Summary Table: Characteristics of the Ecoregions of Arkansas

35. SOUTH CENTRAL PLAINS

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and Bedrock	Soils: Order (Great Group)	Soils: Common Soil Series	Soils: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Vegetation	Land Cover and Land Use
35a. Tertiary Uplands	5761	Rolling plain with occasional low sandhills. Most streams do not flow in the summer but spring-fed streams in the sandhills have perennial flow.	100-500/ 50-300	Quaternary alluvium along streams. Poorly-consolidated Tertiary coastal plain and marginal marine deposits containing noncalcareous sand, silt, clay, and gravel are extensive and locally carbonaceous or glauconitic.	Ultisols (Hapludults, Paleudults, Fragiudults), Entisols (Quartzipsamments)	Sacul, Smithdale, Sawyer, Saffell, Savannah, Pikeville, Darco, Bowie. Most soils are well-drained. Soils tend to be low in nutrients and low in organic material. On sandy hills: Alaga, Kirvin, Briley, Sacul.	Thermic/ Udic	48-54	210-240	32/58; 70-94	Potential natural vegetation: oak–hickory–pine forest. Mixed shortleaf pine–loblolly pine forest and upland deciduous forest is native. Today, loblolly pine is dominant and shortleaf pine, upland oaks (e.g., white, post, and red oaks), hickories, and sweetgum occur. On sandhills: stunted trees with sparse ground cover; sandhill woodland communities include Arkansas, bluejack, and margaretta oaks. In riparian areas: bottomland forest.	Mostly commercial pine plantations, forest, pastureland, hayland, and woodland. Watermelons, peanuts, alfalfa, small grains, and vegetables are grown in limited areas. Poultry farming occurs. Oil and gas are produced in the region.
35b. Floodplains and Low Terraces	1409	Nearly level floodplains and low terraces. Natural levees, swales, oxbow lakes, and meander scars occur. Many areas are frequently flooded and wetlands are common.	50-250/ 10-50	Holocene alluvium.	On floodplains: Alfisols (Glossaqualfs), Inceptisols (Dystrudepts, Endoaquepts), Entisols (Udifluvents). On low stream terraces: Ultisols (Endoaquults, Albaquults, Paleaquults, Paleudults, Fragiudults), Alfisols (Glossaqualfs).	On frequently flooded floodplains: Guyton, Ouachita, Sardis, Wehadkee, Ochlockonee, Collins. On low stream terraces: Amy, Smithton, Sardis, Gurdon, Stough, Caddo, Prentiss, Leaf.	Thermic/ Aquic, some Udic	48-54	210-240	32/58; 70-94	Potential natural vegetation: southern floodplain forest and oak–hickory–pine forest. Native on better drained sites: southern red oak, white oak, hickories, and loblolly pine. Native on natural levees that are not subject to prolonged flooding: red maple, river birch, sycamore, and American elm. Native on periodically flooded sites: Nuttall oak, willow oak, sweet gum, water oak, swamp chestnut oak, Shumard oak, and green ash. Native on sites submerged for long periods: water hickory, green ash, and overcup oak. Native on sites flooded for very long periods or permanently flooded: bald cypress and swamp tupelo.	Mainly forested wetlands and deciduous forest. Cleared areas are primarily used as pastureland. On better-drained, flood protected sites: cropland producing hay, soybeans, corn, sorghum, cotton, and peanuts. Wetness and flooding are the main limitations to farming. Forest grazing is common.
35c. Pleistocene Fluvial Terraces	3352	Broad, flat to undulating stream terraces. Includes, from lowest to highest elevation, the Deweyville, Prairie, and Intermediate terrace levels. Dissection and age increases with elevation. Mounds occur on the Prairie Terrace. Seeps can occur where terrace levels abut. Stream water is stained by organic matter and is mildly acidic.	150-300/ 10-50	Quaternary windblown silt deposits (i.e., loess) and Pleistocene fluvial terrace deposits containing sequences of unconsolidated gravels, sandy gravels, sands, silty sands, silts, clayey silts, and clays.	Alfisols (Glossaqualfs, Fraglossudalfs, Paleudalfs, Fragiaqualfs), Ultisols (Endoaquults, Fragiudults, Paleaquults, Paleudults)	Wrightsville, Amy, Caddo, Pheba, Calloway, Grenada, Savannah, Smithton, Falkner, Henry, Prentiss, Stough. Clay-rich, poorly-drained soils are common. On flats: heavy soils are saturated during rainy periods and dry and hard at other times (i.e., hydroxeric). Locally, fragipans further inhibit drainage. On the Prairie Terrace: windblown silt deposits (i.e., loess) less than 18 inches thick overlie clayey subsoils.	Thermic/ Aquic, Udic	48-55	220-245	32/58; 70-94	Potential natural vegetation: oak–hickory–pine forest. On broad flats: extensive pine flatwoods adapted to seasonally wet conditions. They are often woodlands rather than forest and are dominated by loblolly pine and oaks; the seasonal wet-dry regime (i.e., hydroxeric regime) favors loblolly pine over shortleaf pine. On mounds: large pines. On the Deweyville Terrace: extensive hardwood wetlands. On the Prairie Terrace: extensive flatwoods, pine savanna, and, on extremely hydroxeric sites drained by back-cutting streams, some prairies.	Mainly forest, woodland, savanna, and wetland. Logging occurs. Cleared areas are used as pastureland, hayland, or cropland. Ecoregion 35c is an important breeding ground for amphibians.
35d. Cretaceous Dissected Uplands	1234	Nearly level to hilly uplands that are dissected by stream valleys. A few low cuestas occur; these asymmetric ridges have a short, steep escarpment on one side, and a long, gentle slope on the other.	100-550/ less than 50-350	Quaternary alluvium near streams. Poorly-consolidated, often calcareous, Cretaceous clays, sands, or gravels.	Ultisols (Hapludults, Fragiudults, Paleudults)	Smithdale, Sacul, Savannah, Sawyer, Saffell. Most soils are well- or moderately well-drained and prone to erosion if disturbed.	Thermic/ Udic	48-54	200-240	30/58; 69-94	Potential natural vegetation: oak–hickory–pine forest. The native vegetation is mixed pine and upland deciduous forest. In natural woods, shortleaf pine is more abundant than loblolly pine. On northern sites rich in cherty gravels from the Ouachita Mountains: shortleaf pine dominates.	Mostly woods and pastureland but a few prairie remnants occur. Important land uses include logging, livestock farming, and poultry production. A few areas are used for cultivated crops including corn, cotton, soybeans, hay, and small grains. Streams draining pastureland have lower water quality than those draining wooded areas.
35g. Red River Bottomlands	603	Broad, level to nearly level floodplains and low terraces with oxbow lakes, meander scars, backswamps, natural and artificial levees, and drainage ditches.	175-320/ 10-50	Holocene alluvium.	On floodplains: Entisols (Udifluvents). On broad flats and in slack water areas that were backswamps: Vertisols (Hapluderts, Epiaquerts). On natural levees: Alfisols (Hapludalfs), Mollisols (Argiudolls). On stream terraces and flats: Alfisols (Glossaqualfs, Epiaqualfs).	On floodplains: Severn, Oklared. On broad flats and in slack water areas that were backswamps: Billyhaw, Perry. On natural levees: Rilla, Caspiana. On terraces and broad flats: Wrightsville, Acadia.	Thermic/ Udic, Aquic	48-52	220-245	34-58; 70-94	Potential natural vegetation: southern floodplain forest. Native vegetation includes cherrybark oak, swamp chestnut oak, water oak, willow oak, Nuttall oak, sweetgum, eastern cottonwood, sycamore, hackberry, pecan, green ash, white ash, osage orange, elm, and Western species such as bur oak and Durand oak.	Mostly cropland and pastureland. Alfalfa, soybeans, grain sorghum, cotton, corn, and wheat are the main crops. On poorly-drained flats: some deciduous forest remnants. The Red River is almost continuously turbid.
35h. Blackland Prairie	576	Level to rolling. A few cuestas occur.	250-500/ less than 50-150	Cretaceous marls, chalks, and limestones.	Vertisols (Dystruderts), Inceptisols (Eutrudepts), Alfisols (Paleudalfs)	Oktibbeha, Sumter, Kipling; these soils formed in clayey calcareous sediments and are very slowly to slowly permeable.	Thermic/ Udic	48-54	200-240	30/58; 69-94	During and shortly after the Hypsithermal Period, prairie was common or dominant. At the beginning of the 19th century, both woodland and savanna were common and scattered, and small prairies occurred. Today, woodland composition is principally loblolly pine and shortleaf pine; red oak, white oak, post oak, sweetgum, and dogwood also occur. On droughty soils of cuesta scarps: remnants of prairie that are often degraded.	Hayland and, especially, pastureland are common. A few prairie remnants occur. Some blackland prairies have been restored such as in the Rick Evans Grandview Prairie Wildlife Management Area near Columbus.

