United States
Department of
Agriculture

Natural
Resources
Conservation
Service

In cooperation with
the Tennessee Valley
Authority, the Tennessee
Agricultural Experiment
Station, the Henry County
Board of Commissioners,
and the Tennessee
Department of Agriculture

Soil Survey of Henry County, Tennessee

How To Use This Soil Survey

General Soil Map

The general soil map, which is a color map, shows the survey area divided into groups of associated soils called general soil map units. This map is useful in planning the use and management of large areas.

To find information about your area of interest, locate that area on the map, identify the name of the map unit in the area on the color-coded map legend, then refer to the section **General Soil Map Units** for a general description of the soils in your area.

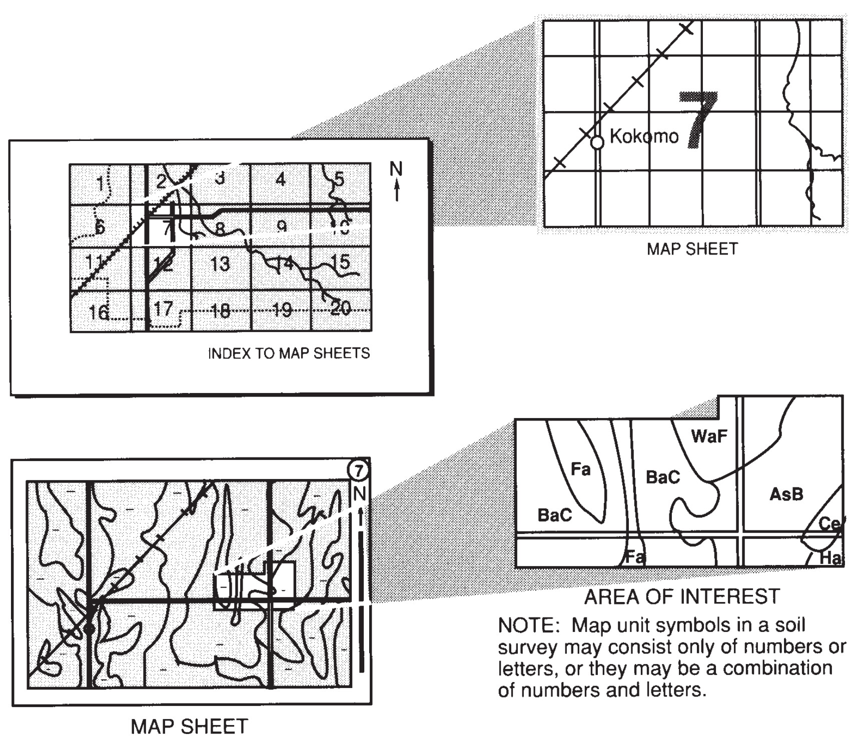
Detailed Soil Maps

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



National Cooperative Soil Survey

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service has leadership for the Federal part of the National Cooperative Soil Survey. This survey was made cooperatively by the Natural Resources Conservation Service, the Tennessee Valley Authority, the Tennessee Agricultural Experiment Station, the Tennessee Department of Agriculture, and the Henry County Board of Commissioners. The survey is part of the technical assistance furnished to the Henry County Soil and Water Conservation District.

Major fieldwork for this soil survey was completed in 2010. Soil names and descriptions were approved in 2011. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2011. The most current official data are available on the Internet.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

Citation

The recommended citation for this survey is:

United States Department of Agriculture, Natural Resources Conservation Service. 2014. Soil survey of Henry County, Tennessee. http://www.nrcs.usda.gov/wps/portal/nrcs/soilsurvey/soils/survey/state/.

Cover Caption

Fall colors as seen at Kentucky Lake. The lake is along the interface of two major land resource areas: the Southern Coastal Plains and the Highland Rim and Pennyroyal.

Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at http://www.nrcs.usda.gov/.

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Contents

Issued 2014

Foreword

Soil surveys contain information that affects land use planning in survey areas. They include predictions of soil behavior for selected land uses. The surveys highlight soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

Soil surveys are designed for many different users. Farmers, ranchers, foresters, and agronomists can use the surveys to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the surveys to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the surveys to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://soils.usda.gov/sqi/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each map unit is shown on the detailed soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Kevin Brown
State Conservationist
Natural Resources Conservation Service

Soil Survey of
Henry County, Tennessee

By J. Craig Harris, Natural Resources Conservation Service

Fieldwork by J. Craig Harris, David W. Thomas, David K. Hargis, and
Steve Monteith, Natural Resources Conservation Service, and
William T. Brown and Howard Smith

United States Department of Agriculture,
Natural Resources Conservation Service,
in cooperation with
the Tennessee Valley Authority,
the Tennessee Agricultural Experiment Station,
the Benton County Board of Commissioners, and
the Tennessee Department of Agriculture

Henry County is located in northwestern Tennessee (fig. 1). It is bounded on the north by Calloway and Graves Counties, Kentucky; on the west by Weakley County, Tennessee; on the south by Carroll and Benton Counties, Tennessee; and on the east by Benton and Stewart Counties, Tennessee. According to the 2010 census, the population of the county was 32,330 (USDC, 2010). The city of Paris is the county seat and the largest town in the county. It is located near the geographic center of the county. It is 117 miles west of Nashville and 62.1 miles southwest of Clarksville. Other incorporated towns include Cottage Grove, Henry, and Puryear. The total area of the county is 379,000 acres, or about 592 square miles, including approximately 21,000 acres of Kentucky Lake. Kentucky Lake is a Tennessee Valley Authority reservoir created in the 1940s. It covers all of the Tennessee River bordering Henry County and most of the Big Sandy River.

Henry County is dominantly rural. The economy is a mixture of agriculture, industry, and commerce. Production of row crops and livestock are the major agricultural enterprises. Corn, wheat, and soybeans are the major crops. Some tobacco and cotton are also grown. Commercial and industrial facilities are mainly located near Paris.

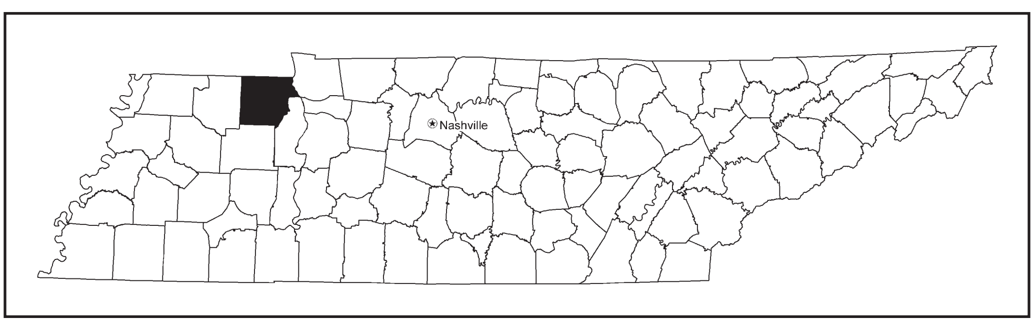

Figure 1.—Location of Henry County in Tennessee.

This survey updates an older survey published in 1958 (USDA–SCS, 1958). The 1958 survey is currently out-of-print, and copies are no longer available for distribution. This updated soil survey provides more current imagery, mapping units, soil series names and descriptions, and improved interpretive data for land use planning and management.

General Nature of the Survey Area

This section provides general information about the history and climate of the survey area.

History

This section was written with assistance from David Webb, Henry County historian.

Henry County was created by an act of the General Assembly of the State of Tennessee on November 7, 1821. The county was named in honor of the Revolutionary War patriot Patrick Henry. Paris, the principal business center, was established as the county seat on September 23, 1823, and was incorporated one week later. Located on the “Tennessee Ridge” near the center of the county, Paris was “laid off in a thick forest.” Paris was named for the French capital city to honor the Marquis de Lafayette.

The area that is now Henry County was part of the Jackson Purchase. At the time of the Chickasaw Treaty in 1818, the area was a dense wilderness consisting mainly of primary growth forest with briars and wild pea vines. Henry County soon became the gateway for the settlement of West Tennessee and beyond. Early pioneers, including those who received land grants for their service in the Revolutionary War, were mostly from North Carolina and Virginia. These settlers cleared the land, built log cabins and barns, brought horses and cattle, and planted gardens and orchards. Farmers planted crops, and taxes were collected on acreage, town lots, stud horses, taverns, and slaves. By 1830, the county had 12,230 people—the largest population of any county in West Tennessee at that time.

Prior to the Civil War, tobacco and cotton were shipped from Tennessee River ports, including Paris Landing. In 1860, farmers in Henry County sold 5,071,075 pounds of tobacco and 225 bales of ginned cotton. Other antebellum agricultural products in Henry County included wool, Irish potatoes, and sweet potatoes. The Memphis, Clarksville & Louisville Railroad Company, which had tracks through Paris, was completed on March 23, 1861. It provided another means of shipping agricultural products. The railroad transported troops and munitions for the Confederacy without charge.

During the Civil War, military units, including the Fifth Tennessee Infantry Regiment, organized on the courthouse lawn. Henry County sent more than 2,500 volunteers to the Confederacy and claimed the title “Volunteer County of the Volunteer State.” In March 1862, General Ulysses S. Grant ordered four companies and a battery of artillery into Paris. The Union forces attacked an encampment of 400 Confederate soldiers but retreated toward Paris Landing after a short engagement. In October 1864, General Nathan Bedford Forrest began his Johnsonville campaign at Paris Landing. Forrest captured 4 Union gunboats, 14 transports, 20 barges, 26 pieces of artillery, $6,700,000 worth of property, and 150 prisoners.

Henry County’s first tourist attraction, Sulphur Well, was created by accident in 1821 when an artesian well of sulphur water was struck in an attempt to locate a large salt bed on a former Chickasaw reservation. Eventually a summer resort was erected at the site to accommodate the large numbers of people who came to drink the water, which was believed to have health benefits. Many sought refuge at Sulphur Well during the yellow fever epidemic in 1837.

In 1944, Sulphur Well was covered by the Tennessee Valley Authority's Kentucky Lake, one of the largest created lakes in the world. After the establishment of the 841-acre Paris Landing State Park in 1945, the lake became a popular recreation destination.

In addition to tourism, Henry County contains a diverse retail, medical, industrial, and agricultural economy. Paris is a retail shopping hub supporting locally-owned businesses and national chains. Henry County has a strong healthcare industry, including a county-owned regional medical center. Local industries include lumber, industrial bearings, food products, printing, small motors, automotive-sealing products, school laboratory furniture, concrete, asphalt, clay, tanning beds, railroad tank lining, and pallets. Corn, soybeans, wheat, and tobacco are the major crops. The agricultural community includes forestry, dairy, beef, and swine operations; poultry and horse farms; farm equipment, seed, and fertilizer businesses; and wineries (Cooper and Baggett, 1973; Fox and Morris, 1934; Greene, 1900; Inman, 1976; Paris-Henry County Chamber of Commerce, 2012; Rennolds, 1904; TVA, 1934; USDC, 2010; USDA, 1925, 1941, and 1958; Van Dyke, 1987; and Van West, 1998).

Climate

Prepared by the Natural Resources Conservation Service National Water and Climate Center, Portland, Oregon.

The climate tables were created using data from a climate station at Paris, Tennessee. Thunderstorm days, relative humidity, percent sunshine, and wind information were estimated from data from a first order station at Memphis, Tennessee.

Table 1 gives data on temperature and precipitation for the survey area as recorded at Paris in the period 1971 to 2000. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on the length of the growing season.

In winter, the average temperature is 36.9 degrees F and the average daily minimum temperature is 27.3 degrees. The lowest temperature on record, which occurred at Paris on February 2, 1951, is 22 degrees. In summer, the average temperature is 75.8 degrees and the average daily maximum temperature is 86.6 degrees. The highest temperature, which occurred at Paris on July 1, 1952, is 108 degrees.

