow
Gentilly	Coastal Marsh	151	brackish marshes	clayey alluvium	very poor	very slow
Gessner	Coastal Prairie	150A	Pleistocene terraces	loamy sediments	poor	very slow
Gigger	Loess Hills	134	Pleistocene terraces	thin loess over terrace sediments	moderately well	slow
Gilbert	Loess Hills	134	Pleistocene terraces	mixed loess & terrace sediments	poor	very slow
Glenmora	Flatwoods	133B	Pleistocene terraces	mixed alluvium	moderately well	slow
Glenwild	Mississippi River Alluvial	131	natuarl levees	silty and clayey alluvium	moderately well	moderately slow
Goldman	Mississippi River Alluvial	131	older floodplains or low terraces	alkaline alluvium	moderately well	moderate
Gore	Coastal Plain	133B	Pleistocene terraces	clayey alluvium	moderately well	very slow
Gramercy	Mississippi River Alluvial	131	alluvial plains	clayey over fine-silty alluvium	poor	very slow
Grenada	Loess Hills	134	uplands & terraces	loess	moderately well	moderate
Groom	Stream Alluvial (Flatwoods)	133B	Pleistocene terraces	silty & loamy sediments	poor	moderately slow
Gueydan	Coastal Marsh	151	freshwater marshes	clayey alluvium	poor	very slow
Gurdon	Coastal Plain	133B	Pleistocene terraces	silty alluvium	poor	moderate
Guyton	Stream Alluvial (C. Plain)	133A, 133B, 151, 152A, 152B	floodplains on Pleistocene terr.	silty alluvium	poor	slow
Hackberry	Coastal Marsh	151	beach ridges	loamy & sandy beach deposits	poor	moderate
Haggerty	Stream Alluvial (C. Plain)	133B	Pleistocene terraces	sandy & loamy fluvial sediments	poor	moderately rapid
Harahan	Mississippi River Alluvial	131, 151	natural levees	clayey alluvium	poor	very slow
Harleston	Coastal Plain	133B	uplands & terraces	loamy sediments	moderately well	moderate

Soil Series	Soil Area	MLRA	Landscape Setting	Parent Material	Drainage	Permeability
Hebert	Ouachita River Alluvial	131	natural levees	silty alluvium	poor	moderately slow
Herty	Coastal Plain	133B	uplands	acid clays & silty clays	poor	very slow
Hornbeck	Coastal Plain	133B	mid-Teriary uplands	clayey, calcareous sediments	moderately well	slow
Iberia	Mississippi River Alluvial	131	natural levees	alkaline clayey alluvium	poor	very slow
Iota	Coastal Prairie	150A	Pleistocene terraces	loamy and clayey alluvium	well	very slow
Iuka	Stream Alluvial (C. Plain)	133A, 133B, 152A	floodplains	sandy or loamy alluvium	moderately well	moderate
Jeanerette	Loess Hills	134	Pleistocene terraces	loess	poor	moderately slow
Jena	Stream Alluvial (C. Plain)	133A, 133B	natural levees	acid, loamy alluvium	well	moderate
Judice	Coastal Prairie	150A	Pleistocene terraces	clayey sediments	poor	very slow
Kaplan	Coastal Prairie	150A, 150B	Pleistocene terraces	sediments	poor	slow
Keiffer	Coastal Plain	133B	uplands	calcareous marine sediments	well	slow
Keithville	Coastal Plain	133B	uplands	loamy & clayey sediments	moderately well	very slow
Kenefick	Flatwoods	150A, 152B	Pleistocene terraces	sandy and loamy sediments	well	moderate
Kenner	Coastal Marsh	151	freshwater marshes	OM stratified with clayey alluv.	very poor	very slow
Kinder	Coastal Prairie	150A, 152B	Pleistocene terraces	loamy alluvium	poor	slow
Kirbyville	Coastal Plain	152B	uplands	loamy sediments	moderately well	moderate
Kirvin	Coastal Plain	133B	uplands	acid, stratified sandstone	well	moderately slow
Kisatchie	Coastal Plain	133A, 133B	uplands	acid clays & silty clays	well	very slow
Kleinpeter	Mississippi River Alluvial	134	Pleistocene terraces	loess	moderately well	moderate
Kolin	Coastal Plain	133A, 133B	stream terraces	silty over clayey sediments	moderately well	slow
Lafe	Flatwoods	131A, 134	Pleistocene terraces	loamy sediments	poor	very slow
Lafitte	Coastal Marsh	151, 152A	saltwater marshes	OM over clayey sediments	very poor	rapid (drained)
Larose	Coastal Marsh	151	freshwater marshes	clayey sediments	very poor	very slow
Larue	Coastal Plain	133B	uplands & terraces	sandy & loamy sediments	well	moderate
Latanier	Red River Alluvial	131	alluvial plains	clayey over loamy alluvium	poor	very slow
Latonia	Flatwoods	133A, 133B, 152A	uplands & terraces	sandy & loamy sediments	well	moderately rapid
Leaf	Coastal Plain	133A, 133B, 152A	uplands	marine & stream clayey sediments	poor	very slow
Lebeau	Red River Alluvial	131	backswamps	clayey alluvium	poor	very slow
Letney	Coastal Plain	133B	uplands	sandy and loamy sediments	well	moderately rapid
Leton	Coastal Prairie	150A	depressions	loamy alluvium	poor	slow
Lexington	Loess Hills	133A, 134	uplands & terraces	loess over loamy sediments	well	moderate
Libuse	Loess Hills	133B	uplands and terraces	loess over sediments	moderately well	moderate
Liddieville	Loess Hills	134	Pleistocene terraces	loamy sediments	well	moderate
Litro	Stream Alluvial (C. Plain)	133B	floodplains	acid, clayey alluvial sediments	poor	very slow
Loreauville	Mississippi River Alluvial	131	natural levees	loamy sediments	poor	moderately slow