36. OUACHITA MOUNTAINS

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and Bedrock	Soils: Order (Great Group)	Soils: Common Soil Series	Soils: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Vegetation	Land Cover and Land Use
36a. Athens Plateau	1573	Open hills and low, parallel, east to west trending ridges. Many streams run north to south, crossing the ridges. Waterfalls occur.	400-1100; uplands are lowest in the east/ usually 50-300; maximum 400	Quaternary colluvium. Mostly folded and faulted Mississippian shale interbedded with fine sandstone; Stanley Shale is common. Pennsylvanian Jackfork Sandstone forms scattered low ridges.	Ultisols (Hapludults), Alfisols (Hapludalfs), Inceptisols (Dystrudepts)	Zafra, Carnasaw, Sherwood, Bismarck, Bonnerdale, Toine, Pirum, Pickens, Sherless. Gravelly, shaly, or stony areas are common.	Thermic/ Udic	52-57	195-210	30/55; 67/94	Potential natural vegetation: oak–hickory–pine forest. Today, loblolly pine plantations and shortleaf pine dominate while upland oak–hickory–pine forest covers less than 20% of the ecoregion. Loblolly pine is not native.	Mostly evergreen or mixed forest; commercial pine plantations are extensive. Some areas have been cleared for pastureland and hay production. Cattle and broiler chickens are important farm products. Logging and outdoor recreation are important land uses.
36b. Central Mountain Ranges	1064	Rugged mountains with steeply sloping, parallel ridges that are divided by narrow valleys. Areas of open high hills occur. Constricted passages between ridges have waterfalls and rapids. Perennial springs occur.	400-2300/ 200-1100	Quaternary colluvium. Folded and faulted Mississippian, Pennsylvanian, Silurian, and Ordovician sandstone, novaculite (chert), shale, siltstone, and limestone. Cretaceous igneous intrusions and associated hot springs occur. Rock outcrops are common.	Ultisols (Hapludults), Inceptisols (Dystrudepts), Alfisols (Paleudalfs)	Carnasaw, Bismarck, Bigfork, Yanush, Avant, Sherless, Clebit, Pirum. Soils are shallow and usually stony.	Thermic/ Udic	52-66	190-233	29/53; 65/94	Potential natural vegetation: oak–hickory–pine forest. Upland native vegetation is mixed pine–upland deciduous forest. Native forest vegetation includes blackjack oak, post oak, black oak, mockernut hickory, white oak, hickory, eastern redcedar, and shortleaf pine. Novaculite glades occur and are especially common in the Cossatot and Zig-Zag mountains.	Mostly forested. Limited, nearly level land is used as pastureland or cropland. Stream water quality is typically exceptional; nutrient, mineral, and biochemical water quality parameter concentrations are very low. During low flow, streams typically run clear.
36c. Central Hills, Ridges, and Valleys	1217	Open, high hills, wide valleys, and a few mountain ridges. Wetlands occur near the larger streams, especially in the Saline River Basin.	400-1400; uplands are lowest in the east/ 50-700	Quaternary colluvium and alluvium. Folded and faulted Mississippian shale and fine-grained sandstone (dominated by Stanley Shale), Ordovician sandstone, shale, novaculite (chert), siltstone, and limestone, and limited Silurian shale and sandstone.	Mostly Ultisols (Hapludults); also Inceptisols (Dystrudepts) and, along streams, Entisols (Udifluvents).	Carnasaw, Townley, Pirum, Clebit, Bismarck, Sherless; along streams, Ceda.	Thermic/ Udic	52-58	190-210	30/54; 66/94	Potential natural vegetation: oak–hickory–pine forest. Upland native vegetation: mixed shortleaf pine–upland deciduous forest. Native on floodplains and low terraces: southern red oak, willow, elm, birch, maples, sweetgum, and American sycamore. Today, loblolly–shortleaf pine and upland oak–hickory–pine forest types codominate.	Mostly forest and pastureland.
36d. Fourche Mountains	2452	Rugged, east to west trending, narrow-crested mountain ridges that are separated by narrow valleys and a few wide valleys.	290-2700; uplands are lowest in the east/ 100-1600	Quaternary colluvium and alluvium. Folded and faulted Pennsylvanian sandstone and shale. Rock outcrops are common.	Ultisols (Hapludults, Paleudults, Fragiudults), Inceptisols (Dystrudepts). On floodplains and stream terraces: Ultisols (Hapludults, Fragiudults, Paleudults), Alfisols (Hapludalfs), Entisols (Udifluvents).	Carnasaw, Pirum, Octavia, Clebit, Sherless, Caston, Mountainburg, Linker, Leadvale. In broad valleys on floodplains and stream terraces: Spadra, Leadvale, Kenn, Cane, Neff, Avilla, Ceda.	Thermic/ Udic	50-62	190-210	30/52; 66/95	Potential natural vegetation: oak–hickory–pine forest. Upland native vegetation is mixed shortleaf pine–upland deciduous forest. In wide valleys, native vegetation is woodland or forest. Loblolly pine is native only to wet lowland sites such as riparian areas. Today, pine–oak forest, oak forest, loblolly–shortleaf pine forest, or oak–pine forest occur. On highest ridgetops (including Rich Mountain in Polk County): white oak and post oak forests and woodlands stunted by ice and wind are found; here, the only montane communities in Arkansas occur. North-facing, steep slopes: mesic vegetation including sugar maple and cucumber magnolia. South-facing slopes: drier forests dominated by shortleaf pine. Steep south-facing sites: grassy woodland areas.	Steeper areas: mostly forested. Broad, gently sloping valleys: mainly forest, pastureland, and hayland. Stream water quality is typically exceptional. Nutrient, mineral, and biochemical water quality parameter concentrations are very low. Turbidity is often higher than elsewhere in the Ouachitas.
36e. Western Ouachitas	5	Mountains with steep-sided ridges divided by narrow valleys.	1000-2310/ 400-1300	Quaternary colluvium and alluvium. Folded and faulted Pennsylvanian Jackfork Sandstone.	Mostly Inceptisols (Dystrudepts) and, along streams, Entisols (Udifluvents).	Clebit; along streams, Ceda.	Thermic/ Udic	56-62	190-210	30/54; 66/94	Potential natural vegetation: oak–hickory–pine forest. Upland native vegetation: mixed pine–oak and oak woodlands and forests. Native on floodplains and low terraces: southern red oak, willow, elm, birch, maples, sweetgum, and American sycamore. Today, pine and upland oak–hickory–pine forest types codominate.	Mostly forested.