Growing degree days are shown in table 1. They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (50 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The average annual total precipitation is about 53.72 inches. Of this, about 29.92 inches, or 56 percent, usually falls in April through October. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 7.76 inches at Paris on September 27, 2002. Thunderstorms occur on about 54 days each year, and most occur in July.

The average seasonal snowfall is 7.1 inches. The greatest snow depth at any one time during the period of record was 10 inches recorded on February 9, 1979. On an average, 6 days per year have at least 1 inch of snow on the ground. The heaviest 1-day snowfall on record was 8.5 inches recorded on December 23, 1963.

The average relative humidity in mid-afternoon is about 55 percent. Humidity is higher at night, and the average at dawn is about 81 percent. The sun shines 74 percent of the time possible in summer and 51 percent in winter. The prevailing wind is from the south-southwest. Average wind speed is highest, 9.6 miles per hour, in March.

General Soil Map Units

The general soil map in this publication shows broad areas that have a distinctive pattern of soils, relief, and drainage (fig. 2). Each map unit on the general soil map is a unique natural landscape. Typically, it consists of one or more major soils or miscellaneous areas and some minor soils or miscellaneous areas. It is named for the major soils or miscellaneous areas. The components of one map unit can occur in another but in a different pattern.

The general soil map can be used to compare the suitability of large areas for general land uses. Areas of suitable soils can be identified on the map. Likewise, areas where the soils are not suitable can be identified.

Because of its small scale, the map is not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure. The soils in any one map unit differ from place to place in slope, depth, drainage, and other characteristics that affect management.

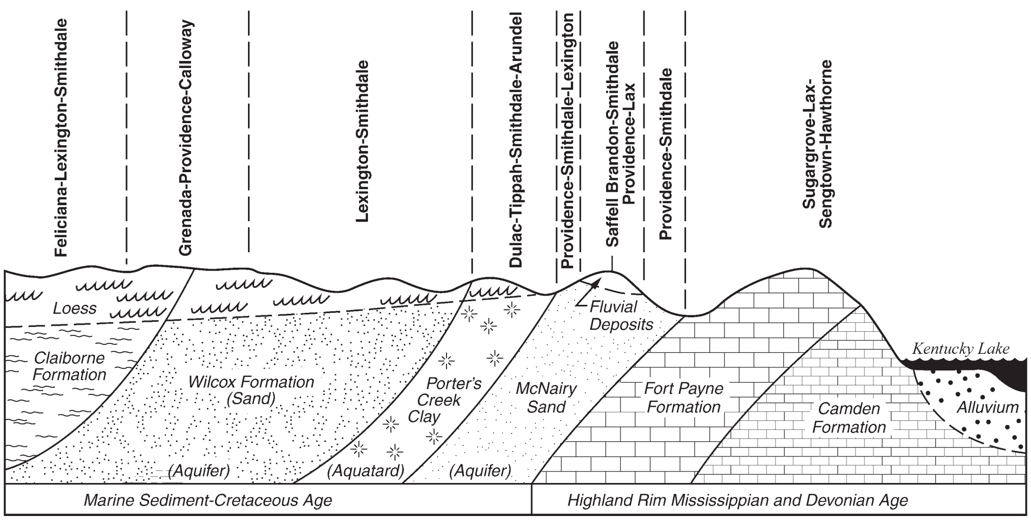

Figure 2.—Cross section of the geology of Henry County and associated general soil map units.

1. Sugargrove-Lax-Sengtown-Hawthorne

Dominantly strongly sloping to very steep, well drained and moderately well drained soils that have a loamy or gravelly surface layer and a loamy or gravelly subsoil; on uplands

Setting

Location in the survey area: Extreme eastern part
Landscape: Highland Rim
Landform: Uplands

Landform position: Hawthorne, Sugargrove, and Sengtown—narrow, strongly sloping ridgetops and moderately steep to very steep side slopes; Lax—narrow to moderately wide, gently sloping to strongly sloping ridgetops
Slope: 5 to 70 percent

Composition

Percent of the survey area: 0.7
Sugargrove soils: 20 percent
Lax soils: 19 percent
Sengtown soils: 17 percent
Hawthorne soils: 14 percent
Minor soils: 30 percent, including Arkabutla, Chenneby, Ennis, Humphreys, Lobelville, Minvale, Paden, Pruitton, Riverby, and Tarklin soils

Soil Characteristics

Sugargrove
Surface layer: Brown gravelly silt loam
Subsurface layer: Pale brown gravelly silt loam
Subsoil: Upper part—light yellowish brown gravelly silt loam; next part—yellowish brown gravelly silt loam; lower part—strong brown gravelly silt loam
Substratum: Soft weathered siltstone and chert
Bedrock layer: Siltstone
Depth class: Moderately deep and deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 5 to 45 percent
Parent material: Interbedded siltstone and cherty limestone

Lax
Surface layer: Brown silt loam
Subsurface layer: Pale brown silt loam
Subsoil: Upper part—yellowish red silty clay loam; next part—strong brown silty clay loam that has grayish and brownish mottles; next part—strong brown gravelly silt loam that has grayish mottles; lower part—strong brown very gravelly silt loam that has grayish mottles
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 1.5 to 2.5 feet from December to March
Slope: 2 to 12 percent
Parent material: Thin loess over gravelly fluvial deposits or cherty limestone residuum

Sengtown
Surface layer: Dark yellowish brown gravelly silt loam
Subsurface layer: Strong brown gravelly silt loam
Subsoil: Upper part—yellowish red gravelly silty clay loam; lower part—red gravelly and very gravelly clay
Substratum: Chert
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 5 to 70 percent
Parent material: Interbedded cherty limestone and siltstone

Hawthorne
Surface layer: Dark brown gravelly silt loam
Subsurface layer: Yellowish brown gravelly silt loam
Subsoil: Strong brown very gravelly silt loam
Substratum: Fractured flinty chert with silty clay loam in the fractures; discontinuous bands of siltstone
Bedrock layer: Flinty chert and siltstone
Depth class: Moderately deep
Drainage class: Somewhat excessively drained
Seasonal high water table: None within a depth of 6 feet
Slope: 5 to 70 percent
Parent material: Interbedded cherty limestone and siltstone

Minor soils
- The somewhat poorly drained Chenneby and Arkabutla soils on broad flood plains
- The well drained Humphreys soils on alluvial fans and lower toeslopes
- The well drained Minvale and moderately well drained Tarklin soils on footslopes
- The moderately well drained Paden soils on stream terraces
- The excessively drained Riverby soils, well drained Pruitton and Ennis soils, and moderately well drained Lobelville soils on narrow flood plains

Use and Management

Major uses: Forestland

Cropland
Management concerns: Hawthorne, Sugargrove, and Sengtown—not suited because of droughtiness, low fertility, high content of gravel, and steep slopes in most areas; Lax—erodibility

Pasture and hayland
Management concerns: Hawthorne, Sugargrove, and Sengtown—droughtiness and low fertility, slope in the steeper areas; Lax—no significant concerns

Forestland
Management concerns: Hawthorne, Sugargrove, and Sengtown—restricted use of equipment; Lax—no significant concerns

Urban development
Management concerns: Hawthorne, Sugargrove, and Sengtown—slope; Lax—restricted permeability and wetness

Recreational development
Management concerns: Slope

2. Feliciana-Lexington-Smithdale

Dominantly nearly level to moderately sloping, well drained and moderately well drained soils that have a loamy surface layer and a loamy subsoil; on broad uplands

Setting

Location in the survey area: Western part
Landscape: Coastal Plain
Landform: Uplands

Landform position: Feliciana—nearly level to gently sloping ridgetops; Lexington—gently sloping ridges to moderately sloping side slopes; Smithdale—moderately sloping to steep side slopes
Slope: 0 to 25 percent

Composition

Percent of the survey area: 21.9
Feliciana soils: 28 percent
Lexington soils: 21 percent
Smithdale soils: 18 percent
Minor soils: 33 percent, including Calloway, Cascilla, Chenneby, Grenada, Iuka, Kurk, Loring, Ochlockonee, and Providence soils

Soil Characteristics

Feliciana
Surface layer: Brown silt loam
Subsurface layer: Brown silt loam
Subsoil: Upper part—strong brown silt loam; next part—brown silt loam; lower part—reddish brown silt loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 0 to 5 percent
Parent material: Deep loess

Lexington
Surface layer: Dark yellowish brown silt loam
Subsoil: Upper part—strong brown silty clay loam; next part—strong brown silt loam; next part—dark yellowish brown silt loam; next part—strong brown loam; lower part—yellowish red loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 2 to 20 percent
Parent material: Thin loess over loamy Coastal Plain sediments

Smithdale
Surface layer: Brown loam
Subsurface layer: Yellowish brown loam
Subsoil: Upper part—strong brown loam; next part—yellowish red clay loam; next part—yellowish red sandy clay loam; next part—red sandy clay loam; lower part—red sandy loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 8 to 45 percent
Parent material: Loamy Coastal Plain sediments

Minor soils
- The somewhat poorly drained Calloway and Kurk soils in concave positions and at the heads of some drainageways
- The well drained Cascilla and Ochlockonee soils, the moderately well drained Iuka soils, and the somewhat poorly drained Chenneby soils on flood plains and narrow drainageways

- The moderately well drained Loring and Grenada soils in slightly concave positions, commonly at the heads of drainageways
- The moderately well drained Providence soils in sloping, eroded areas

Use and Management

Major uses: Cultivated crops

Cropland
Management concerns: Erodibility where slopes are greater than 2 percent

Pasture and hayland
Management concerns: No significant concerns

Forestland
Management concerns: No significant concerns

Urban development
Management concerns: Feliciana—No significant concerns

Recreational development
Management concerns: No significant concerns

3. Lexington-Smithdale

Dominantly gently sloping to steep, well drained soils that have a loamy surface layer and a loamy subsoil; on upland ridgetops and side slopes

Setting

Location in the survey area: Central and eastern parts
Landscape: Coastal Plain
Landform: Uplands
Landform position: Lexington—broad to narrow, nearly level to moderately sloping ridgetops and strongly sloping to moderately steep side slopes; Smithdale—strongly sloping to steep side slopes
Slope: 0 to 45 percent

Composition

Percent of the survey area: 35.6
Lexington soils: 34 percent
Smithdale soils: 14 percent
Minor soils: 52 percent, including Chenneby, Deanburg, Enville, Feliciana, Iuka, Kurk, Ochlockonee, and Providence soils

Soil Characteristics

Lexington
Surface layer: Dark yellowish brown silt loam
Subsoil: Upper part—strong brown silty clay loam; next part—strong brown silt loam; next part—dark yellowish brown silt loam; next part—strong brown loam; lower part—yellowish red loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet

Slope: 0 to 15 percent
Parent material: Thin loess over loamy Coastal Plain sediments

Smithdale
Surface layer: Brown loam
Subsurface layer: Yellowish brown loam
Subsoil: Upper part—strong brown loam; next part—yellowish red clay loam; next part—yellowish red sandy clay loam; next part—red sandy clay loam; lower part—red sandy loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 8 to 45 percent
Parent material: Loamy Coastal Plain sediments

Minor soils
- The well drained Deanburg soils in highly convex positions and in some severely eroded, gently sloping to strongly sloping areas
- The well drained Feliciana soils on gently sloping ridge crests
- The somewhat poorly drained Kurk soils in concave positions
- The well drained Ochlockonee soils, moderately well drained Iuka soils, and somewhat poorly drained Enville and Chenneby soils; on flood plains and in narrow drainageways
- The moderately well drained Providence soils at the heads of drainageways and in slightly concave positions

Use and Management

Major uses: Cultivated crops, pasture, hayland, and forestland

Cropland
Management concerns: Lexington—erodibility where slopes are greater than 2 percent; Smithdale—erodibility and low fertility; most areas are too steep for cropland.