Soil Series	Soil Area	MLRA	Landscape Setting	Parent Material	Drainage	Permeability
Loring	Loess Hills	134	uplands & terraces	loess	moderately well	slow
Lotus	Stream Alluvial (C. Plain)	133B	upland alluvial plains	sandy deposits	excessive	rapid
Lucy	Coastal Plain	133A, 133B	uplands	sandy and loamy sediments	well	moderate
Lytle	Coastal Plain	133A, 134	uplands	loess	well	moderate
Mahan	Coastal Plain	133B	uplands	loamy & Clayey marine sediments	well	moderate
Malbis	Coastal Plain	133B, 152B	uplands	loams and sandy clays	moderately well	moderate
Mamou	Coastal Plain	150A	natural levees	silty & sandy deltaic alluvium	poor	slow
Mantachie	Stream Alluvial (C. Plain)	133B, 152B	floodplains	loamy alluvium	poor	moderate
Maurepas	Coastal Marsh	131	swamps	woody plant remains	very poor	rapid (drained)
Mayhew	Coastal Plain	133B	uplands	acid, clayey sediments over shale	poor	very slow
Mckamie	Coastal Plain	133B	Pleistocene terraces	clayey alluvium	well	very slow
McLaurin	Coastal Plain	133A, 133B	uplands	loamy marine or stream sediments	well	moderate
Memphis	Loess Hills	134	uplands & terraces	loess	well	moderate
Mer rouge	Ouachita River Alluvial	131	floodplains	clacareous, silty alluvium	moderately well	moderately slow
Mermentau	Coastal Marsh	151	low ridges in brackish marshes	clayey over loamy alluvium	poor	very slow
Merryville	Coastal Plain	133B, 152B	stream terraces	stratified loamy and sandy alluvium	poor	slow
Messer	Flatwoods	152B	Pleistocene mounds & ridges	silty alluvium	moderately well	slow
Metcalf	Flatwoods	133B	interstream divides	loamy & clayey sediments	poor	very slow
Meth	Coastal Plain	133B	uplands	clayey & loamy deltaic deposits	well	moderately slow
Mhoon	Mississippi River Alluvial	131	floodplains	alkaline alluvium	poor	slow
Midland	Coastal Prairie	150A	Pleistocene terraces	clayey sediments	poor	very slow
Mollicy	Flatwoods	133B	Pleistocene terraces	loamy alluvial sediments	poor	moderately slow
Moreland	Red River Alluvial	131, 133B	backswamps	clayey sediments	poor	very slow
Morey	Coastal Prairie	150A	Pleistocene terraces	deltaic alluvium	poor	slow
Morganfield	Mississippi River Alluvial	134	floodplains	silty alluvium	well	moderate
Morse	Coastal Plain	133B	uplands	calcareous, clayey alluv. sed.	well	very slow
Mowata	Coastal Prairie	150A	depressional areas	silty & clayey alluvium	poor	very slow
Muskogee	Flatwoods	131, 133B	stream & marine terraces	silty over clayey sediments	moderately well	slow
Myatt	Flatwoods	133B, 152A	upland flats & stream terraces	marine or fluvial sediments	poor	moderate
Nacogdoches	Coastal Plain	133B	uplands	glauconitic sediments	well	moderate
Natchez	Mississippi River Alluvial	134	uplands	loess	well	moderate
Natchitoches	Coastal Plain	133B	uplands	glauconitic sediments	well	very slow