37. ARKANSAS VALLEY

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and Bedrock	Soils: Order (Great Group)	Soils: Common Soil Series	Soils: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Vegetation	Land Cover and Land Use
37a. Scattered High Ridges and Mountains	891	Disjunct mountains and ridges in the Arkoma Basin.	400-2753/ 50-1000	Quaternary colluvium. Mostly Pennsylvanian sandstone and shale.	Ultisols (Hapludults, Paleudults)	Enders, Mountainburg, Allen, Nella, Linker	Thermic/ Udic	46-62	190-210	26-52; 67/94	Potential natural vegetation: oak–hickory forest and oak–hickory-shortleaf pine forest. Today, savanna, open woodlands, and forest dominated or codominated by upland oaks, hickory, loblolly pine, and shortleaf pine. Oaks include dry- or fire-adapted species such as post oak. On Magazine Mountain: nearly level tops have xeric, stunted woodlands; north-facing slopes at middle and higher elevations support mesic forest; rimrock has many habitats.	Mostly forested. Some less steeply sloping areas are used as pastureland or hayland.
37b. Arkansas River Floodplain	414	Level to undulating floodplains and low terraces containing natural levees, meander scars, oxbow lakes, point bars, swales, and backswamps.	250-440/ less than 50	Holocene alluvium.	Mollisols (Epiaquolls, Argiudolls), Entisols (Udifluvents, Udipsamments), Alfisols (Hapludalfs), Inceptisols (Eutrudepts), Vertisols (Hapluderts, Epiaquerts)	Roellen, Roxana, Dardanelle, Bruno, Crevasse, Severn, Morganfield, Caspiana, Rilla, Gallion, Keo, Moreland, Perry. Soil drainage is variable; flat, clayey soils are poorly-drained but silty, loamy, or sandy soils especially on natural levees are well- to excessively-drained.	Thermic/ Udic, Aquic	41-50; driest in the west.	210-230	28/52; 69/94	Potential natural vegetation: southern floodplain forest. Native vegetation is mixed deciduous forest containing bottomland oaks including bur oak, American sycamore, sweetgum, willows, eastern cottonwood, green ash, pecan, hackberry, elm, and understory grasses.	Mostly cleared, drained, and used as pastureland, hayland or, where flooding is not a major problem, cropland. Soybeans are the most common crop but some corn, rice, and small grains are also grown. In frequently flooded or poorly-drained areas: remnants of deciduous forest.
37c. Arkansas Valley Hills	2771	Mostly hills, valleys, and cuestas; also scattered low mountains that are too small and discontinuous to map as part of Ecoregion 37a.	250-1000; uplands are lowest in the east/ 50-600	Quaternary colluvium and alluvium. Mostly Pennsylvanian sandstone and shale. Easternmost areas: shale, limy sandstone, sandy limestone, siltstone, and fine-grained sandstone.	Mostly Ultisols (Hapludults, Fragiudults). On terraces and floodplains: Ultisols (Hapludults), Inceptisols (Dystrudepts).	Mostly Linker, Mountainburg; also Leadvale, Steprock, Enders, Sidon. On terraces and floodplains: Spadra, Ouachita.	Thermic/ Udic	43-51	200-220	28/52; 68/94	Potential natural vegetation: oak–hickory forest and oak–hickory-pine forest. Common native trees include blackjack oak, post oak, red oak, white oak, hickories, and shortleaf pine. Today, upland oaks, loblolly pine, shortleaf pine, and hickory occur.	On rugged areas including ridge tops: forest. On less rugged areas: extensive pastureland. Logging, poultry operations and livestock farming are important land uses.
37d. Arkansas Valley Plains	2074	Undulating plains with occasional hills and ridges. Plains are open in the west but become increasingly interrupted by hills and ridges toward the east.	Mostly 295-600; maximum 900/ 50-200	Quaternary terrace deposits and alluvium. Pennsylvanian shale, sandstone, coal, and siltstone. Bituminous coal is found in the west and grades to semi-anthracite coal in the east.	Mostly Ultisols (Fragiudults), Alfisols (Glossaqualfs); also Alfisols (Paleudalfs), Ultisols (Paleudults, Fragiaquults). On terraces and floodplains: Inceptisols (Dystrudepts). On scattered hills and ridges: Ultisols (Hapludults).	Mostly Leadvale, Wrightsville, Taft; also Falkner, Pickwick, Ora, Cane, Guthrie. On terraces and floodplains: Barling. On scattered hills and ridges: Mountainburg, Linker.	Thermic/ Udic, Aquic	42-49; driest in the west. In the rainshadow of the Fourche Mountains.	