Tickfaw Watershed - 08070203
Ecoregion Descriptions

65. Southeastern Plains

Although mostly tree-covered, these irregular plains have a mosaic of cropland, pasture, woodland, and forest land cover. Natural vegetation in the southern portion was predominantly longleaf pine, with smaller areas of oak-pine and southern mixed forest. In central and northern Mississippi, oak-pine and some western mixed mesophytic forests were dominant. In states to the east of Mississippi, the Cretaceous- or Tertiary-age sands, silts, and clays of this region contrast geologically with the older metamorphic and igneous rocks of the Piedmont (45), and with the Paleozoic limestone, chert, and shale of the Interior Plateau (71). The region has thinner loess than Ecoregion 74 to the west, and elevations and relief are greater than in the Southern Coastal Plain (75) and Mississippi Alluvial Plain (73). Streams are low- to moderate-gradient with mostly sandy substrates.

65f. The Southern Pine Plains and Hills ecoregion extends across southern Mississippi and Alabama and a portion of eastern Louisiana, covering what was once part of the longleaf pine belt. Today, almost all of the southern mixed forest and longleaf pine forests are gone, replaced mostly by slash and loblolly pine plantations. The longleaf pine forest provided habitat for now rare or endangered species such as the red-cockaded woodpecker and gopher tortoise. Wet savannas and bogs contained an array of colorful wildflowers: red lilies, orange milkweeds, yellow pitcher plants, lavender butterworts, and purple sundews. In Louisiana, subsurface materials of the region are composed mostly of Pliocene or early Pleistocene-age deposits that are generally sandy, gravelly, and porous. Soils are mostly well to moderately well drained Ultisols and Alfisols with fine sandy loam or silt loam surface texture. Some hay and cattle ranches occur, and some poultry and dairy production.

73. Mississippi Alluvial Plain

This riverine ecoregion extends from southern Illinois, at the confluence of the Ohio River with the Mississippi River, south to the Gulf of Mexico. The Mississippi River watershed drains all or parts of thirty-one states, two Canadian provinces, and approximately1,243,000 square miles before the river finally reaches the Gulf. The Mississippi Alluvial Plain is mostly a broad, flat alluvial plain with river terraces, swales, and levees providing the main elements of relief. Soils are typically finer-textured and more poorly drained than the upland soils of adjacent Ecoregions 35 and 74, although there are some areas of coarser, better-drained soils. Winters are mild and summers are hot, with temperatures and precipitation increasing from north to south. Bottomland deciduous forest vegetation covered the region before much of it was cleared for cultivation. The ecoregion contained one of the largest continuous wetland systems in North America. The widespread loss of forest and wetland habitat, however, has impacted wildlife and reduced bird populations, although it is still a major bird migration corridor. Today, constructed levees restrict the river from overflowing, opening large areas for extensive agricultural use. Almost all of the region is in cropland, and it receives large inputs of pesticides. In Louisiana, soybeans, cotton, and rice are the major crops in the northern and central parts and sugarcane in the dominant crop

in the southern part. Between the levees that parallel the Mississippi River is a corridor known as the "batture lands", the area between the river channel and the levees. The batture lands are hydrologically connected to the Mississippi River, are flood-prone, and contain remnant habitat for "big river" species (e.g., pallid sturgeon) as well as river-front plant communities. They are too narrow to map as a separate level IV ecoregion.

73n. The Inland Swamps ecoregion marks a transition, ranging from the fresh waters of the southern backswamps (73m) at the northern extent of the intratidal basins to the brackish and saline waters of the deltaic marshes of ecoregion 73o; it includes a large portion of the Atchalafaya Basin.. Soils are mostly poorly or very poorly drained, clayey Entisols and Vertisols. The natural vegetation of swamp forest communities is dominated by bald cypress and water tupelo, which are generally intolerant of brackish water except for short periods. In areas where freshwater flooding is more prolonged, the vegetative community is dominated by grasses, sedges, and rushes. This region contains the largest bottomland hardwood forest swamps in North America. Deposits include organic clays and peats up to 20 feet thick, and inter-bedded freshwater and brackish-water carbonaceous clays. The levees in place on either side of the Mississippi River have diverted much of the river flow from its natural tendency to flow into the Atchafalaya Basin. Large concrete structures prevent diversion into the Atchafalaya River, and flow from the Red River is also controlled. While this helps control flooding, it has also modified the region and contributed to the loss of wetland habitat.