Soil Series	Soil Area	MLRA	Landscape Setting	Parent Material	Drainage	Permeability
Necessity	Loess Hills	134	Pleistocene terraces	loamy sediments	poor	slow
Newellton	Mississippi River Alluvial	131	alluvial plains	alkaline alluvium	poor	slow
Niwana	Flatwoods	133B, 152B	uplands	loamy sediments	well	moderate
Norwood	Red River Alluvial	131, 150A	alluvial plains	loamy sediments	well	very slow
Nugent	Stream Alluvial (C. Plain)	133A, 133B, 152A, 152B	floodplains	sandy alluvium	excessive	moderately rapid
Ochlockonee	Stream Alluvial (C. Plain)	133A, 133B, 152B	floodplains	sandy or loamy alluvium	well	moderate
Oktibbeha	Coastal Plain	133A, 133B	Blackland Prairies	acid clay over marl or chalk	moderately well	very slow
Olivier	Loess Hills	133B, 134	Pleistocene terraces	loess	poor	moderately slow
Olla	Coastal Plain	133A, 133B	uplands	loamy deposits	well	moderate
Ora	Coastal Plain	133B	uplands	marine & fluvial deposits	moderately well	moderate
Osier	Stream Alluvial (C. Plain)	133A, 133B	floodplains	sandy alluvium	poor	rapid
Ouachita	Stream Alluvial (Flatwoods)	133B	floodplains	loamy alluvium	well	moderate
Oula	Coastal Plain	133B	uplands	acid, clayey marine sediments	well	very slow
Patoutville	Loess Hills	134	Pleistocene terraces	loess	poor	slow
Perry	Ouachita River Alluvial	131	backswamps	clayey alluvium	poor	very slow
Peveto	Coastal Marsh	151	beach ridges	sand & shell	well	very rapid
Pheba	Coastal Plain	133A, 133B	uplands	marine or fluvial sediments	poor	moderate
Pineisland	Coastal Prairie	150A	natural levees	loamy alluvium	well	slow
Pinetucky	Coastal Plain	133B	uplands	loamy coastal plain sediments	moderately well	moderately slow
Placedo	Coastal Marsh	150A, 150B	saltwater marshes	clayey alluvium	very poor	very slow
Portland	Ouachita River Alluvial	131, 133B	backswamps	clayey & silty alluvium	poor	very slow
Prentiss	Flatwoods	133A, 133B	marine & fluvial terraces	stratified marine or fluv. dep.	moderately well	moderate
Providence	Loess Hills	133A, 134	uplands	loess & sediments	moderately well	moderate
Rayburn	Coastal Plain	133B	uplands	acid clay & silty clay	moderately well	very slow
Rexor	Coastal Plain	119	uplands	loamy alluvium	moderately well	moderate
Rigolette	Coastal Plain	133B	uplands	Pleistocene over Tertiary sed.	poor	moderate
Rilla	Ouachita River Alluvial	131	natural levees	silty alluvium	well	moderate
Rita	Coastal Marsh	151	drained freshwater marshes	OM over clayey sediments	poor	very slow
Robinsonville	Mississippi River Alluvial	131	floodplains	loamy or sandy alluvium	well	moderate
Rosebloom	Stream Alluvial (Flatwoods)	134	floodplains	silty alluvium	poor	slow
Roxana	Red River Alluvial	131	natural levees	stratified loamy alluvium	well	moderate
Ruple	Coastal Plain	133B	uplands	sideritic, clayey marince sed.	well	moderate
Ruston	Coastal Plain	133A, 133B	uplands	sandy loam & sandy clay loam	well	moderate
Sacul	Coastal Plain	133A, 133B	uplands	acid, strat. loamy & clayey dep.	well	slow

Soil Series	Soil Area	MLRA	Landscape Setting	Parent Material	Drainage	Permeability
Sailes	Coastal Plain	133B	uplands	loamy marine sediments	well	moderate
Sardis	Coastal Plain	133B	floodplains	loamy alluvium	poor	moderate
Satsuma	Flatwoods	134, 152A	Pleistocene terraces	mixed loess & loamy stream dep.	poor	moderate
Saucier	Flatwoods	133A, 133B, 152A	uplands	loamy & clayey marine deposits	well	slow
Savannah	Coastal Plain	133A, 133B	uplands & marine & fluvial terr.	marine & fluvial deposits	well	moderate
Sawyer	Coastal Plain	133A, 133B	uplands & terraces	stratified loamy & clayey sedments	moderately well	slow
Scatlake	Coastal Marsh	151	saltwater marshes	clayey & organic sediments	very poor	very slow
Schriever	Mississippi River Alluvial	131	natural levees and backswamps	clayey alluvium	poor	very slow
Severn	Red River Alluvial	131, 133B	floodplains	calcareous loamy & sandy alluvium	well	moderately rapid
Sharkey	Mississippi River Alluvial	131	natural levees & backswamps	clayey alluvium	poor	very slow
Shatta	Coastal Plain	133B	Pleistocene terraces	silty sediments	moderately well	moderate
Smithdale	Coastal Plain	133A, 133B	uplands	loamy marine or stream sediments	well	moderate
Smithton	Coastal Plain	133A, 133B	Pleistocene terraces	loamy alluvial sediments	poor	moderately slow
Solier	Red River Alluvial	131	Pleistocene low terraces	clayey over silty sediments	poor	very slow
Sonnier	Red River Alluvial	131C, 133B	floodplains	clayey sediments	poor	very slow
Sostien	Stream Alluvial	131	waterway spoil banks	dredged clayey sediments	poor	very slow
Springfield	Flatwoods	134	uplands and Pleistocene terraces	silty sediments	poor	slow
Sterlington	Ouachita River Alluvial	131	natural levees	silty alluvium	well	moderate
Stough	Flatwoods	133A, 133B, 152A	uplands & marine & fluvial terr.	marine or fluvial sediments	poor	moderately slow
Sugartown	Coastal Plain	133B, 152B	uplands	clayey alluvium	moderately well	slow
Sumter	Coastal Plain	133A	Blackland Prairies	marly clays & chalk	well	slow
Sweatman	Coastal Plain	133A	uplands	saly clays & loamy sediments	well	moderately slow
Tangi	Loess Hills	134	uplands	loess over loamy sediments	moderately well	moderate
Tenot	Loess Hills	134	stream divides	loess	poor	slow
Tensas	Mississippi River Alluvial	131	low natural levees	stratified alluvium	poor	very slow
Timbalier	Coastal Marsh	151	saltwater marshes	decomposed organic material	very poor	rapid (drained)
Tippah	Mississippi River Alluvial	131A, 133A, 133B, 134	uplands	silty, acid clayey sediments	moderately well	moderate
Toula	Loess Hills	133A, 134	interstream divides	loess over loamy sediments	moderately well	moderate
Trep	Coastal Plain	133B	uplands	sandy and loamy sediments	moderately well	moderately slow
Tunica	Mississippi River Alluvial	131	floodplains	clayey over loamy alluvium	poor	very slow
Una	Stream Alluvial (C. Plain)	133A, 133B	floodplains	acid, clayey alluvium	poor	very slow