Pasture and hayland
Management concerns: Lexington—no significant concerns; Smithdale—low fertility, slope in the steeper areas

Forestland
Management concerns: Lexington—no significant concerns; Smithdale—erodibility and restricted use of equipment

Urban development
Management concerns: Slope in the steeper areas

Recreational development
Management concerns: Slope in the steeper areas

4. Dulac-Tippah-Smithdale-Arundel

Dominantly gently sloping to moderately steep, moderately well drained and well drained soils that have a loamy surface layer and a loamy or clayey subsoil; on uplands

Setting

Location in the survey area: Central part
Landscape: Coastal Plain

Landform: Uplands
Landform position: Dulac and Tippah—low, gently sloping to strongly sloping plains; Smithdale and Arundel—moderately steep side slopes
Slope: 2 to 25 percent

Composition

Percent of the survey area: 5.3
- Dulac soils: 20 percent
- Tippah soils: 12 percent
- Smithdale soils: 11 percent
- Arundel soils: 5 percent
- Minor soils: 52 percent, including Chenneby, Chickasaw, Enville, Falkner, Iuka, Luverne, and Providence soils

Soil Characteristics

Dulac
Surface layer: Yellowish brown silt loam
Subsoil: Upper part—strong brown silty clay loam; next part—dark yellowish brown silty clay loam that has brownish mottles; next part—dark yellowish brown silt loam that has grayish mottles; next part—strong brown and dark yellowish brown clay loam that has grayish mottles; lower part—mottled brownish, reddish, and grayish clay
Substratum: Mottled brownish and grayish clay over gray, horizontally bedded claystone
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 1 to 2 feet from December to April
Slope: 2 to 12 percent
Parent material: Thin loess over clayey Coastal Plain sediments

Tippah
Surface layer: Dark yellowish brown silt loam
Subsoil: Upper part—strong brown silty clay loam; next part—yellowish brown silt loam; next part—strong brown silty clay loam that has grayish mottles; next part—yellowish red clay that has grayish mottles; next part—red clay that has grayish mottles; lower part—red sandy clay that has grayish mottles
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 2 to 2.5 feet from December to April
Slope: 2 to 12 percent
Parent material: Thin loess over clayey Coastal Plain sediments

Smithdale
Surface layer: Brown loam
Subsurface layer: Yellowish brown loam
Subsoil: Upper part—strong brown loam; next part—yellowish red clay loam; next part—yellowish red sandy clay loam; next part—red sandy clay loam; lower part—red sandy loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 8 to 60 percent
Parent material: Loamy Coastal Plain sediments

Arundel

Surface layer: Brown fine sandy loam
Subsurface layer: Light yellowish brown gravelly loam
Subsoil: Upper part—yellowish red clay loam; lower part—yellowish red clay that has brownish mottles
Substratum: Gray claystone
Bedrock layer: Horizontally bedded claystone
Depth class: Moderately deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 12 to 25 percent
Parent material: Clayey Coastal Plain sediments (claystone)

Minor soils

- The well drained Chickasaw and Luverne soils on side slopes
- The somewhat poorly drained Enville and Chenneby soils and the poorly drained Rosebloom soils; on flood plains and in narrow drainageways
- The somewhat poorly drained Falkner soils in lower or concave positions
- The moderately well drained Providence soils, which form where a thin layer of loamy fluvial deposits is over the clay; in positions similar to those of the Dulac soils

Use and Management

Major uses: Cropland, pasture, hayland, forestland

Cropland

Management concerns: Slope (too steep for cropland); Dulac and Tippah—erodibility; Arundel—erodibility, low fertility, and slope

Pasture and hayland

Management concerns: Dulac and Tippah—no significant concerns; Arundel—low fertility and slope

Forestland

Management concerns: Dulac and Tippah—no significant concerns; Arundel—erodibility and restricted use of equipment

Urban development

Management concerns: Dulac and Tippah—restricted permeability and wetness, high shrink-swell potential in the lower areas; Arundel—slope, seepage, and high shrink-swell potential

Recreational development

Management concerns: Slope; Arundel, Dulac, and Tippah—wetness and restricted permeability

5. Saffell-Brandon-Providence-Smithdale-Lax

Dominantly gently sloping to very steep, well drained and moderately well drained soils that have a loamy or gravelly surface layer and a loamy or gravelly subsoil; on uplands

Setting

Location in the survey area: Northeastern part
Landscape: Coastal Plain
Landform: Uplands

Landform position: Saffell, Brandon, and Smithdale—narrow, strongly sloping ridgetops and moderately steep to very steep side slopes; Providence and Lax—wide to narrow, gently sloping to strongly sloping ridgetops and side slopes
Slope: 2 to 60 percent

Composition

Percent of the survey area: 6.6
Saffell soils: 32 percent
Brandon soils: 20 percent
Providence soils: 10 percent
Smithdale soils: 7 percent
Lax soils: 6 percent
Minor soils: 25 percent, including Arkabutla, Chenneby, Enville, Iuka, Lexington, Luverne, and Pruitton soils

Soil Characteristics

Saffell
Surface layer: Dark grayish brown gravelly silt loam
Subsurface layer: Light yellowish brown and yellowish brown very gravelly silt loam
Subsoil: Upper part—strong brown extremely gravelly sandy clay loam; lower part—strong brown extremely gravelly loam
Substratum: Yellowish red extremely gravelly fine sandy loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 5 to 60 percent
Parent material: Gravelly fluvial deposits

Brandon
Surface layer: Brown silt loam
Subsurface layer: Yellowish brown silt loam
Subsoil: Upper part—yellowish red silty clay loam; next part—reddish brown silty clay loam; next part—strong brown gravelly silt loam; lower part—yellowish red very gravelly silt loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 2 to 50 percent
Parent material: Thin loess over gravelly fluvial deposits

Providence
Surface layer: Dark yellowish brown silt loam
Subsoil: Upper part—dark yellowish brown silt loam; next part—yellowish brown silt loam that has brownish mottles; next part—yellowish brown silty clay loam that has grayish and brownish mottles; next part—yellowish brown silt loam that has grayish and brownish mottles; next part—yellowish brown loam that has grayish mottles; lower part—mottled reddish, brownish, yellowish, and grayish sandy clay loam
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 1.5 to 3 feet from January to March
Slope: 0 to 15 percent
Parent material: Thin loess over loamy Coastal Plain sediments

Smithdale

Surface layer: Brown loam
Subsurface layer: Yellowish brown loam
Subsoil: Upper part—strong brown loam; next part—yellowish red clay loam; next part—yellowish red sandy clay loam; next part—red sandy clay loam; lower part—red sandy loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 8 to 60 percent
Parent material: Loamy Coastal Plain sediments

Lax

Surface layer: Brown silt loam
Subsurface layer: Pale brown silt loam
Subsoil: Upper part—yellowish red silty clay loam; next part—strong brown silty clay loam that has grayish and brownish mottles; next part—strong brown gravelly silt loam that has grayish mottles; lower part—strong brown very gravelly silt loam that has grayish mottles
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 1.5 to 2.5 feet from December to March
Slope: 2 to 12 percent
Parent material: Thin loess over gravelly fluvial deposits

Minor soils

- The well drained Lexington and Luverne soils on side slopes
- The well drained Pruitton soils, moderately well drained Iuka soils, and somewhat poorly drained Enville, Chenneby, and Arkabutla soils; on flood plains and narrow drainageways

Use and Management

Major uses: Forestland, pasture, hayland, and cropland

Cropland

Management concerns: Saffell—not suited because of droughtiness, low fertility, high content of gravel, and steep slopes in most areas; Brandon—erodibility; slope in the steeper areas; Smithdale—erodibility and low fertility; slope in the steeper areas; Providence and Lax—erodibility

Pasture and hayland

Management concerns: Saffell—droughtiness and low fertility; slope in the steeper areas; Brandon—slope in the steeper areas; Smithdale—low fertility, slope in the steeper areas; Providence and Lax—no significant concerns

Forestland

Management concerns: Saffell, Smithdale, and Brandon—erodibility and restricted use of equipment in the steeper areas; Providence and Lax—no significant concerns

Urban development

Management concerns: Saffell, Smithdale, and Brandon—slope in the steeper areas; Providence and Lax—restricted permeability and wetness

Recreational development

Management concerns: Slope in the steeper areas

6. Providence-Smithdale-Lexington

Dominantly gently sloping to steep, moderately well drained and well drained soils that have a loamy surface layer and a loamy subsoil; on uplands

Setting

Location in the survey area: Eastern part
Landscape: Coastal Plain
Landform: Uplands
Landform position: Providence and Lexington—broad to narrow, gently sloping to moderately sloping ridgetops and strongly sloping side slopes; Smithdale—narrow, strongly sloping ridgetops and moderately steep to steep side slopes (fig. 3)
Slope: 2 to 45 percent

Composition

Percent of the survey area: 17.2
Smithdale soils: 39 percent
Providence soils: 17 percent
Lexington soils: 11 percent
Minor soils: 33 percent, including Arkabutla, Calloway, Chenneby, Enville, Iuka, Kurk, and Luverne soils

Soil Characteristics

Providence
Surface layer: Dark yellowish brown silt loam
Subsoil: Upper part—dark yellowish brown silt loam; next part—yellowish brown silt loam that has brownish mottles; next part—yellowish brown silty clay loam that

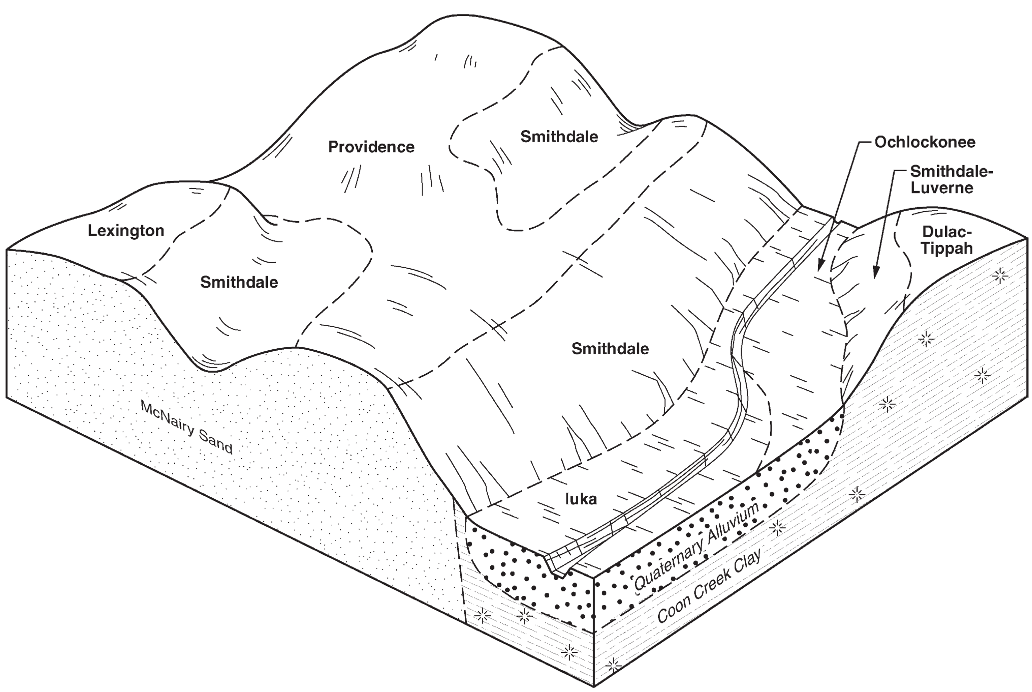

Figure 3.—Relationship of soils to parent material and topography in the Providence-Smithdale-Lexington and Dulac-Tippah-Smithdale-Arundel general soil map units.