74. Mississippi Valley Loess Plains

This ecoregion stretches from the Ohio River in western Kentucky to Louisiana. It consists primarily of irregular plains, some gently rolling hills, and bluffs near the Mississippi River. Thick loess is one of the distinguishing characteristics. The bluff hills in the western portion contain soils that are very deep, steep, silty, and erosive. Flatter topography is found to the east, and streams tend to have less gradient and more silty substrates than in the Southeastern Plains ecoregion (65). Oak-hickory, oak-hickory-pine, and some mixed mesophytic forests were the dominant natural vegetation. Agriculture is now the typical land cover in the Kentucky and Tennessee portion of the region, while in Mississippi and Louisiana there is a mosaic of forest and cropland.

74c. The Southern Rolling Plains ecoregion occurs on younger, Miocene- and Pliocene-age geologic formations (almost exclusively Pliocene in Louisiana) compared to 74b to the north in Mississippi and Tennessee; and it has a warmer climate. The general climatic shift from 74b includes warmer average annual air temperatures, greater annual rainfall, and a transition to slightly warmer soils. The region has more irregular and dissected topography than the adjacent portion of the Loess Plains (74b) to the north that has more agriculture. Soils of this region reflect this diversity with Ultisols, Alfisols, and Entisols that are thinner than in 74a and 74b, resulting in slightly coarser surface textures. Land cover is mostly loblolly and shortleaf pine forest or loblolly and slash pine plantations. The forests have a higher concentration of pine than in 74a and 74b. Oil and gas production and exploration has been widespread in the region during the past fifty years. The eastern boundary of this region is broad, with a gradual transition to Ecoregion 65.

74d. The Baton Rouge Terrace ecoregion occurs on the Pleistocene Prairie Terraces and is lower in elevation and has flatter topography than Ecoregion 74c to the north. Similar to other parts of Ecoregion 74, loess is thicker to the west. The soils are mostly Alfisols with brown or grayish-brown, silt loam surfaces, that developed in the loess parent materials. The natural vegetation of this ecoregion was influenced by the different types occurring in adjacent regions, with some upland hardwoods to the northwest, some longleaf pine flatwoods to the east, and many areas of bottomland hardwoods and spruce pine/hardwood mixed forests. Large areas of the mixed pine-hardwood forest have now been cleared for pasture, cropland, and urban uses. Urban use makes up about fifty percent of the area.

75. Southern Coastal Plain

The Southern Coastal Plain extends from South Carolina and Georgia through much of central Florida, and along the Gulf coast lowlands of the Florida Panhandle, Alabama, Mississippi, and eastern Louisiana. From a national perspective, it appears to be mostly flat plains, but it is a heterogeneous region also containing barrier islands, coastal lagoons, marshes, and swampy lowlands along the Gulf and Atlantic coasts. In Florida, an area of discontinuous highlands contains numerous lakes. This ecoregion is lower in elevation with less relief and wetter soils than the Southeastern Plains (65). Once covered by a variety of forest communities that included trees of longleaf pine, slash pine, beech, sweetgum, southern magnolia, white oak, and laurel oak, land cover in the region is now mostly slash and loblolly pine with oak-gum-cypress forest in some low-lying areas, citrus groves in Florida, pasture for beef cattle, and urbanland.

75a. The Gulf Coast Flatwoods is a narrow region of nearly level terraces and alluvial and deltaic deposits composed of Quaternary-age sands and clays. Soils are a mix of poorly to moderately well drained Entisols, Alfisols, and Ultisols with loamy surfaces. Wet, sandy flats and broad depressions that are locally swampy are forested or in pine plantations, while some of the better-drained land has been cleared for pasture or crops. Dominant land uses include woodland, wildlife habitat, and urban. Historically, pine savannas with slash and longleaf pine and a variety of grasses, sedges, rushes, pitcher plants and orchids were common. A high natural fire frequency was typical, often sparked by lightning and fueled by grasses that maintained the more open savannas. The Louisiana portion of the region is outside the range of wiregrass found to the east, but contained longleaf pine/bluestem savannas.