Soil Series	Soil Area	MLRA	Landscape Setting	Parent Material	Drainage	Permeability
Urbo	Stream Alluvial (C. Plain)	133B, 152B	floodplains	clayey alluvium	poor	very slow
Vacherie	Mississippi River Alluvial	131	floodplains	silty over clayey alluvium	poor	very slow
Vaiden	Coastal Plain	133A	uplands & terraces	acid clays over chalk or marl	poor	very slow
Verdun	Loess Hills	134	Pleistocene terraces	loess	poor	very slow
Vick	Loess Hills	133B, 134	Pleistocene terraces	thin loess over sediments	poor	slow
Vidrine	Coastal Prairie	150A, 152B	Pleistocene mounds & ridges	silty & clayey alluvium	poor	slow
Waller	Flatwoods	133B, 150A, 152B	depressional areas	loamy sediments	poor	slow
Warnock	Coastal Plain	133B	uplands	loamy marine sediments	moderately well	moderate
Watsonia	Coastal Plain	133B	Blackland Prairies	clay deposits over chalk or marl	well	very slow
Waverly	Stream Alluvial (Loess H.)	134	floodplains	silty alluvium	poor	moderate
Westwego	Coastal Marsh	151	drained swamps	OM & clayey alluvium	poor	very slow
Weyanoke	Mississippi River Alluvial	134	stream terraces	silty alluvium	well	moderate
Wolfpen	Coastal Plain	133B	uplands	lentil sands	well	moderate
Woodtell	Coastal Plain	133B	uplands	acid, strat. loamy & clayey dep.	moderately well	very slow
Wrightsville	Flatwoods	133B, 150A, 152A, 152B	depressions on old stream terr.	silty & clayey alluvium	poor	very slow
Yorktown	Stream Alluvial	131	backswamps	clayey alluvium	very poor	very slow
Zachary	Stream Alluvial (Loess H.)	134	floodplains	silty alluvium	poor	slow
Zenoria	Stream Alluvial (C. Plain)	131, 133B	low stream terraces	clayey over loamy alluvium	poor	slow

Table 3. Taxonomic key for soils of Louisiana.

	Order: Entisols		
Suborder	**Great Group**	**Subgroup**	**Series**
Aquents	Fluvaquents	Aeric	Falaya, Vacherie
		Thapto-Histic	Westwego
		Typic	Bibb, Cypress, Gueydan, Placedo
		Vertic	Sostien
	Hydraquents	Typic	Arat, Balize, Barbary, Creole, Gentilly, Larose,
		Sodic	Bancker, Scatlake
	Psammaquents	Typic	Osier
Fluvents	Udifluvents	Aquic	Cocodrie
		Oxyaquic	Caplis
		Typic	Bruno, Morganfield, Nugent, Ochlockonee, Robinsonville, Roxana, Severn
Psamments	Quartzipsamments	Aquic	Lotus
		Typic	Bigbee, Alaga
	Udipsamments	Aquic	Felicity, Iuka
		Typic	Cheniere, Crevasse, Peveto
	Order: Alfisols		
Suborder	**Great Group**	**Subgroup**	**Series**
Aqualfs	Albaqualfs	Aeric	Mamou, Springfield, Tenot
		Typic	Crowley, Zachary
		Vertic	Anacoco
	Endoaqualfs	Aeric	Dupuy, Galvez
		Mollic	Loreauville
		Typic	Amagon, Dundee, Forestdale, Ged
	Epiaqualfs	Aeric	Acadia, Acy, Essen, Frozard, Groom, Hebert, Patoutville, Solier
		Typic	Rigolette
		Vertic	Baldwin, Kaplan, Midland, Tensas
	Glossaqualfs	Aeric	Bursley
		Oxyaquic	Acadiana
		Typic	Basile, Besner, Caddo, Calhoun, Fountain, Frost, Gilbert, Guyton, Kinder, Leton, Merryville, Mowata, Waller, Wrightsville
	Natraqualfs	Glossaquic	Lafe