has grayish and brownish mottles; next part—yellowish brown silt loam that has grayish and brownish mottles; next part—yellowish brown loam that has grayish mottles; lower part—mottled reddish, brownish, yellowish, and grayish sandy clay loam

Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 1.5 to 3 feet from January to March
Slope: 0 to 15 percent
Parent material: Thin loess over loamy Coastal Plain sediments

Smithdale
Surface layer: Brown loam
Subsurface layer: Yellowish brown loam
Subsoil: Upper part—strong brown loam; next part—yellowish red clay loam; next part—yellowish red sandy clay loam; next part—red sandy clay loam; lower part—red sandy loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 8 to 45 percent
Parent material: Loamy Coastal Plain sediments

Lexington
Surface layer: Dark yellowish brown silt loam
Subsoil: Upper part—strong brown silty clay loam; next part—strong brown silt loam; next part—dark yellowish brown silt loam; next part—strong brown loam; lower part—yellowish red loam
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: None within a depth of 6 feet
Slope: 0 to 15 percent
Parent material: Thin loess over loamy Coastal Plain sediments

Minor soils
- The moderately well drained Iuka soils and somewhat poorly drained Enville, Chenneby, and Arkabutla soils; on flood plains and narrow drainageways
- The somewhat poorly drained Kurk and Calloway soils in depressions and the concave areas at the heads of drains
- The well drained Luverne soils on narrow, convex ridgetops and side slopes

Use and Management

Major uses: Cropland, pasture, hayland, and forestland

Cropland
Management concerns: Providence—erodibility; Smithdale—erodibility and low fertility, slope in the steeper areas

Pasture and hayland
Management concerns: Providence—no significant concerns; Smithdale—low fertility, slope in the steeper areas

Forestland
Management concerns: Providence—no significant concerns; Smithdale—erodibility and restricted use of equipment

Urban development
Management concerns: Providence—restricted permeability and wetness; Smithdale—slope

Recreational development
Management concerns: Slope in the steeper areas

7. Grenada-Providence-Calloway

Dominantly nearly level to gently sloping, moderately well drained and somewhat poorly drained soils that have a loamy surface layer and a loamy subsoil; on broad uplands

Setting

Location in the survey area: North-central part
Landscape: Coastal Plain
Landform: Uplands
Landform position: Broad, nearly level to gently sloping ridgetops (fig. 4)
Slope: 0 to 5 percent

Composition

Percent of the survey area: 4
Grenada soils: 43 percent
Providence soils: 17 percent
Calloway soils: 9 percent
Minor soils: 31 percent, including Arkabutla, Chenneby, Enville, Feliciana, Iuka, Kurk, Loring, and Routon soils

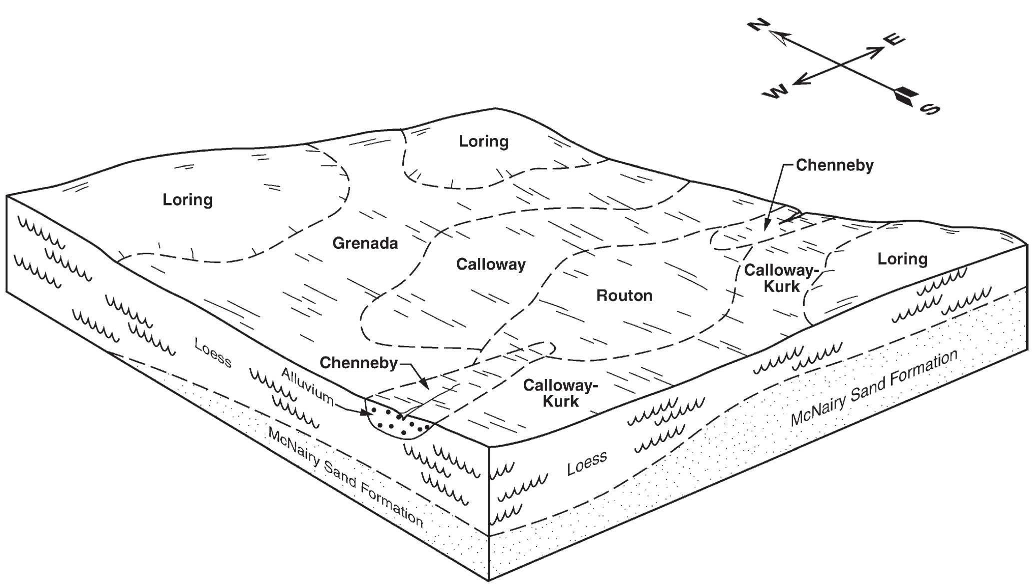

Figure 4.—Relationship of soils to parent material and topography in the Grenada-Providence-Calloway general soil map unit.

Soil Characteristics

Grenada
Surface layer: Brown silt loam
Subsurface layer: Brown silt loam
Subsoil: Upper part—yellowish brown silt loam that has brownish mottles; next part—light yellowish brown silt loam that has grayish and brownish mottles; next part—strong brown silty clay loam that has grayish mottles; lower part—brown silt loam that has grayish mottles
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 1.5 to 2.5 feet from January to April
Slope: 0 to 5 percent
Parent material: Deep loess

Providence
Surface layer: Dark yellowish brown silt loam
Subsoil: Upper part—dark yellowish brown silt loam; next part—yellowish brown silt loam that has brownish mottles; next part—yellowish brown silty clay loam that has grayish and brownish mottles; next part—yellowish brown silt loam that has grayish and brownish mottles; next part—yellowish brown loam that has grayish mottles; lower part—mottled reddish, brownish, yellowish, and grayish sandy clay loam
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 1.5 to 3 feet from January to March
Slope: 0 to 15 percent
Parent material: Thin loess over loamy Coastal Plain sediments

Calloway
Surface layer: Brown silt loam
Subsoil: Upper part—brown and light gray silt loam that has grayish and brownish mottles; next part—brown silt loam and that has grayish and brownish mottles; next part—brown silty clay loam that has brownish mottles; lower part—yellowish brown silt loam that has brownish mottles
Depth class: Very deep
Drainage class: Somewhat poorly drained
Seasonal high water table: Perched, at a depth of 1 to 2 feet from January to April
Slope: 0 to 5 percent
Parent material: Deep loess

Minor soils
- The somewhat poorly drained Arkabutla, Chenneby, and Enville soils and moderately well drained Iuka soils; on flood plains and in narrow drainageways
- The well drained Feliciana soils in high, slightly convex areas
- The somewhat poorly drained Kurk soils and poorly drained Routon soils; in concave and depressional positions
- The moderately well drained Loring soils in the higher and more convex positions

Use and Management

Major uses: Cultivated crops

Cropland
Management concerns: Erodibility where slopes are greater than 2 percent

Pasture and hayland
Management concerns: No significant concerns

Forestland
Management concerns: No significant concerns

Urban development
Management concerns: Restricted permeability and wetness

Recreational development
Management concerns: Wetness

8. Rosebloom-Arkabutla-Chenneby

Nearly level, somewhat poorly drained and poorly drained soils that have a loamy surface layer and a loamy subsoil; on wide flood plains

Setting

Location in the survey area: All parts
Landscape: Coastal Plain
Landform: Flood plains
Landform position: Wide, nearly level flood plains
Slope: 0 to 2 percent

Composition

Percent of the survey area: 8.7
Rosebloom soils: 33 percent
Arkabutla soils: 22 percent
Chenneby soils: 16 percent
Minor soils: 29 percent, including Bibb, Enville, Iuka, Ochlockonee, Providence, and Smithdale soils

Soil Characteristics

Rosebloom
Surface layer: Grayish brown silt loam
Subsoil: Gray silt loam that has brownish mottles
Substratum: Gray silt loam in upper part and dark gray fine sandy loam in lower part
Depth class: Very deep
Drainage class: Poorly drained
Seasonal high water table: Apparent, at the surface to a depth of 1 foot from January to March
Slope: 0 to 2 percent
Parent material: Loamy alluvium

Arkabutla
Surface layer: Brown silt loam
Subsoil: Upper part—Dark yellowish brown silt loam that has brownish mottles; next part—gray silt loam that has brownish mottles; lower part—gray silty clay loam that has brownish mottles
Substratum: Gray silt loam that has brownish mottles
Depth class: Very deep
Drainage class: Somewhat poorly drained
Seasonal high water table: Apparent, at a depth of 1.5 to 2.5 feet from January to April
Slope: 0 to 2 percent
Parent material: Loamy alluvium

Chenneby

Surface layer: Brown silt loam

Subsoil: Upper part—yellowish brown silt loam that has brownish mottles; next part—brown silt loam that has grayish mottles; next part—grayish brown silt loam; lower part—gray silt loam

Substratum: Gray silt loam in upper part and stratified layers of loam, silt loam, sandy loam, and loamy sand in lower part

Depth class: Very deep

Drainage class: Somewhat poorly drained

Seasonal high water table: Apparent, at a depth of 1 to 2.5 feet from January to March

Slope: 0 to 2 percent

Parent material: Loamy alluvium

Minor soils

- The poorly drained Bibb soils and somewhat poorly drained Enville soils, in areas with a sand influence, typically along old stream channels and near the edge of sandy side slopes
- The moderately well drained Iuka soils and well drained Ochlockonee soils; on natural levees along the stream channels
- The moderately well drained Providence soils on terraces adjacent to the major soils
- The well drained Smithdale soils on the lower side slopes

Use and Management

Major uses: Forestland

Cropland

Management concerns: Frequent flooding; wetness

Pasture and hayland

Management concerns: Frequent flooding; wetness

Forestland

Management concerns: Arkabutla and Chenneby—no significant concerns; Rosebloom—some areas are ponded, which results in timber kill

Urban development

Management concerns: Frequent flooding; wetness

Recreational development

Management concerns: Frequent flooding; wetness

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called non-contrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. The soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded, is a phase of the Chenneby series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Arkabutla-Rosebloom complex, 0 to 2 percent slopes, frequently flooded, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Hawthorne, Sengtown, and Sugargrove soils, 25 to 70 percent slopes, is an example.is an undifferentiated group in this survey area.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Urban land is an example.

Table 4 gives the acreage and proportionate extent of each map unit in the survey area. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils.

Ak—Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Major components
Arkabutla and similar soils: 91 to 100 percent

Contrasting inclusions
Rosebloom soils: 0 to 9 percent

Component Description

Arkabutla
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Flood plains
Hillslope position: None
Parent material: Silty alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.57 in/hr)
Available water capacity: Very high (About 12.3 inches)
Shrink-swell potential: Low (About 1.4 percent linear extensibility)
Flooding: Occasional
Ponding: None
Depth to seasonal water saturation: About 10 to 19 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 2w

Typical profile:

Surface layer—0 to 7 inches; brown silt loam that has grayish brown iron depletions; strongly acid

Subsoil—7 to 17 inches; dark yellowish brown silt loam that has yellowish brown masses of oxidized iron; strongly acid

Subsoil—17 to 25 inches; gray silt loam that has dark yellowish brown masses of oxidized iron; very strongly acid

Subsoil—25 to 36 inches; gray silty clay loam that has strong brown masses of oxidized iron; very strongly acid

Substratum—36 to 55 inches; gray silt loam; very strongly acid

Substratum—55 to 80 inches; gray silt loam that has strong brown masses of oxidized iron; very strongly acid

Use and Management

Cropland

- This soil is prime farmland where it is either protected from flooding or not frequently flooded during the growing season.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soil from scouring and to minimize the amount of crop residue lost to flooding.
- Small-grain crops can be damaged by flooding in winter and spring.

Pastureland

- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland

- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites

- Under normal weather conditions, this soil is subject to occasional flooding. The flooding can result in physical damage requiring costly repairs to buildings. Areas of this soil are therefore generally unsuitable as homesites. Some non-dwelling structures, such as farm outbuildings, may need special design to minimize the damage caused by flooding.

Septic tank absorption fields

- Areas of this soil are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Special design is needed to prevent flood damage to roads and bridges.