200-210	28/52; 69/94	Potential natural vegetation: oak–hickory forest, oak–hickory–pine forest, and in the extreme western part of Arkansas, cross timbers (dominants: little bluestem–blackjack oak–post oak). Prior to the 19th century, on broad, dry, fire-prone plains in the west, extensive prairie and scattered large oaks were found on shallow, droughty soils. To the east, less extensive prairies and prairie–savanna occurred. In upland depressions and on flats with impermeable, clay-rich soils or pans, wetlands occur. Today, woodlands composed of post oak, black oak, white oak, hickories, maple, beech, elm, loblolly pine, shortleaf pine, and redcedar occur. Near Fort Smith: several thousand acres of Cherokee Prairie still remain and are maintained by regular fires. On prairie mounds: sumac and sassafras.	Mostly converted to agriculture but remnants of woodland and prairie occur. Pastureland and hayland are extensive; cropland is limited and produces soybeans, small grains, and corn. Poultry and livestock farming are important land uses. Historically, western areas were mined for coal using underground and surface methods. Some abandoned mines have been reclaimed. Today, natural gas and limited coal production occurs.

38. BOSTON MOUNTAINS

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and Bedrock	Soils: Order (Great Group)	Soils: Common Soil Series	Soils: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Vegetation	Land Cover and Land Use
38a. Upper Boston Mountains	1559	Dissected, rugged mountains with steep slopes, sharp ridges, and narrow valleys. Benches on the mountainsides occur and are characteristic. Summer flow in many streams is zero or near zero but enduring pools fed by interstitial flow occur.	Mostly 1900-2800/ 300-900	Quaternary colluvium and alluvium. Pennsylvanian sandstone, shale, limy sandstone, sandy limestone, and siltstone. Mountaintops: generally capped by resistant sandstone. Sideslopes: interbedded sandstone, siltstone, and shale.	Uplands: Ultisols (Hapludults, Paleudults, Fragiudults). Terraces and floodplains: Ultisols (Hapludults), Entisols (Udifluvents).	Uplands: Enders, Nella, Steprock, Mountainburg, Leesburg, Sidon, Nauvoo; upland soils have low natural fertility. Terraces and floodplains: Spadra, Ceda.	Thermic/ Udic	52-54	170-200	24/48; 64/88	Potential natural vegetation: oak–hickory forest. Mixed deciduous forest and oak woodlands are native. Today, on upland areas: northern red oak, white oak, pignut hickory, and mockernut hickory. Today, on narrow floodplains and low terraces: sweetgum, willows, birch, American sycamore, hickories, southern red oak, and white oak.	Mostly wooded; clearings are used as pastureland or hayland. Primary land uses: logging and recreation. Stream water quality is often exceptional; during periods of low flow, turbidity and mineral, biochemical, nutrient, and suspended solid values are very low.
38b. Lower Boston Mountains	3079	Low mountains, rounded high hills, and undulating plateaus. Summer flow in many streams is zero or near zero but enduring pools fed by interstitial flow occur.	Mostly 200-1900; up to 2300/ 150-800	Quaternary colluvium and alluvium. Pennsylvanian sandstone, shale, limy sandstone, sandy limestone, and siltstone. Mountaintops are usually capped by resistant sandstone. Sideslopes are often underlain by interbedded sandstone, siltstone, and shale.	Uplands: Ultisols (Hapludults, Paleudults, Fragiudults). Terraces and floodplains: Entisols (Udifluvents), Ultisols (Hapludults), Alfisols (Hapludalfs), Mollisols (Hapludolls).	Uplands: Enders, Nella, Mountainburg, Steprock, Nella, Linker, Sidon; in east, Steprock and Linker are more widespread than in west. On floodplains and terraces: Ceda, Cleora, Razort, Spadra. Upland soils have low natural fertility.	Thermic/ Udic	46-52. The east is moister than the west.	180-205	26/50; 66/90	Potential natural vegetation: oak–hickory–pine forest and oak–hickory forest. Mixed oak and oak–pine forests, woodland, or savanna occur on uplands; northern red oak, white oak, post, scarlet, black, blackjack oak, pignut hickory, shagbark hickory, mockernut hickory, and shortleaf pine are native. On lower, drier south- and west-facing sites: shortleaf pine. On narrow floodplains and low terraces: sweetgum, willows, birch, American sycamore, hickories, southern red oak, and white oak.	Mostly forest and woodland; becomes more open to the west. Flatter areas are used as pastureland or hayland. Logging and recreation are important land uses. Stream water quality is often exceptional; during periods of low flow, turbidity, mineral, biochemical, nutrient, and suspended solid values are very low.