Order: Alfisols

Suborder	Great Group	Subgroup	Series
		Glossic	Bonn, Brimstone, Deerford, Foley, Verdun
	Vermaqualfs	Typic	Gessner
Udalfs	Fragiudalfs	Aquic	Bude
		Oxyaquic	Loring, Providence
		Typic	Gigger, Libuse
	Fraglossudalfs	Aquic	Calloway, Fluker, Necessity, Olivier
		Oxyaquic	Grenada, Pineisland
	Glossudalfs	Aquic	Egypt, Fred, Vidrine
		Fragic	Duralde
		Haplic	Elysian, Messer
		Oxyaquic	Kleinpeter
	Hapludalfs	Albaquic	Cadeville, Corrigan
		Aquic	Goldman
		Glossaquic	Colyell, Coteau, Frizzell, Glenwild, Satsuma, Vick
		Oxyaquic	Glenwild, Rexor
		Typic	Gallion, Kisatchie, Memphis, Rilla, Sterlington
		Ultic	Dexter, Dossman, Feliciana, Kenefick, Lexington, Liddieville, Meth, Sugartown
		Vertic	Eastwood, Herty, Iota, Mckamie, Natchitoches, Oula, Rayburn, Woodtell
	Paleudalfs	Aeric	Falkner
		Aquic	Duson, Muskogee, Tippah
		Arenic	Larue, Wolfpen
		Glossaquic	Abita, Glenmora, Keithville, Kolin, Metcalf
		Glossic	Bernaldo, Evangeline
		Lamellic	Flo
		Psammetic	Bienville
		Rhodic	Nacogdoches
		Typic	Attoyac, Bistineau, Darbonne
		Vertic	Boswell, Forbing, Gore

Order: Ultisols

Suborder	Great Group	Subgroup	Series
Aquults	Albaquults	Typic	Leaf
	Endoaquults	Aeric	Haggerty, Zenoria
		Typic	Myatt

Order: Ultisols

Suborder	Great Group	Subgroup	Series
	Paleaquults	Typic	Smithton
Udults	Fragiudults	Glossaquic	Pheba
		Glossic	Prentiss
		Typic	Ora, Savannah, Shatta, Tangi, Toula
	Hapludults	Aquic	Mollicy, Sacul
		Typic	Bassfield, Bearhead, Cahaba, Darley, Kirvin, Latonia, Mahan, Olla, Smithdale, Sweatman
	Kandiudults	Arenic	Lucy
	Rhodudults	Typic	Ruple
	Paleudults	Aquic	Angie, Bodcau, Gurdon, Harleston, Sawyer
		Arenic	Boykin, Briley, Letney, Trep
		Fragiaquic	Stough
		Lamellic	Betis
		Oxyaquic	Brule, Kirbyville
		Plinthaquic	Beauregard, Saucier
		Plinthic	Bowie, Doucette, Malbis, Pinetucky
		Typic	Blevins, Dubach, Lytle, Mclaurin, Niwana, Ruston, Sailes, Warnock

Order: Inceptisols

Suborder	Great Group	Subgroup	Series
Aquepts	Epiaquepts	Fluvaquentic	Cancienne, Newellton
		Typic	Una
		Vertic	Portland, Tunica, Urbo, Yorktown
	Endoaquepts	Aeric	Hackberry
		Fluvaquentic	Mhoon, Rosebloom, Waverly
		Fluventic	Arkabutla, Carville, Commerce, Convent, Mantachie
		Typic	Mermentau
		Vertic	Dowling, Fausse, Harahan, Rita
Udepts	Dystrudepts	Fluvaquentic	Sardis
		Fluventic	Cascilla, Jena, Ouachita
	Eutrudepts	Dystric	Weyanoke
		Fluventic	Coushatta, Norwood
		Oxyaquic	Bruin

Order: Inceptisols

Suborder	Great Group	Subgroup	Series
		Rendollic	Keiffer, Sumter
		Typic	Natchez

Order: Histosols

Suborder	Great Group	Subgroup	Series
Saprists	Haplosaprists	Fluvaquentic	Kenner
		Terric	Allemands, Bellpass, Carlin, Clovelly, Delcomb
		Typic	Lafitte, Maurepas, Timbalier

Order: Mollisols

Suborder	Great Group	Subgroup	Series
Aquolls	Argiaquolls	Typic	Andry, Jeanerette
Udolls	Argiudolls	Aquertic	Sonnier
		Aquic	Armistead
		Oxyaquic	Morey
		Typic	Caspiana, Mer rouge

Order: Vertisols

Suborder	Great Group	Subgroup	Series
Uderts	Dystruderts	Aquic	Bayoudan, Bellwood, Vaiden
	Hapluderts	Aquic	Buxin, Hornbeck, Lebeau
		Chromic	Morse
		Watsonia	Leptic
		Oxyaquic	Latanier, Moreland
Aquerts	Dystraquerts	Chromic	Alligator, Ashford, Litro, Mayhew, Oktibbeha
	Epiaquerts	Aeric	Bossier
		Chromic	Gramercy, Perry, Schriever, Sharkey
		Typic	Iberia, Judice

Table 4. Added and deleted soil series in Louisiana since Amacher et al. (1989) and soils recognized, but with no mapped extent.