Ao—Arkabutla-Rosebloom complex, 0 to 2 percent slopes, frequently flooded

Map Unit Composition

Major components
Arkabutla and similar soils: 50 to 90 percent
Rosebloom and similar soils: 10 to 50 percent

Component Descriptions

Arkabutla
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Flood plains
Hillslope position: None
Parent material: Silty alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.57 in/hr)
Available water capacity: Very high (About 12.3 inches)
Shrink-swell potential: Low (About 1.4 percent linear extensibility)
Flooding: Frequent
Ponding: None
Depth to seasonal water saturation: About 10 to 19 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 5w
Typical profile:
Surface layer—0 to 7 inches; brown silt loam that has grayish brown iron depletions; strongly acid
Subsoil—7 to 17 inches; dark yellowish brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—17 to 25 inches; gray silt loam that has dark yellowish brown masses of oxidized iron; very strongly acid
Subsoil—25 to 36 inches; gray silty clay loam that has strong brown masses of oxidized iron; very strongly acid
Substratum—36 to 55 inches; gray silt loam; very strongly acid
Substratum—55 to 80 inches; gray silt loam that has strong brown masses of oxidized iron; very strongly acid

Rosebloom
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Flood plains
Hillslope position: None
Parent material: Silty alluvium over loamy alluvium
Slope: 0 to 2 percent
Restrictive feature: None

Drainage class: Poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.5 inches)
Shrink-swell potential: Low (About 1.7 percent linear extensibility)
Flooding: Frequent
Ponding: None
Depth to seasonal water saturation: About 0 to 12 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 6w
Typical profile:
Surface layer—0 to 6 inches; grayish brown silt loam that has yellowish red masses of oxidized iron; strongly acid
Subsoil—6 to 28 inches; gray silt loam that has strong brown masses of oxidized iron; strongly acid
Substratum—28 to 60 inches; gray silt loam that has strong brown masses of oxidized iron; strongly acid
Substratum—60 to 80 inches; dark gray fine sandy loam; very strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.
- Typically, crops are not grown on these soils because of the frequent flooding.

Pastureland
- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland
- Standing water can restrict root respiration and thereby inhibit the growth of some species of seedlings.
- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The frequent flooding greatly increases the risk of damage to buildings. Because of the flooding, these soils are generally unsuited to building site development.

Septic tank absorption fields
- Areas of these soils are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Special design is needed to prevent flood damage to roads and bridges.

ArC2—Armour silt loam, 5 to 12 percent slopes, eroded

Map Unit Composition

Major components
Armour and similar soils: 91 to 100 percent

Contrasting inclusions
Paden soils: 0 to 9 percent

Component Description

Armour
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Terraces
Slope shape and hillslope position: Convex; footslopes
Parent material: Silty alluvium
Slope: 5 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.0 inches)
Shrink-swell potential: Low (About 2.4 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 6 inches; dark yellowish brown silt loam; moderately acid
Subsoil—6 to 16 inches; dark yellowish brown silt loam; strongly acid
Subsoil—16 to 48 inches; yellowish brown silt loam; moderately acid
Subsoil—48 to 80 inches; yellowish brown silt loam; moderately acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

AuE2—Arundel-Chickasaw complex, 12 to 25 percent slopes, eroded

Map Unit Composition

Major components
Arundel and similar soils: 50 to 90 percent
Chickasaw and similar soils: 10 to 50 percent

Contrasting inclusions
Dulac soils: 0 to 10 percent

Component Descriptions

Arundel
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Linear; backslopes and footslopes
Parent material: Clayey marine deposits
Slope: 12 to 25 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Low (About 4.4 inches)
Shrink-swell potential: Very high (About 9.1 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 6e

Typical profile:
Surface layer—0 to 2 inches; brown fine sandy loam; strongly acid
Subsoil—2 to 8 inches; light yellowish brown loam; strongly acid
Subsoil—8 to 19 inches; yellowish red channery clay loam; strongly acid
Subsoil—19 to 30 inches; yellowish red clay; strongly acid
Substratum—30 to 80 inches; bedrock

Chickasaw
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; backslopes and footslopes
Parent material: Clayey marine deposits
Slope: 12 to 25 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Well drained
Slowest permeability: Impermeable (About 0.00 in/hr)
Available water capacity: Low (About 5.3 inches)
Shrink-swell potential: Very high (About 12.3 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 3 inches; very dark grayish brown silt loam; strongly acid
Subsurface layer—3 to 6 inches; light olive brown silt loam; strongly acid
Subsoil—6 to 13 inches; dark yellowish brown silty clay; moderately acid
Subsoil—13 to 23 inches; strong brown clay; moderately acid
Subsoil—23 to 42 inches; strong brown clay; strongly acid
Substratum—42 to 80 inches; grayish brown bedrock

Use and Management

Cropland
- These soils are generally not suited to cropland.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope increases excavation costs, increases the hazard of further erosion during construction of haul roads and log landings, restricts the use of equipment during site preparation for planting and seeding, creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings,

reduces the efficiency of mechanical planting equipment, and restricts the use of equipment for site preparation to the drier periods.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- Severe shrinking and swelling of the soils can crack foundations and basement walls. The foundations and other structures generally require special design and construction or intensive maintenance.
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs are required to ensure satisfactory performance.
- In some areas, the high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material from shallow excavations.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of shrinking and swelling, these soils may not be suitable for use as base material for local roads and streets.
- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

BrB2—Brandon silt loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components
Brandon and similar soils: 91 to 100 percent

Contrasting inclusions
Lax soils: 0 to 9 percent

Component Description

Brandon
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Hills
Slope shape and hillslope position: Linear; summits
Parent material: Loess over gravelly fluviomarine deposits
Slope: 2 to 5 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.9 inches)

Shrink-swell potential: Low (About 1.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Low
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 1 inch; brown silt loam; very strongly acid
Subsurface layer—1 to 7 inches; yellowish brown silt loam; extremely acid
Subsoil—7 to 20 inches; yellowish red silty clay loam; very strongly acid
Subsoil—20 to 29 inches; reddish brown silty clay loam; strongly acid
Subsoil—29 to 36 inches; strong brown gravelly silt loam; very strongly acid
Subsoil—36 to 68 inches; yellowish red very gravelly loam; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

BrC2—Brandon silt loam, 5 to 12 percent slopes, eroded

Map Unit Composition

Major components
Brandon and similar soils: 82 to 100 percent

Contrasting inclusions
Lax soils: 0 to 9 percent
Saffell soils: 0 to 9 percent

Component Description

Brandon
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Hills
Slope shape and hillslope position: Linear; summits and shoulders
Parent material: Loess over gravelly fluviomarine deposits
Slope: 5 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Low (About 1.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 1 inch; brown silt loam; very strongly acid
Subsurface layer—1 to 7 inches; yellowish brown silt loam; extremely acid
Subsoil—7 to 20 inches; yellowish red silty clay loam; very strongly acid
Subsoil—20 to 29 inches; reddish brown silty clay loam; strongly acid
Subsoil—29 to 36 inches; strong brown gravelly silt loam; very strongly acid
Subsoil—36 to 68 inches; yellowish red very gravelly loam; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

BrC3—Brandon silty clay loam, 5 to 12 percent slopes, severely eroded

Map Unit Composition

Major components
Brandon and similar soils: 90 to 100 percent

Component Description

Brandon
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Hills
Slope shape and hillslope position: Convex; summits and shoulders
Parent material: Loess over gravelly fluviomarine deposits
Slope: 5 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Low (About 2.2 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 4 inches; yellowish brown silty clay loam; very strongly acid
Subsoil—4 to 29 inches; yellowish red silty clay loam; strongly acid
Subsoil—29 to 36 inches; strong brown gravelly silt loam; very strongly acid
Subsoil—36 to 80 inches; yellowish red very gravelly loam; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.

- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

CaB2—Calloway silt loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components
Calloway and similar soils: 95 to 100 percent

Component Description

Calloway
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; summits and footslopes
Parent material: Loess
Slope: 2 to 5 percent
Depth to restrictive feature: 18 to 30 inches to fragipan
Drainage class: Somewhat poorly drained

Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Low (About 2.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 10 to 14 inches (perched)
Runoff class: Very low
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 6 inches; brown silt loam; moderately acid
Subsoil—6 to 11 inches; brown silt loam that has yellowish brown masses of oxidized iron; moderately acid
Subsoil—11 to 21 inches; brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsurface layer—11 to 21 inches; light gray silt loam; strongly acid
Subsoil—21 to 34 inches; brown silty clay loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—34 to 80 inches; yellowish brown silt loam that has grayish brown iron depletions; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- The rooting depth may be restricted by a dense soil layer.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This map unit is poorly suited to building site development. Special design may be needed to prevent the wetness from causing damage to structures. Because of the seasonal high water table, the period when excavations can be made may be restricted, a higher degree of construction site development may be required, and extra building maintenance may be necessary.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

CkA—Calloway-Kurk complex, 0 to 2 percent slopes

Map Unit Composition

Major components
Calloway and similar soils: 50 to 65 percent
Kurk and similar soils: 35 to 50 percent

Contrasting inclusions
Routon soils: 0 to 9 percent

Component Descriptions

Calloway
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; summits and footslopes
Parent material: Loess
Slope: 0 to 2 percent
Depth to restrictive feature: 18 to 30 inches to fragipan
Drainage class: Somewhat poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Low (About 2.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 10 to 14 inches (perched)
Runoff class: Very low
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 6 inches; brown silt loam; moderately acid
Subsoil—6 to 11 inches; brown silt loam that has yellowish brown masses of oxidized iron; moderately acid
Subsoil—11 to 21 inches; brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsurface layer—11 to 21 inches; light gray silt loam; strongly acid
Subsoil—21 to 34 inches; brown silty clay loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—34 to 80 inches; yellowish brown silt loam that has grayish brown iron depletions; strongly acid

Kurk
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Terraces
Slope shape and hillslope position: Concave; footslopes
Parent material: Loess over loamy fluviomarine deposits
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Somewhat poorly drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.4 inches)
Shrink-swell potential: Low (About 2.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 8 to 18 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 7 inches; brown silt loam that has light brownish gray iron depletions; moderately acid
Subsoil—7 to 12 inches; light yellowish brown silt loam that has light brownish gray iron depletions; moderately acid
Subsurface layer—12 to 21 inches; light gray silt; strongly acid
Subsoil—21 to 45 inches; gray silty clay loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—45 to 56 inches; light brownish gray silt loam that has yellowish brown masses of oxidized iron; very strongly acid
Subsoil—56 to 66 inches; light yellowish brown silt loam that has light gray iron depletions; strongly acid
Subsoil—66 to 80 inches; brown loam that has yellowish red masses of oxidized iron; strongly acid

Use and Management

Cropland
- This map unit is prime farmland where it has been drained.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if these soils are tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- The rooting depth may be restricted by a dense soil layer.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland

- The low strength of the soils increases the cost of constructing haul roads and log landings.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites

- This map unit is poorly suited to building site development. Special design may be needed to prevent the wetness from causing damage to structures. Because of the seasonal high water table, the period when excavations can be made may be restricted, a higher degree of construction site development may be required, and extra building maintenance may be necessary.