39. OZARK HIGHLANDS

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and Bedrock	Soils: Order (Great Group)	Soils: Common Soil Series	Soils: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Vegetation	Land Cover and Land Use
39a. Springfield Plateau	1675	Nearly level to rolling, undissected or slightly dissected portion of the Springfield Plateau. Karst features including caves, sinkholes, and solution valleys occur. Springs are common and contribute substantially to streamflow in the summer and fall. Many streams flow year-round, but some dry valleys occur.	260-1600; uplands are lowest in the east/ mostly 50-200	Quaternary cherty clay solution residuum and limited amounts of alluvium. Extensive limestone and interbedded chert of the Mississippian Boone Formation.	On uplands underlain by cherty limestone: Ultisols (Paleudults, Fragiudults). On uplands underlain by sandstone: Ultisols (Hapludults). On floodplains or low terraces: Alfisols (Hapludalfs), Entisols (Udifluvents).	On uplands underlain by cherty limestone: Noark, Clarksville, Nixa, Captina, Tonti. On uplands underlain by sandstone: Linker, Mountainburg. On floodplains or low terraces: Secesh, Razort.	Mesic, Thermic/ Udic	44-48. Parts are in the rainshadow of the Boston Mountains.	175-205	24/50; 65/93	Potential natural vegetation: oak–hickory forest and some oak–hickory–pine forest. Prior to the 19th century, savanna or tall grass prairies were common and maintained by fire. Native on uplands: mixed deciduous forest (containing black oak, white oak, blackjack oak, post oak, and hickories) with some mixed deciduous–shortleaf pine forest. Native on floodplains and low terraces: willows, maples, hickories, birch, American elm, and American sycamore.	Mostly cleared for pastureland, hayland, or expanding residential development. Limited areas produce small grains, orchard fruit, grapes, or vegetables. Most farm income is from poultry, cattle, or hogs. In most rugged, rocky, or poorly-drained areas: some forest remnants.
39b. Dissected Springfield Plateau–Elk River Hills	2028	Moderately to highly dissected, hilly part of the Springfield Plateau. Gently sloping, narrow ridge tops are separated by steep V-shaped valleys. Karst features occur. Springs are common and contribute to streamflow in the summer and fall. Streams are usually perennial but some dry valleys occur.	300-1850/ 50-800	Quaternary cherty clay solution residuum, colluvium, and alluvium. On uplands: limestone and interbedded chert of the Mississippian Boone Formation. Along deeply entrenched rivers: early-Mississippian or Devonian Chattanooga Shale and Ordovician Cotter Dolomite. Rock outcrops.	Ultisols (Paleudults, Fragiudults), Alfisols (Hapludalfs, Paleudalfs), Mollisols (Hapludolls).	Clarksville, Nixa, Noark, Arkana, Moko, Portia, Estate	Mesic/ Udic	44-48. Parts are in the rainshadow of the Boston Mountains.	185-195	23/48; 66/90	Potential natural vegetation: oak–hickory–pine forest and oak–hickory forest. Native on uplands: oak–woodland, mixed deciduous forest, or mixed deciduous–pine forest containing black oak, white oak, blackjack oak, post oak, hickories, and shortleaf pine. Native on north-facing slopes and in ravines: mesic forest containing sugar maple, white oak, northern red oak, and beech.	Mostly woodland or forest. On gently sloping ridgetops: cleared areas. In narrow valleys: pastureland. Primary land uses are woodland grazing, logging, livestock farming, recreation, quarrying, and housing.
39c. White River Hills	1227	Moderately to highly dissected portion of the Salem Plateau containing hills, ridges, karst features, and entrenched, narrow valleys. Flat land is uncommon, but benches and bottomlands flank the White River. Streams generally flow year-round, reflecting the influence of ground water, but dry valleys occur.	540-1800/ 150-800	Quaternary cherty silty to sandy clay solution residuum, silty sand to sandy silt decomposition residuum, colluvium, and limited amounts of alluvium. Dolomite, chert, and limestone occur and are sometimes interbedded with sandstone and shale. Ordovician Cotter Dolomite and Jefferson City Dolomite are common but, near the southern boundary, Mississippian Boone Formation occurs.	On uplands: Ultisols (Fragiudults, Paleudults, Hapludults), Alfisols (Hapludalfs), Mollisols (Hapludolls). On narrow floodplains and low terraces: Alfisols (Hapludalfs), Entisols (Udifluvents).	On uplands: Arkana, Moko, Doniphan, Gassville, Nixa, Clarksville, Noark, Estate, Portia. On floodplains: Razort, Elsah.	Mesic/ Udic	42-47	185-195	24/50; 66/90	Potential natural vegetation: oak–hickory forest, cedar glades, and, in the west, oak–hickory–pine forest. Native on uplands: mixed deciduous forest (containing black oak, white oak, blackjack oak, post oak, and hickories) and also mixed deciduous–shortleaf pine forest. Native on driest sites with shallow, rocky soils over dolomite and limestone: glades consisting of eastern redcedar, Ashe juniper, native grasses, and sparse populations of post oak and elm.	Uplands: mostly covered by forest but less sloping uplands have been cleared and are used as pastureland or hayland. Larger valleys: mostly pastureland; only limited cropland producing corn, soybeans, and specialty crops occurs. Primary land uses are forest grazing, livestock farming, logging, recreation, and, especially near reservoirs and lakes, rural residential development.
39d. Central Plateau	2634	Undulating to hilly part of the Salem Plateau containing hollows, ridges, knobs, and karst features including caves and sinkholes; along major rivers, narrow corridors of nearly level bottomland occur. Generally, slightly to moderately dissected, but steep, highly dissected terrain is found near major rivers. Springs are common in some areas and contribute substantially to streamflow in the summer and fall. On bottomlands, floodwaters rise and recede quickly.	Mostly 250-1400; maximum 1700/ 100-600	Quaternary cherty silty to sandy clay solution residuum, silty sand and sandy silt decomposition residuum, colluvium, and alluvium. Dolomite and limestone are extensive and often cherty; interbedded sandstone and shale also occur. Includes Ordovician Jefferson City Dolomite, Cotter Dolomite, Powell Dolomite, Everton Formation, and St. Peter Sandstone.	On uplands: Alfisols (Paleudalfs, Hapludalfs), Ultisols (Paleudults, Hapludults, Fragiudults), Mollisols (Hapludolls). On floodplains or low terraces: Inceptisols (Eutrudepts), Mollisols (Hapludolls), Alfisols (Hapludalfs).	On uplands underlain by cherty carbonates: Gepp, Doniphan, Arkana, Agnos, Ventris, Gassville, Moko, Captina, Eldon. On cherty ridgetops and upper slopes: Clarksville. On sandstone uplands: Boden, Brockwell, Brocket, Lily, Portia. On floodplains or low terraces: Hontas, Sturkie, Razort. Upland soils are stony, thin, droughty, and shallower than bottomland soils.	Mesic/ Udic	44-49. West-facing slopes receive more precipitation than valleys.	175-200	23/49; 65/93	Potential natural vegetation: oak–hickory forest, oak–hickory–pine forest, and scattered cedar glades. Forest, savanna, glades, barrens, and upland prairies occurred prior to the nineteenth century. Native on uplands: mixed forest containing blackjack oak, post oak, black oak, white oak, hickories. On droughty, rocky slopes: post oak, blackjack oak, and shortleaf pine. On thin soils: barrens with sparse tree cover with herbaceous ground cover. Native on north-facing slopes and in hollows: mesic forests containing sugar maple, white oak, northern red oak, and beech. On shallow, rocky, droughty soils underlain by dolomite or limestone: cedar glades. Native on floodplains and low terraces: southern red oak, white oak, American sycamore, willow, eastern cottonwood, maples, birch, and ash.	Gently sloping areas are pastureland, hayland, or house sites. Steeply sloping areas with shallow, stony soils are covered by forest or savanna. Primary land uses are livestock farming (cattle and hogs), poultry farming, logging, hay production, and recreation. The acreage of harvested cropland is very small and is usually restricted to floodplains, terraces, and gently sloping uplands.