Soil Series Added	Soil Series Deleted	No Data/Extent
Acadiana	Benndale	Bussy
Ashford	Darco	Chastain
Bearhead	Darden	Colyell
Besner	Dela	Debute
Bigbee	Hollywood	Dubbs
Bistineau	Kaufman	Encrow
Blevins	Killian	Eustis
Bodcau	Kullit	Goodwill
Bossier	Malbis	Hannahatchee
Brule	Mashulaville	Idee
Bruno	Ocklockonee	Ijam
Cancienne	Pelham	Kalmia
Caplis	Rosalie	Kenney
Carville	Troup	Kildare
Cypress		Kurth
Doucette		Lakeland
Dowling		Lucedale
Dubach		Luverne
Dupuy		Miller
Duson		Mollville
Feliciana		Natalbany
Gessner		Oprairie
Glenwild		Orangeburg
Gramercy		Palm Beach
Gurdon		Pelham
Hornbeck		Roebuck
Iota		Scotlandville
Keiffer		Shubuta
Kenefick		Socagee
Kirbyville		Spurger
Kleinpeter		Summerfield
Letney		Susquehanna
Lucy		Thibaut
Lytle		Tillou
Merryville		Timpson
Morganfield		Vaucluse
Natchez		Vicksburg
Niwana		Yahola
Pineisland		
Pinetucky		
Sailes		
Sardis		
Schriever		
Smithton		
Sonnier		
Sugartown		
Tippah		
Trep		
Warnock		
Weyanoke		
Wolfpen		

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Figure 3. Louisiana annual precipitation (Soil Survey Staff, 2008a).

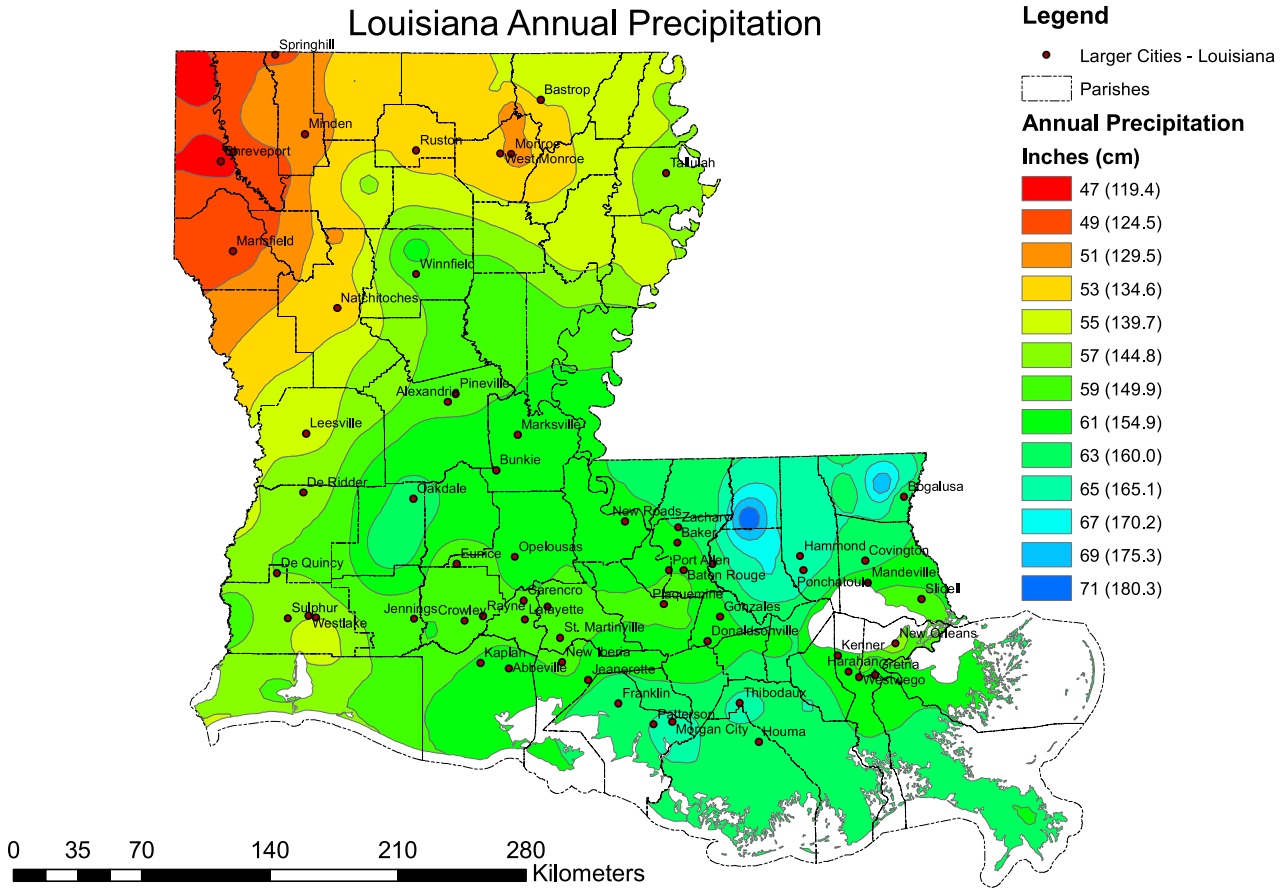


Figure 4. Soil temperature regimes of Louisiana (USDA-SSQAS, 1994).