Septic tank absorption fields

- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets

- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

Cl—Cascilla silt loam, 0 to 3 percent slopes, rarely flooded

Map Unit Composition

Major components
Cascilla and similar soils: 91 to 100 percent

Contrasting inclusions
Chenneby soils: 0 to 9 percent

Component Description

Cascilla
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Flood plains
Hillslope position: None
Parent material: Silty alluvium over loamy alluvium
Slope: 0 to 3 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.9 inches)
Shrink-swell potential: Low (About 1.1 percent linear extensibility)
Flooding: Rare
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Low
Land capability classification (nonirrigated): 1
Typical profile:
Surface layer—0 to 8 inches; dark yellowish brown silt loam; slightly acid
Subsoil—8 to 15 inches; yellowish brown silt loam; moderately acid
Subsoil—15 to 24 inches; dark brown silt loam that has yellowish brown masses of oxidized iron; strongly acid

Subsoil—24 to 35 inches; yellowish brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—35 to 49 inches; brown silt loam that has yellowish brown iron-manganese masses; strongly acid
Subsoil—49 to 65 inches; yellowish brown silt loam that has yellowish brown iron-manganese masses; strongly acid
Substratum—65 to 80 inches; brown fine sandy loam that has yellowish brown iron-manganese masses; strongly acid

Use and Management

Cropland
- All areas of this soil are prime farmland.
- Careful selection and application of chemicals and fertilizers reduce the hazard of groundwater contamination.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.

Building sites
- Under unusual weather conditions, this soil is subject to rare flooding. The flooding can result in physical damage requiring costly repairs to buildings. Areas of this soil are therefore generally unsuitable as homesites. Some non-dwelling structures, such as farm outbuildings, may need special design to minimize the damage caused by flooding.

Septic tank absorption fields
- Areas of this soil are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Special design is needed to prevent flood damage to roads and bridges.

Cn—Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Major components
Chenneby and similar soils: 82 to 100 percent

Contrasting inclusions
Rosebloom soils: 0 to 9 percent

Component Description

Chenneby
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Flood plains
Hillslope position: None
Parent material: Silty alluvium over loamy alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.57 in/hr)
Available water capacity: High (About 10.4 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: Occasional
Ponding: None
Depth to seasonal water saturation: About 12 to 30 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 8 inches; brown silt loam; moderately acid
Subsoil—8 to 19 inches; yellowish brown silt loam that has yellowish red masses of oxidized iron; strongly acid
Subsoil—19 to 32 inches; brown silt loam that has yellowish red masses of oxidized iron; very strongly acid
Subsoil—32 to 40 inches; grayish brown silt loam that has yellowish red masses of oxidized iron; very strongly acid
Subsoil—40 to 50 inches; gray silt loam that has yellowish red masses of oxidized iron; very strongly acid
Substratum—50 to 57 inches; gray silt loam that has strong brown masses of oxidized iron; strongly acid
Substratum—57 to 80 inches; gray stratified loamy sand; very strongly acid

Use and Management

Cropland
- This soil is prime farmland where it is either protected from flooding or not frequently flooded during the growing season.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soil from scouring and to minimize the amount of crop residue lost to flooding.
- Small-grain crops can be damaged by flooding in winter and spring.

Pastureland
- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland

- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled fire can result in a loss of soil productivity.

Building sites

- Under normal weather conditions, this soil is subject to occasional flooding. The flooding can result in physical damage requiring costly repairs to buildings. Areas of this soil are therefore generally unsuitable as homesites. Some non-dwelling structures, such as farm outbuildings, may need special design to minimize the damage caused by flooding.
- Because of the high content of sand or gravel in the soil, the resistance to sloughing is reduced in shallow excavations and the excavation walls are unstable.

Septic tank absorption fields

- Areas of this soil are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets

- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Special design is needed to prevent flood damage to roads and bridges.

CVA—Chenneby, Enville, and Arkabutla soils, 0 to 2 percent slopes, frequently flooded

Map Unit Composition

Major components
Chenneby and similar soils: 0 to 100 percent
Enville and similar soils: 0 to 100 percent
Arkabutla and similar soils: 0 to 100 percent

Contrasting inclusions
Rosebloom soils: 0 to 9 percent

Component Descriptions

Chenneby
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Flood plains
Hillslope position: None
Parent material: Silty alluvium over loamy alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Somewhat poorly drained

Slowest permeability: Moderate (About 0.57 in/hr)
Available water capacity: High (About 10.4 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: Frequent
Ponding: None
Depth to seasonal water saturation: About 12 to 30 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 4w
Typical profile:
Surface layer—0 to 8 inches; brown silt loam; moderately acid
Subsoil—8 to 19 inches; yellowish brown silt loam that has yellowish red masses of oxidized iron; strongly acid
Subsoil—19 to 32 inches; brown silt loam that has yellowish red masses of oxidized iron; very strongly acid
Subsoil—32 to 40 inches; grayish brown silt loam that has yellowish red masses of oxidized iron; very strongly acid
Subsoil—40 to 50 inches; gray silt loam that has yellowish red masses of oxidized iron; very strongly acid
Substratum—50 to 57 inches; gray silt loam that has strong brown masses of oxidized iron; strongly acid
Substratum—57 to 80 inches; gray stratified loamy sand; very strongly acid

Enville
Major land resource area: 133A—Southern Coastal Plain
Landform: Flood plains
Hillslope position: None
Parent material: Coarse-loamy alluvium over sandy alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: Frequent
Ponding: None
Depth to seasonal water saturation: About 12 to 18 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 4w
Typical profile:
Surface layer—0 to 5 inches; dark yellowish brown silt loam; moderately acid
Subsoil—5 to 9 inches; yellowish brown silt loam; strongly acid
Substratum—9 to 13 inches; light yellowish brown silt loam that has light brownish gray iron depletions; strongly acid
Substratum—13 to 20 inches; light brownish gray sandy loam that has yellowish brown masses of oxidized iron; strongly acid
Substratum—20 to 29 inches; light yellowish brown loamy sand that has brownish yellow masses of oxidized iron; strongly acid
Substratum—29 to 39 inches; gray sandy loam that has yellowish brown masses of oxidized iron; strongly acid
Substratum—39 to 45 inches; light gray sand; strongly acid
Substratum—45 to 80 inches; grayish brown gravelly loamy sand; strongly acid

Arkabutla
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Flood plains

Hillslope position: None
Parent material: Silty alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.57 in/hr)
Available water capacity: Very high (About 12.3 inches)
Shrink-swell potential: Low (About 1.4 percent linear extensibility)
Flooding: Frequent
Ponding: None
Depth to seasonal water saturation: About 10 to 19 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 4w
Typical profile:
Surface layer—0 to 7 inches; brown silt loam that has grayish brown iron depletions; strongly acid
Subsoil—7 to 17 inches; dark yellowish brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—17 to 25 inches; gray silt loam that has dark yellowish brown masses of oxidized iron; very strongly acid
Subsoil—25 to 36 inches; gray silty clay loam that has strong brown masses of oxidized iron; very strongly acid
Substratum—36 to 55 inches; gray silt loam; very strongly acid
Substratum—55 to 80 inches; gray silt loam that has strong brown masses of oxidized iron; very strongly acid

Use and Management

Cropland
- Typically, crops are not grown on these soils because of the frequent flooding.
- This map unit is prime farmland where it has been drained and either is protected from flooding or is not frequently flooded during the growing season.
- Clods can form if these soils are tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soils from scouring and to minimize the amount of crop residue lost to flooding.

Pastureland
- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland
- Standing water can restrict root respiration and thereby inhibit the growth of some species of seedlings.
- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.

- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled fire can result in a loss of soil productivity.

Building sites
- The frequent flooding greatly increases the risk of damage to buildings. Because of the flooding, these soils are generally unsuited to building site development.
- Because of the high content of sand or gravel in the soils, the resistance to sloughing is reduced in shallow excavations and the excavation walls are unstable.

Septic tank absorption fields
- Areas of these soils are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Special design is needed to prevent flood damage to roads and bridges.

DaC3—Deanburg clay loam, 5 to 8 percent slopes, severely eroded

Map Unit Composition

Major components
Deanburg and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Deanburg
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; summits
Parent material: Loamy eolian deposits over sandy eolian deposits
Slope: 5 to 8 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.5 inches)
Shrink-swell potential: Low (About 2.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 6 inches; brown clay loam; moderately acid

Subsoil—6 to 16 inches; strong brown clay loam; moderately acid
Subsoil—16 to 30 inches; strong brown sandy clay loam; moderately acid
Subsoil—30 to 80 inches; strong brown sandy loam and yellow sand; moderately acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.
- Because of the high content of sand or gravel in the soil, the resistance to sloughing is reduced in shallow excavations and the excavation walls are unstable.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.

DeB3—Deanburg loam, 2 to 5 percent slopes, severely eroded

Map Unit Composition

Major components
Deanburg and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Deanburg
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; summits
Parent material: Loamy eolian deposits over sandy eolian deposits
Slope: 2 to 5 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 5.7 inches)
Shrink-swell potential: Low (About 2.2 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Low
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 3 inches; brown loam; moderately acid
Subsoil—3 to 23 inches; strong brown sandy clay loam; strongly acid
Subsoil—23 to 30 inches; strong brown sandy loam; strongly acid
Subsoil—30 to 80 inches; strong brown sandy loam and yellow sand; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of

constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.
- Because of the high content of sand or gravel in the soil, the resistance to sloughing is reduced in shallow excavations and the excavation walls are unstable.

Septic tank absorption fields
- Areas of this soil are well suited as sites for septic tank absorption fields.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.

DeC2—Deanburg loam, 5 to 8 percent slopes, eroded

Map Unit Composition

Major components
Deanburg and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Deanburg
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; summits
Parent material: Loamy eolian deposits over sandy eolian deposits
Slope: 5 to 8 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 5.7 inches)
Shrink-swell potential: Low (About 2.2 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 3 inches; brown loam; moderately acid
Subsoil—3 to 23 inches; strong brown sandy clay loam; strongly acid
Subsoil—23 to 30 inches; strong brown sandy loam; strongly acid
Subsoil—30 to 80 inches; strong brown sandy loam and yellow sand; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.

- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.
- Because of the high content of sand or gravel in the soil, the resistance to sloughing is reduced in shallow excavations and the excavation walls are unstable.

Septic tank absorption fields
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.

DnB2—Deanburg silt loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components
Deanburg and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Deanburg
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; summits
Parent material: Loamy eolian deposits over sandy eolian deposits
Slope: 2 to 5 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: Low (About 2.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Low
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 6 inches; dark yellowish brown silt loam; moderately acid
Subsoil—6 to 26 inches; brownish yellow sandy clay loam; moderately acid
Subsoil—26 to 32 inches; light yellowish brown clay loam; moderately acid
Subsoil—32 to 40 inches; light yellowish brown sandy loam; moderately acid
Subsoil—40 to 80 inches; very pale brown sandy loam and light yellowish brown sand; moderately acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.
- Because of the high content of sand or gravel in the soil, the resistance to sloughing is reduced in shallow excavations and the excavation walls are unstable.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.

DtB2—Dulac-Tippah complex, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components
Dulac and similar soils: 50 to 90 percent
Tippah and similar soils: 10 to 50 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Descriptions

Dulac
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Linear; summits
Parent material: Loess over clayey marine deposits
Slope: 2 to 5 percent
Depth to restrictive feature: Greater than 60 inches to bedrock; 16 to 24 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.6 inches)
Shrink-swell potential: Moderate (About 4.1 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 10 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 5 inches; yellowish brown silt loam; moderately acid
Subsoil—5 to 13 inches; strong brown silty clay loam; strongly acid
Subsoil—13 to 19 inches; dark yellowish brown silty clay loam that has light yellowish brown clay depletions; strongly acid
Subsoil—19 to 28 inches; dark yellowish brown silt loam that has light brownish gray iron depletions; very strongly acid
Subsoil—28 to 33 inches; 60 percent strong brown and 40 percent dark yellowish brown clay loam that has light brownish gray iron depletions; very strongly acid
Subsoil—33 to 56 inches; red, strong brown, and gray clay; very strongly acid
Substratum—56 to 64 inches; light yellowish brown, grayish brown, dark yellowish brown, and light brownish gray clay that has strong brown iron-manganese masses; very strongly acid
Substratum—64 to 80 inches; gray, claystone bedrock

Tippah
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Linear; summits
Parent material: Loess over clayey marine deposits

Slope: 2 to 5 percent
Restrictive feature: None
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 11.0 inches)
Shrink-swell potential: Moderate (About 4.7 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 17 to 23 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 5 inches; dark yellowish brown silt loam; moderately acid
Subsoil—5 to 10 inches; strong brown silty clay loam; strongly acid
Subsoil—10 to 15 inches; yellowish brown silt loam that has yellowish red iron-manganese masses; strongly acid
Subsoil—15 to 20 inches; strong brown silty clay loam that has light brownish gray iron depletions; strongly acid
Subsoil—20 to 26 inches; yellowish red clay that has red iron-manganese masses; very strongly acid
Subsoil—26 to 73 inches; red clay that has light brownish gray iron depletions; very strongly acid
Subsoil—73 to 80 inches; red sandy clay that has light brownish gray iron depletions; very strongly acid

Use and Management

Cropland
- All areas of this map unit are prime farmland.
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if these soils are tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material and the high content of clay.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The low strength of the soils increases the cost of constructing haul roads and log landings.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- These soils are well suited to building site development.
- In some areas, the high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material from shallow excavations.