73. MISSISSIPPI ALLUVIAL PLAIN

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and Bedrock	Soils: Order (Great Group)	Soils: Common Soil Series	Soils: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Vegetation	Land Cover and Land Use
73a. Northern Holocene Meander Belts	2430	Broad, flat to nearly flat floodplain containing the meander belts of the present and past courses of the Mississippi River. Point bars, natural levees, flood control levees, swales, meander scars, oxbow lakes, drainage ditches, and meandering, low gradient, rivers and bayous occur.	100-265/ 5-20	Holocene alluvial sand, silt, clay, and gravel.	Inceptisols (Endoaquepts, Epiaquepts), Entisols (Udifluvents, Udipsamments), Alfisols (Hapludalfs, Endoaqualfs), Vertisols (Dystraquerts)	Commerce, Crevasse, Convent, Robinsonville, Tunica, Alligator, Dubbs, Dundee, Sharkey, Newellton, Bruno, Earle	Thermic/ Aquic, Udic	48-54	210-220	30/58; 70/93	Potential natural vegetation: southern floodplain forest. Native vegetation is bottomland hardwood forest and woodland. Sandbars: dominated by pure stands of black willow. Point bars: diverse forests of cottonwood, sugarberry, sycamore, green ash, and pecan. Broad, flood-prone flats: sugarberry, American elm, and green ash. Drier sites on the floodplain margins had willow oak, water oak, cherrybark oak, and swamp chestnut oak; these species, along with pecan and cottonwood, occupied natural levees within the floodplain.	Mostly cropland; some deciduous forest and forested wetlands. Soybeans, cotton, corn, wheat, rice, and sorghum are the main crops. Commercial catfish production occurs.
73b. Northern Pleistocene Valley Trains	173	Wide, flat to irregular alluvial plain with relict patterns of branching channels, irregular braided bars, and interfluves. Includes low gradient rivers, bayous, and creeks with silty substrates. Drainage ditches occur.	205-240/ 5-20	Holocene unconsolidated silty, sandy, and gravelly alluvium overlies Pleistocene glacial outwash deposits.	Alfisols (Albaqualfs, Endoaqualfs), Vertisols (Epiaquerts), Inceptisols (Epiaquepts), Entisols (Udifluvents)	Sharkey, Steele, Crowley, Dundee, Tunica	Thermic/ Aquic, Udic	48-50	210-220	29/50; 70/92	Potential natural vegetation: southern floodplain forest. Native vegetation is bottomland hardwood forest and woodland containing species that are typical of higher bottomlands such as Nuttall oak, willow oak, and swamp chestnut oak.	Mostly cropland. Soybeans, cotton, corn, wheat, rice, and sorghum are the main crops.
73c. St. Francis Lowlands	1258	Wide, flat to irregular alluvial plain containing terraces, undulating sand sheets, sand dunes, depressional sand blow-outs, sunk lands, interfluves, relict channels, and drained wetlands. Streams are extensively channelized. An extensive network of drainage ditches occurs.	190-275/ 5-25	Quaternary sand sheets, Pleistocene terrace deposits (composed of unconsolidated alluvial sand, silt, and gravel), and Pleistocene glacial outwash deposits.	Alfisols (Endoaqualfs, Natraqualfs, Hapludalfs, Fragiaqualfs), Vertisols (Epiaquerts, Dystraquerts), Inceptisols (Endoaquepts, Epiaquepts), Entisols (Udifluvents, Fluvaquents, Udipsamments)	Dundee, Amagon, Sharkey, Mhoon, Foley, Dubbs, Henry, Commerce, Steele, Crevasse, Alligator, Tunica, Hayti	Thermic/ Aquic, Udic	48-52	200-220	29/51; 69/92	Potential natural vegetation: southern floodplain forest. Native vegetation is bottomland hardwood forest and woodland containing overcup oak, Nuttall oak, willow oak, water hickory, American elm, green ash, and sweetgum. Native on wettest areas (e.g., depressions and relict braided channels): bald cypress, water tupelo, and overcup oak. Native on ridges: Nuttall oak, willow oak, cherrybark oak. Sandy terraces supported natural grasslands (possibly of Native American origin).	Mostly cropland. Soybeans, corn, cotton, wheat, sorghum, and rice are the main crops.
73d. Northern Backswamps	199	Low-lying floodplains composed of poorly-drained flats that are broken by alternating swales and ridges. Water often collects into marshes, swamps, oxbow lakes, ponds, and low gradient streams.	90-240/ less than 10	Holocene silty and clayey fluvial and lacustrine deposits that are locally organic-rich.	Vertisols (Dystraquerts, Epiaquerts), Mollisols (Hapludolls)	Alligator, Sharkey, Tunica, Bowdre	Thermic/ Aquic, some Udic	48-54	210-240	32/58; 70/93	Potential natural vegetation: southern floodplain forest. Native vegetation is bottomland hardwood forest, woodland, and forested canebrakes of open, mixed deciduous trees and giant cane. Wettest areas: bald cypress–water tupelo forest. Less frequently flooded sites: overcup oak, Nuttall oak, willow oak, water hickory, elm, green ash, and sweetgum.	Deciduous forest, forested wetlands, cropland, and pastureland. Cotton, soybeans, corn, wheat, and sorghum are the main crops. Commercial catfish production is also common.
73e. Grand Prairie	1939	Broad, nearly level terrace with incised perennial and intermittent streams. A narrow belt of hills occurs in the east.	150-320/ 10-50	Quaternary windblown silt (i.e., loess) veneers Pleistocene terrace deposits (composed of alluvial sand, silt, and clay).	Alfisols (Hapludalfs, Fragiudalfs, Albaqualfs, Fraglossudalfs, Glossaqualfs, Natraqualfs). Slowly to very slowly permeable soils and fragipans are common.	Loring, Crowley, Stuttgart, Calloway, Calhoun, Hillemann, McKamie	Thermic/ Udic, Aquic	48-52	220-230	30/52; 70/93	Potential natural vegetation: oak–hickory forest. Native vegetation is mostly tall grass prairie dominated by big bluestem, Indiangrass, and switchgrass. In addition, open woodland and savanna dominated by upland oaks, hickory, elm, maple, and locust.	Mostly cropland. Rice, soybeans, cotton, corn and wheat are the main crops. Wetlands and rice fields provide habitat for waterfowl. Duck and goose hunting occurs.