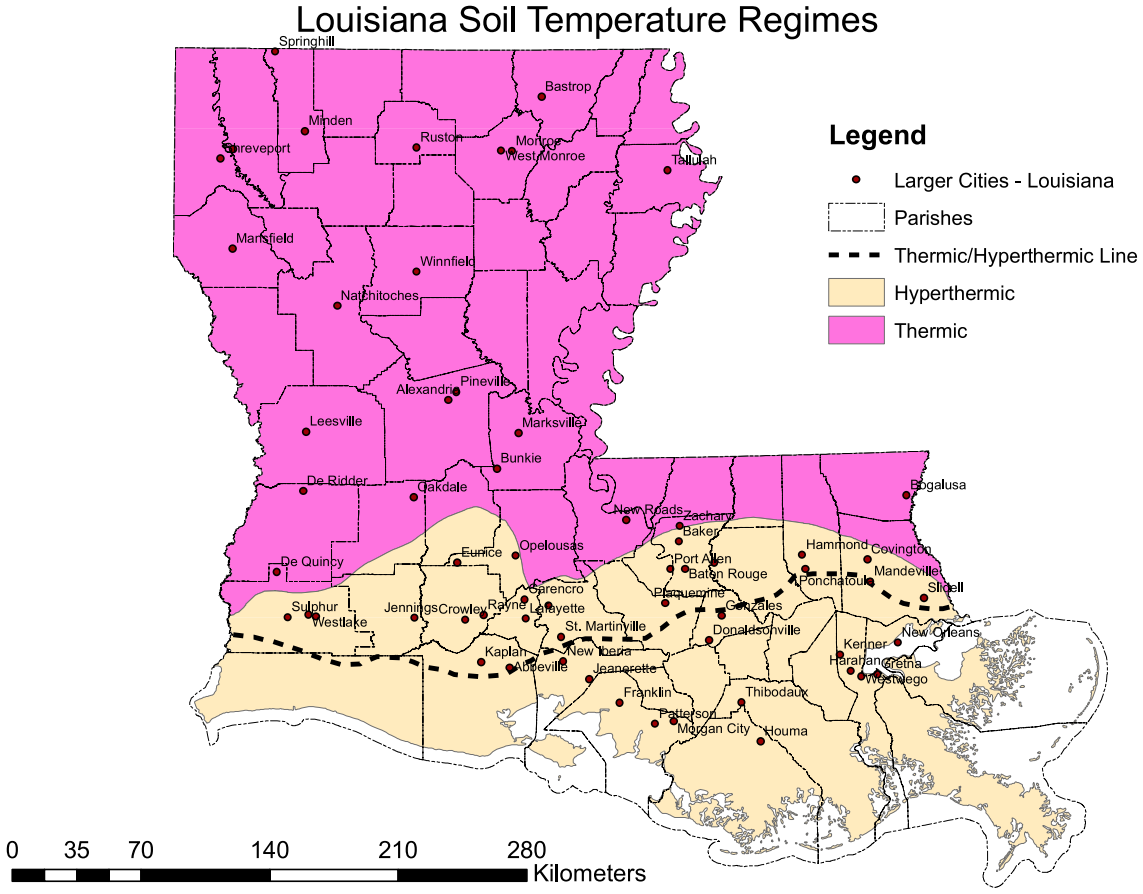


Figure 5. Soil moisture regimes of Louisiana (USDA-SSQAS, 1994).