Septic tank absorption fields
- The limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of properly installing effluent distribution lines.
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

DtB3—Dulac-Tippah complex, 2 to 5 percent slopes, severely eroded

Map Unit Composition

Major components
Dulac and similar soils: 50 to 90 percent
Tippah and similar soils: 10 to 50 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Descriptions

Dulac
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Linear; summits
Parent material: Loess over clayey marine deposits
Slope: 2 to 5 percent
Depth to restrictive feature: Greater than 60 inches to bedrock; 12 to 24 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.1 inches)
Shrink-swell potential: Moderate (About 4.1 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 8 to 12 inches (perched)
Runoff class: Very high

Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 3 inches; yellowish brown silt loam; moderately acid
Subsoil—3 to 15 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—15 to 30 inches; dark yellowish brown silt loam that has light brownish gray iron depletions; strongly acid
Subsoil—30 to 33 inches; dark yellowish brown and strong brown silty clay loam that has light brownish gray iron depletions; very strongly acid
Subsoil—33 to 64 inches; strong brown, grayish brown, light yellowish brown, dark yellowish brown, and light brownish gray clay; very strongly acid
Substratum—64 to 80 inches; strong brown, grayish brown, light yellowish brown, dark yellowish brown, and light brownish gray clay that has strong brown iron-manganese masses; very strongly acid

Tippah
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; summits
Parent material: Loess over clayey marine deposits
Slope: 2 to 5 percent
Restrictive feature: None
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 11.2 inches)
Shrink-swell potential: Moderate (About 4.7 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 12 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 3 inches; yellowish brown silt loam; moderately acid
Subsoil—3 to 21 inches; yellowish brown silty clay loam; strongly acid
Subsoil—21 to 34 inches; yellowish brown silty clay loam that has light brownish gray iron depletions; strongly acid
Subsoil—34 to 80 inches; yellowish brown clay that has red iron-manganese masses; very strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soils to hold moisture.
- Clods can form if these soils are tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material and the high content of clay.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- This soil is well suited to building site development.
- In some areas, the high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material from shallow excavations.

Septic tank absorption fields
- The limited depth to bedrock reduces the filtering capacity of the soils and greatly increases the difficulty of properly installing effluent distribution lines.
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

DtC2—Dulac-Tippah complex, 5 to 8 percent slopes, eroded

Map Unit Composition

Major components
Dulac and similar soils: 50 to 90 percent
Tippah and similar soils: 10 to 50 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Descriptions

Dulac
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; summits and shoulders

Parent material: Loess over clayey marine deposits
Slope: 5 to 8 percent
Depth to restrictive feature: Greater than 60 inches to bedrock; 16 to 24 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.6 inches)
Shrink-swell potential: Moderate (About 4.1 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 10 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 5 inches; yellowish brown silt loam; moderately acid
Subsoil—5 to 13 inches; strong brown silty clay loam; strongly acid
Subsoil—13 to 19 inches; dark yellowish brown silty clay loam that has light yellowish brown clay depletions; strongly acid
Subsoil—19 to 28 inches; dark yellowish brown silt loam that has light brownish gray iron depletions; very strongly acid
Subsoil—28 to 33 inches; 60 percent strong brown and 40 percent dark yellowish brown clay loam that has light brownish gray iron depletions; very strongly acid
Subsoil—33 to 56 inches; red, strong brown, and gray clay; very strongly acid
Substratum—56 to 64 inches; light yellowish brown, grayish brown, dark yellowish brown, and light brownish gray clay that has strong brown iron-manganese masses; very strongly acid
Substratum—64 to 80 inches; gray, claystone bedrock

Tippah
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Linear; summits
Parent material: Loess over clayey marine deposits
Slope: 5 to 8 percent
Restrictive feature: None
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 11.0 inches)
Shrink-swell potential: Moderate (About 4.7 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 17 to 23 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 5 inches; dark yellowish brown silt loam; moderately acid
Subsoil—5 to 10 inches; strong brown silty clay loam; strongly acid
Subsoil—10 to 15 inches; yellowish brown silt loam that has yellowish red iron-manganese masses; strongly acid
Subsoil—15 to 20 inches; strong brown silty clay loam that has light brownish gray iron depletions; strongly acid
Subsoil—20 to 26 inches; yellowish red clay that has red iron-manganese masses; very strongly acid
Subsoil—26 to 73 inches; red clay that has light brownish gray iron depletions; very strongly acid

Subsoil—73 to 80 inches; red sandy clay that has light brownish gray iron depletions; very strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if these soils are tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material and the high content of clay.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The low strength of the soils increases the cost of constructing haul roads and log landings.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- These soils are well suited to building site development.
- In some areas, the high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material from shallow excavations.

Septic tank absorption fields
- The limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of properly installing effluent distribution lines.
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets

- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

DtC3—Dulac-Tippah complex, 5 to 8 percent slopes, severely eroded

Map Unit Composition

Major components
Dulac and similar soils: 50 to 90 percent
Tippah and similar soils: 10 to 50 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Descriptions

Dulac
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; summits and shoulders
Parent material: Loess over clayey marine deposits
Slope: 5 to 8 percent
Depth to restrictive feature: Greater than 60 inches to bedrock; 12 to 24 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.1 inches)
Shrink-swell potential: Moderate (About 4.1 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 8 to 12 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 3 inches; yellowish brown silt loam; moderately acid
Subsoil—3 to 15 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—15 to 30 inches; dark yellowish brown silt loam that has light brownish gray iron depletions; strongly acid
Subsoil—30 to 33 inches; dark yellowish brown and strong brown silty clay loam that has light brownish gray iron depletions; very strongly acid
Subsoil—33 to 64 inches; strong brown, grayish brown, light yellowish brown, dark yellowish brown, and light brownish gray clay; very strongly acid
Substratum—64 to 80 inches; strong brown, grayish brown, light yellowish brown, dark yellowish brown, and light brownish gray clay that has strong brown iron-manganese masses; very strongly acid

Tippah
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; summits
Parent material: Loess over clayey marine deposits
Slope: 5 to 8 percent

Restrictive feature: None
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 11.2 inches)
Shrink-swell potential: Moderate (About 4.7 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 12 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 3 inches; yellowish brown silt loam; moderately acid
Subsoil—3 to 21 inches; yellowish brown silty clay loam; strongly acid
Subsoil—21 to 34 inches; yellowish brown silty clay loam that has light brownish gray iron depletions; strongly acid
Subsoil—34 to 80 inches; yellowish brown clay that has red iron-manganese masses; very strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if these soils are tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material and the high content of clay.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of

constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- These soils are well suited to building site development.
- In some areas, the high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material from shallow excavations.

Septic tank absorption fields
- The limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of properly installing effluent distribution lines.
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

DtD2—Dulac-Tippah complex, 8 to 12 percent slopes, eroded

Map Unit Composition

Major components
Dulac and similar soils: 50 to 90 percent
Tippah and similar soils: 10 to 50 percent

Contrasting inclusions
Arundel soils: 0 to 5 percent
Luverne soils: 0 to 5 percent

Component Descriptions

Dulac
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; backslopes
Parent material: Loess over clayey marine deposits
Slope: 8 to 12 percent
Depth to restrictive feature: Greater than 60 inches to bedrock; 16 to 24 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.6 inches)
Shrink-swell potential: Moderate (About 4.1 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 10 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 5 inches; yellowish brown silt loam; moderately acid

Subsoil—5 to 13 inches; strong brown silty clay loam; strongly acid
Subsoil—13 to 19 inches; dark yellowish brown silty clay loam that has light yellowish brown clay depletions; strongly acid
Subsoil—19 to 28 inches; dark yellowish brown silt loam that has light brownish gray iron depletions; very strongly acid
Subsoil—28 to 33 inches; 60 percent strong brown and 40 percent dark yellowish brown clay loam that has light brownish gray iron depletions; very strongly acid
Subsoil—33 to 56 inches; red, strong brown, and gray clay; very strongly acid
Substratum—56 to 64 inches; light yellowish brown, grayish brown, dark yellowish brown, and light brownish gray clay that has strong brown iron-manganese masses; very strongly acid
Substratum—64 to 80 inches; gray, claystone bedrock

Tippah
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; shoulders and backslopes
Parent material: Loess over clayey marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 11.0 inches)
Shrink-swell potential: Moderate (About 4.7 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 17 to 23 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 5 inches; dark yellowish brown silt loam; moderately acid
Subsoil—5 to 10 inches; strong brown silty clay loam; strongly acid
Subsoil—10 to 15 inches; yellowish brown silt loam that has yellowish red iron-manganese masses; strongly acid
Subsoil—15 to 20 inches; strong brown silty clay loam that has light brownish gray iron depletions; strongly acid
Subsoil—20 to 26 inches; yellowish red clay that has red iron-manganese masses; very strongly acid
Subsoil—26 to 73 inches; red clay that has light brownish gray iron depletions; very strongly acid
Subsoil—73 to 80 inches; red sandy clay that has light brownish gray iron depletions; very strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if these soils are tilled when wet.
- Compaction can be minimized by controlling traffic.

- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material and the high content of clay.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The low strength of the soils increases the cost of constructing haul roads and log landings.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.
- In some areas, the high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material from shallow excavations.

Septic tank absorption fields
- The limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of properly installing effluent distribution lines.
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

DtD3—Dulac-Tippah complex, 8 to 12 percent slopes, severely eroded

Map Unit Composition

Major components
Dulac and similar soils: 50 to 90 percent
Tippah and similar soils: 10 to 50 percent

Contrasting inclusions
Arundel soils: 0 to 5 percent
Luverne soils: 0 to 5 percent

Component Descriptions

Dulac
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; backslopes
Parent material: Loess over clayey marine deposits
Slope: 8 to 12 percent
Depth to restrictive feature: Greater than 60 inches to bedrock; 12 to 24 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.1 inches)
Shrink-swell potential: Moderate (About 4.1 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 8 to 12 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 3 inches; yellowish brown silt loam; moderately acid
Subsoil—3 to 15 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—15 to 30 inches; dark yellowish brown silt loam that has light brownish gray iron depletions; strongly acid
Subsoil—30 to 33 inches; dark yellowish brown and strong brown silty clay loam that has light brownish gray iron depletions; very strongly acid
Subsoil—33 to 64 inches; strong brown, grayish brown, light yellowish brown, dark yellowish brown, and light brownish gray clay; very strongly acid
Substratum—64 to 80 inches; strong brown, grayish brown, light yellowish brown, dark yellowish brown, and light brownish gray clay that has strong brown iron-manganese masses; very strongly acid

Tippah
Major land resource area: 133A—Southern Coastal Plain
Landform: Divides
Slope shape and hillslope position: Convex; shoulders and backslopes
Parent material: Loess over clayey marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 11.2 inches)
Shrink-swell potential: Moderate (About 4.7 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 12 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 3 inches; yellowish brown silt loam; moderately acid
Subsoil—3 to 21 inches; yellowish brown silty clay loam; strongly acid

Subsoil—21 to 34 inches; yellowish brown silty clay loam that has light brownish gray iron depletions; strongly acid
Subsoil—34 to 80 inches; yellowish brown clay that has red iron-manganese masses; very strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.
- The rooting depth is restricted by dense soil material and the high content of clay.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.
- In some areas, the high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material from shallow excavations.