73f. Western Lowlands Holocene Meander Belts	1299	Flat to nearly flat floodplain containing the meander belts of the present and past courses of the White, Black, and Cache rivers. Point bars, natural levees, swales, meander scars, oxbow lakes, and low gradient rivers occur.	130-300/ 5-20	Holocene sandy, silty, clayey, and gravelly alluvium.	Inceptisols (Endoaquepts), Alfisols (Natraqualfs, Endoaqualfs, Hapludalfs), Vertisols (Epiaquerts), Mollisols (Hapludolls)	Kobel, Commerce, Sharkey, Foley, Egam, Staser, Dundee, Forestdale, Rexor, Tichnor, Mhoon	Thermic/ Aquic, Udic	46-52	210-230	28/54; 68/93	Potential natural vegetation: southern floodplain forest. Native vegetation is bottomland hardwood forest and woodland dominated by oak communities. Eastern cottonwood, green ash, cherrybark oak, Nuttall oak, water oak, willow oak, and sweetgum are common.	Deciduous forest and cropland. Soybeans, rice, sorghum, corn, and cotton are the main crops.
73g. Western Lowlands Pleistocene Valley Trains	4188	Wide, flat to irregular terraces with relict patterns of branching channels, irregular braided bars, dunes, interdunal depressions, and interfluves. Includes low gradient, extensively channelized rivers, and creeks that have silty substrates. Drainage ditches occur.	150-320/ 5-20	Quaternary windblown silt (i.e., loess) veneers Quaternary sand sheets, Quaternary sand dunes, Pleistocene terrace deposits (composed of unconsolidated alluvial sand, silt, and gravel), and Pleistocene glacial outwash deposits.	Alfisols (Fraglossudalfs, Fragiaqualfs, Fragiudalfs, Glossaqualfs, Natraqualfs, Hapludalfs), Vertisols (Epiaquerts)	Calloway, Henry, Loring, Memphis, Grenada, Calhoun, Jackport, Foley, Hillemann	Thermic/ Udic, Aquic	46-52	210-230	28/54; 68/93	Potential natural vegetation: southern floodplain forest. Native vegetation is bottomland hardwood forest with an abundance of green ash, bottomland oaks, American elm, cottonwood, sugarberry, sweetgum, water tupelo, and bald cypress; in limited areas, loblolly pine also occurred. Native on Pleistocene dunes: white oak–black oak–southern red oak forest or post oak woodland. In dune depressions or sandponds: forests dominated by overcup oak, water hickory, and pin oak with the federally-endangered shrub, pondberry, in the understory.	Mostly cropland; also deciduous forest and forested wetlands. Rice, sorghum, soybeans, cotton, corn, and wheat are the main crops. Commercial crawfish, baitfish, and catfish farms are common. Serves as a wintering ground for water fowl. Duck hunting is seasonally common.
73h. Arkansas/ Ouachita River Holocene Meander Belts	1509	Flat to nearly flat floodplain containing the meander belts of the present and past courses of the lower Arkansas and Ouachita rivers. Point bars, natural levees, swales, abandoned channels, meander scars, oxbow lakes, and low gradient rivers and bayous occur.	Mostly 110-260/ 5-20	Holocene sandy, silty, clayey, and gravelly alluvium.	Alfisols (Hapludalfs, Epiaqualfs), Vertisols (Epiaquerts), Inceptisols (Epiaquepts, Eutrudepts), Entisols (Udipsamments, Udifluvents)	Perry, Portland, Rilla, Hebert, Crevasse, Bruno, Keo, Norwood, Sharkey	Thermic/ Udic, Aquic	48-55	220-240	32/58; 70/94	Potential natural vegetation: southern floodplain forest. Native vegetation is bottomland hardwood forest/woodland containing cottonwood, elm, hackberry, pecan, sycamore, willow, green ash, cherrybark oak, Nuttall oak, swamp chestnut oak, water oak, willow oak, overcup oak, sweetgum, sycamore, and water hickory. In wet channels: bald cypress and water tupelo. Palmetto and Spanish moss occur and are at their northern limit.	Mostly cropland and pastureland; some deciduous forest and forested wetlands. Crops are mainly soybeans, rice, and wheat.
73i. Arkansas/ Ouachita River Backswamps	1278	Low-lying floodplains with poorly-drained flats broken by alternating swales and ridges. Water often collects into its marshes, swamps, oxbow lakes, ponds, and sloughs. Some low gradient streams with silty substrates occur. Many drainage ditches occur.	100-250/ less than 10	Holocene silty, clayey, or loamy fluvial and lacustrine deposits that are locally organic-rich. Natural levee deposits are common.	Vertisols (Epiaquerts, Hapluderts), Mollisols (Hapludolls), Inceptisols (Epiaquepts), Alfisols (Endoaqualfs, Hapludalfs)	Sharkey, Desha, Portland, Hebert, Perry, Rilla, Moreland, Yorktown, Alligator	Thermic/ Aquic, some Udic	48-55	220-240	32/58; 70/94	Potential natural vegetation: southern floodplain forest. Native vegetation is bottomland hardwood forest and woodland dominated by willow oak, Nuttall oak, and water oak along with forested canebrakes containing mixed deciduous trees and giant cane.	Deciduous forest, forested wetlands, and extensive cropland. Areas cleared, drained, and protected by levees grow rice, cotton, soybeans, and wheat.
73j. Macon Ridge	236	Wide, flat to irregular alluvial terrace with relict patterns of branching channels, irregular braided bars, and interfluves. Low gradient, channelized streams and canals with silty substrates occur.	95-145/ 5-30	Quaternary windblown silt (i.e., loess) veneers Pleistocene terrace deposits (composed of alluvial sand, silt, and clay), and Pleistocene glacial outwash deposits.	Alfisols (Fraglossudalfs, Fragiaqualfs, Epiaqualfs), Vertisols (Epiaquerts), Inceptisols (Epiaquepts), Mollisols (Hapludolls)	Calloway, Henry, Grenada, Perry, Portland, Sharkey, Desha, Hebert, McGehee	Thermic/ Udic, Aquic	53-55	230-240	35/58; 71/94	Potential natural vegetation: southern floodplain forest. Native vegetation includes bottomland forest (dominants: willow oak, water oak, and swamp chestnut oak) and upland hardwood forest (dominants: white oak, southern red oak, and, in drier sites, post oak); also, tall grass prairies and loblolly pine-dominated areas may have occurred.	Pastureland, deciduous forest, and cropland. Soybeans, cotton, oats, wheat, and rice are the main crops. Commercial fish farms occur.