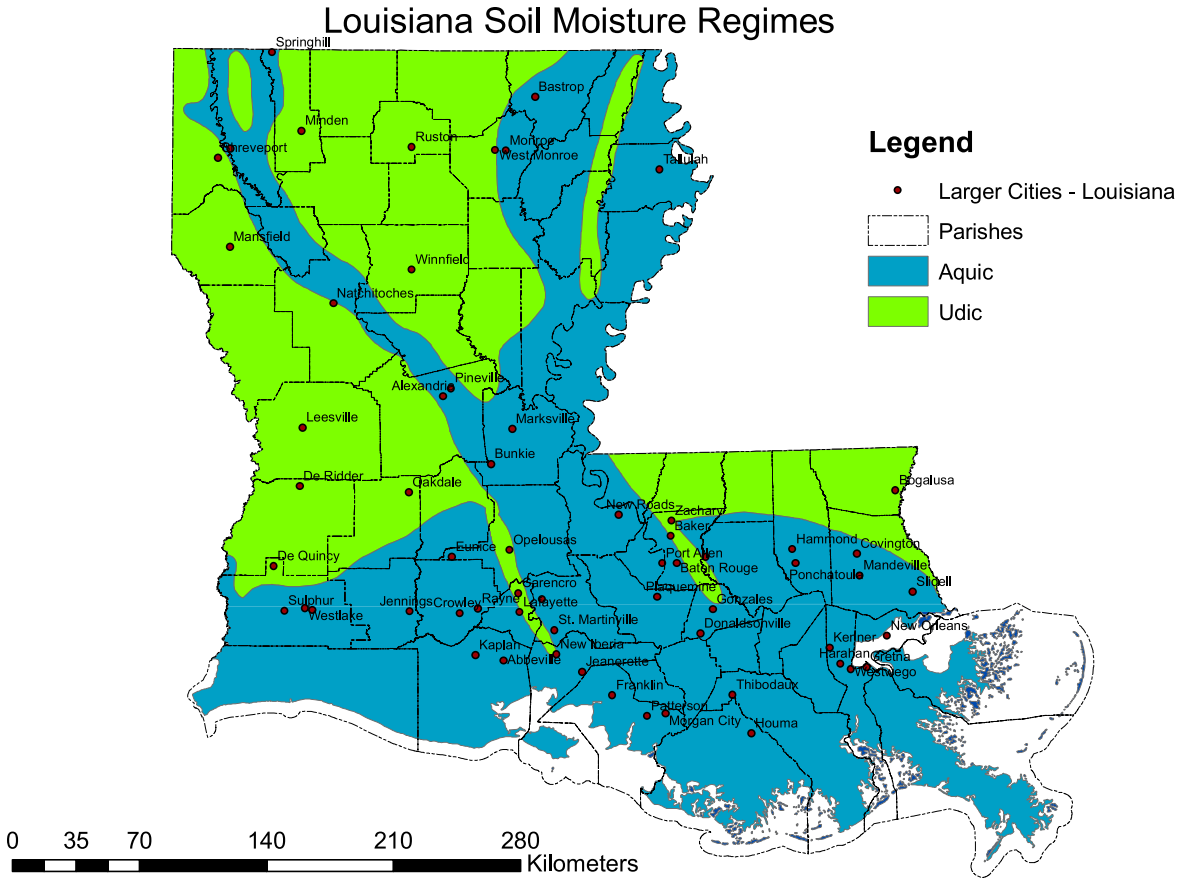
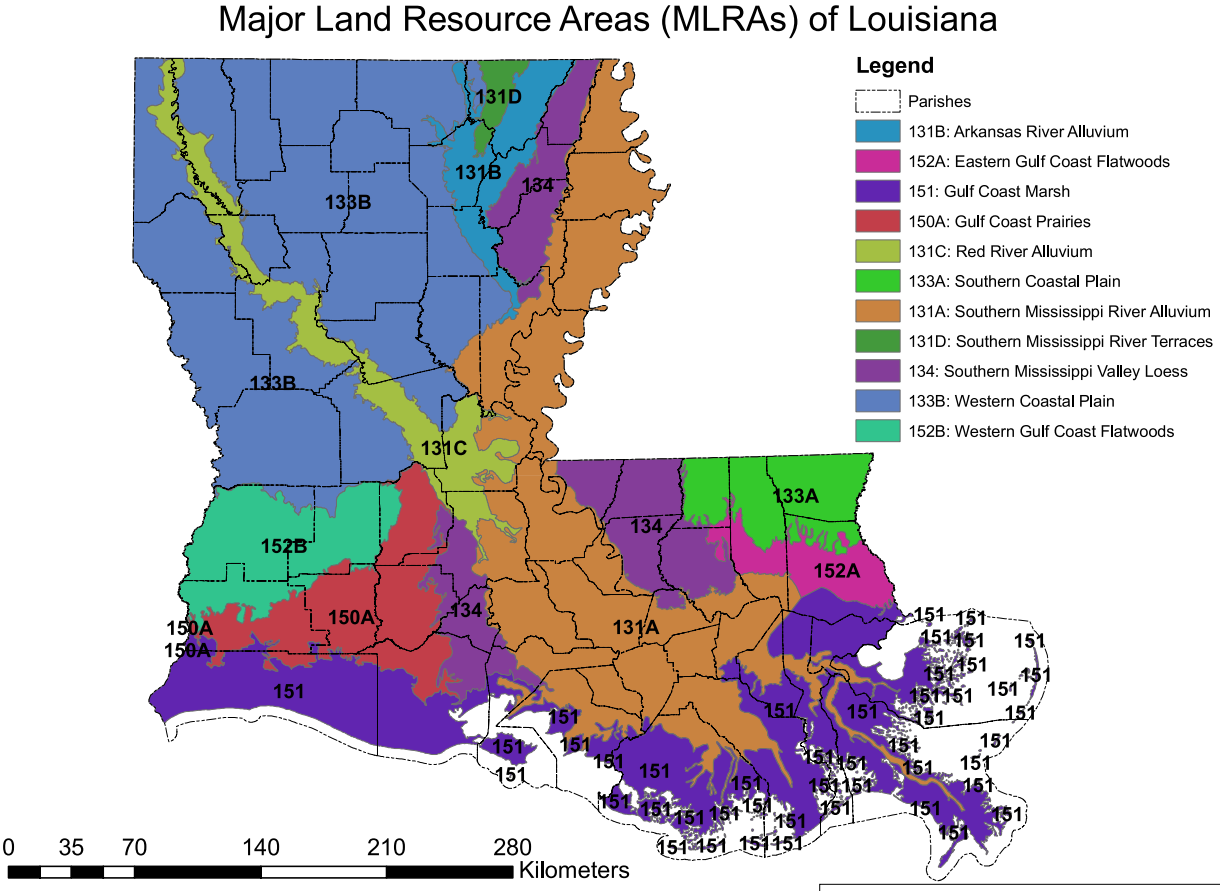


Figure 6. Major land resource areas of Louisiana (Soil Survey Staff, 2008b).



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