74. MISSISSIPPI VALLEY LOESS PLAINS

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and Bedrock	Soils: Order (Great Group)	Soils: Common Soil Series	Soils: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Vegetation	Land Cover and Land Use
74a. Bluff Hills	799	Disjunct low, steeply to gently sloping, narrow ridges that are dissected or gullied by intermittent, silt- and sand-bottomed streams. Ravines occur.	275-500/ 100-175	Pleistocene windblown silt deposits (i.e., loess), silt, sand, and gravel. Tertiary sands, gravels, and clays.	Alfisols (Hapludalfs, Fragiudalfs), Ultisols (Hapludults), Inceptisols (Eutrudepts). On floodplains: Entisols (Fluvaquents).	Memphis, Natchez, Loring, Brandon, Saffell, Falaya. Droughty, erodible soils are common.	Thermic/ Udic; Aquic on floodplains	46-52	210-220	28/52; 68/92	Potential natural vegetation: oak–hickory forest. Post oak, blackjack oak, southern red oak, white oak, beech, and maple occur. In ravines: vegetation can be rich in mesophytes, (e.g., beech and sugar maple). Oaks dominate many mesophytic communities. Tulip poplar dominates early-successional communities. On sandy soils in the north: shortleaf pine.	Deciduous forest, pastureland, idle land, and limited cropland. Hay, forage crops, and, locally, peaches are the main crops.

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