Septic tank absorption fields
- The limited depth to bedrock reduces the filtering capacity of these soils and greatly increases the difficulty of properly installing effluent distribution lines.
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

Ea—Enville silt loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Major components
Enville and similar soils: 93 to 100 percent

Contrasting inclusions
Bibb soils: 0 to 7 percent

Component Description

Enville
Major land resource area: 133A—Southern Coastal Plain
Landform: Flood plains
Hillslope position: None
Parent material: Coarse-loamy alluvium over sandy alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: Occasional
Ponding: None
Depth to seasonal water saturation: About 12 to 18 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 5 inches; dark yellowish brown silt loam; moderately acid
Subsoil—5 to 9 inches; yellowish brown silt loam; strongly acid
Substratum—9 to 13 inches; light yellowish brown silt loam that has light brownish gray iron depletions; strongly acid
Substratum—13 to 20 inches; light brownish gray sandy loam that has yellowish brown masses of oxidized iron; strongly acid
Substratum—20 to 29 inches; light yellowish brown loamy sand that has brownish yellow masses of oxidized iron; strongly acid
Substratum—29 to 39 inches; gray sandy loam that has yellowish brown masses of oxidized iron; strongly acid
Substratum—39 to 45 inches; light gray sand; strongly acid
Substratum—45 to 80 inches; grayish brown gravelly loamy sand; strongly acid

Use and Management

Cropland
- This soil is prime farmland where it is either protected from flooding or not frequently flooded during the growing season.
- Careful selection and application of chemicals and fertilizers reduce the hazard of groundwater contamination.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soil from scouring and to minimize the amount of crop residue lost to flooding.

- Small-grain crops can be damaged by flooding in winter and spring.
- Installing a subsurface drainage system helps to lower the seasonal high water table.

Pastureland
- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland
- The seasonal high water table can reduce root respiration and thereby inhibit the growth of some species of seedlings.
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Soil wetness can limit the use of log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- Under normal weather conditions, this soil is subject to occasional flooding. The flooding can result in physical damage requiring costly repairs to buildings. Areas of this soil are therefore generally unsuitable as homesites. Some non-dwelling structures, such as farm outbuildings, may need special design to minimize the damage caused by flooding.
- Because of the high content of sand or gravel in the soil, the resistance to sloughing is reduced in shallow excavations and the excavation walls are unstable.

Septic tank absorption fields
- Areas of this soil are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of this soil.
- Special design is needed to prevent flood damage to roads and bridges.

Eb—Enville-Bibb complex, 0 to 2 percent slopes, frequently flooded

Map Unit Composition

Major components
Enville and similar soils: 50 to 90 percent
Bibb and similar soils: 10 to 50 percent

Component Descriptions

Enville

Major land resource area: 133A—Southern Coastal Plain
Landform: Flood plains
Hillslope position: None
Parent material: Coarse-loamy alluvium over sandy alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: Frequent
Ponding: None
Depth to seasonal water saturation: About 12 to 18 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 4w
Typical profile:
Surface layer—0 to 5 inches; dark yellowish brown silt loam; moderately acid
Subsoil—5 to 9 inches; yellowish brown silt loam; strongly acid
Substratum—9 to 13 inches; light yellowish brown silt loam that has light brownish gray iron depletions; strongly acid
Substratum—13 to 20 inches; light brownish gray sandy loam that has yellowish brown masses of oxidized iron; strongly acid
Substratum—20 to 29 inches; light yellowish brown loamy sand that has brownish yellow masses of oxidized iron; strongly acid
Substratum—29 to 39 inches; gray sandy loam that has yellowish brown masses of oxidized iron; strongly acid
Substratum—39 to 45 inches; light gray sand; strongly acid
Substratum—45 to 80 inches; grayish brown gravelly loamy sand; strongly acid

Bibb

Major land resource area: 133A—Southern Coastal Plain
Landform: Flood plains
Hillslope position: None
Parent material: Coarse-loamy alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: Frequent
Ponding: None
Depth to seasonal water saturation: About 0 to 12 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 5w
Typical profile:
Surface layer—0 to 3 inches; very dark gray silt loam; moderately acid
Substratum—3 to 8 inches; brown and grayish brown sandy loam and silt loam; moderately acid
Substratum—8 to 18 inches; gray sandy loam; strongly acid
Substratum—18 to 22 inches; gray silt loam; strongly acid

Substratum—22 to 50 inches; light brownish gray loamy sand and sandy loam; strongly acid
Substratum—50 to 80 inches; gray loam; strongly acid

Use and Management

Cropland
- Typically, crops are not grown on these soils because of the frequent flooding.
- Clods can form if these soils are tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soil from scouring and to minimize the amount of crop residue lost to flooding.

Pastureland
- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland
- Standing water can restrict root respiration and thereby inhibit the growth of some species of seedlings.
- The low strength of the soils increases the cost of constructing haul roads and log landings.
- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The frequent flooding greatly increases the risk of damage to buildings. Because of the flooding, these soils are generally unsuited to building site development.
- Because of the high content of sand or gravel in the soil, the resistance to sloughing is reduced in shallow excavations and the excavation walls are unstable.

Septic tank absorption fields
- Areas of these soils are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Special design is needed to prevent flood damage to roads and bridges.

FaB2—Falkner silt loam, 1 to 5 percent slopes, eroded

Map Unit Composition

Major components
Falkner and similar soils: 95 to 100 percent

Component Description

Falkner

Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; summits
Parent material: Loess over clayey marine deposits
Slope: 1 to 5 percent
Depth to restrictive feature: Greater than 60 inches to bedrock
Drainage class: Somewhat poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 11.2 inches)
Shrink-swell potential: Moderate (About 5.6 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 12 to 15 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 7 inches; brown silt loam; moderately acid
Subsoil—7 to 15 inches; light yellowish brown silt loam that has yellowish brown iron-manganese concretions; strongly acid
Subsoil—15 to 22 inches; pale brown silty clay loam that has yellowish brown iron-manganese masses; strongly acid
Subsoil—22 to 38 inches; gray silty clay that has strong brown iron-manganese masses; very strongly acid
Subsoil—38 to 77 inches; gray clay that has yellowish red iron-manganese masses; very strongly acid
Substratum—77 to 80 inches; claystone bedrock; very strongly acid

Use and Management

Cropland

- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- The rooting depth can be restricted by the high content of clay.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Installing a subsurface drainage system helps to lower the seasonal high water table.
- Including deep-rooted cover crops in the rotation improves soil structure, provides pathways in the clayey subsoil, and facilitates the movement of water into subsurface drains.

Pastureland

- Erosion-control measures are needed when pastures are renovated.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Soil wetness can limit the use of log trucks.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- Moderate shrinking and swelling of the soil can crack foundations and basement walls. The foundations and other structures may require some special design and construction or extra maintenance.
- In some areas, the high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material from shallow excavations.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of shrinking and swelling, this soil may not be suitable for use as base material for local roads and streets.
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

FeA—Feliciana silt loam, 0 to 2 percent slopes

Map Unit Composition

Major components
Feliciana and similar soils: 85 to 100 percent

Contrasting inclusions
Kurk soils: 0 to 6 percent
Loring soils: 0 to 9 percent

Component Description

Feliciana
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Linear; summits
Parent material: Loess
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.7 inches)
Shrink-swell potential: Low (About 2.5 percent linear extensibility)
Flooding: None
Ponding: None

Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Low
Land capability classification (nonirrigated): 1
Typical profile:
Surface layer—0 to 4 inches; brown silt loam; moderately acid
Surface layer—4 to 12 inches; brown silt loam; moderately acid
Subsoil—12 to 40 inches; strong brown silt loam; moderately acid
Subsoil—40 to 63 inches; brown silt loam that has black manganese masses; moderately acid
Subsoil—63 to 72 inches; reddish brown silt loam that has black manganese masses; strongly acid

Use and Management

Cropland
- All areas of this soil are prime farmland.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Soil slippage can affect fencing patterns, increase the cost of maintaining fences and buried water pipelines, and cause uneven slopes, which can affect equipment use and the grazing patterns of animals. Removing excess water can help to prevent the slippage.

Forestland
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

FeB2—Feliciana silt loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components
Feliciana and similar soils: 91 to 100 percent

Contrasting inclusions
Loring soils: 0 to 9 percent

Component Description

Feliciana
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Linear; summits
Parent material: Loess
Slope: 2 to 5 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.7 inches)
Shrink-swell potential: Low (About 2.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Low
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 7 inches; brown silt loam; moderately acid
Subsoil—7 to 24 inches; dark yellowish brown silty clay loam; moderately acid
Subsoil—24 to 52 inches; brown silt loam; moderately acid
Subsoil—52 to 80 inches; reddish brown silt loam; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Erosion-control measures are needed when pastures are renovated.
- Soil slippage can affect fencing patterns, increase the cost of maintaining fences and buried water pipelines, and cause uneven slopes, which can affect equipment use and the grazing patterns of animals. Removing excess water can help to prevent the slippage.

Forestland
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of

constructing haul roads and log landings and can create unsafe conditions for log trucks.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

GrA—Grenada silt loam, 0 to 2 percent slopes

Map Unit Composition

Major components
Grenada and similar soils: 85 to 100 percent

Contrasting inclusions
Kurk soils: 0 to 6 percent
Calloway soils: 0 to 9 percent
Routon soils: 0 to 5 percent

Component Description

Grenada
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; summits
Parent material: Loess
Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 36 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 10.1 inches)
Shrink-swell potential: Low (About 2.4 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 14 to 28 inches (perched)
Runoff class: Low
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 7 inches; brown silt loam that has gray iron depletions; moderately acid
Subsoil—7 to 9 inches; brown silt loam; moderately acid
Subsoil—9 to 18 inches; yellowish brown silt loam that has pale brown iron depletions; moderately acid
Subsurface layer—18 to 32 inches; light yellowish brown silt loam that has strong brown masses of oxidized iron; strongly acid

Subsoil—18 to 32 inches; strong brown silty clay loam that has strong brown masses of oxidized iron; strongly acid
Subsoil—32 to 48 inches; strong brown silty clay loam that has gray iron depletions; strongly acid
Subsoil—48 to 80 inches; brown silt loam; strongly acid

Use and Management

Cropland
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled fire can result in a loss of soil productivity.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

GrB2—Grenada silt loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components
Grenada and similar soils: 95 to 100 percent

Contrasting inclusions
Calloway soils: 0 to 5 percent

Component Description

Grenada
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; summits
Parent material: Loess
Slope: 2 to 5 percent

Depth to restrictive feature: 20 to 36 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 10.1 inches)
Shrink-swell potential: Low (About 2.4 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 14 to 28 inches (perched)
Runoff class: Low
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 6 inches; brown silt loam; moderately acid
Subsoil—6 to 18 inches; yellowish brown silt loam; moderately acid
Subsurface layer—18 to 32 inches; light yellowish brown silt loam and silty clay loam; strongly acid
Subsoil—32 to 80 inches; strong brown silty clay loam; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Erosion-control measures are needed when pastures are renovated.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

HgF—Hapludults-Gullied land complex, very steep

Map Unit Composition

Major components
Hapludults and similar soils: 50 to 75 percent
Gullied land and similar areas: 25 to 50 percent

Hapludults-Gullied land, very steep, formed due to severe erosion in areas that were formerly cropland.The two components occur as areas so intricately mixed that mapping them separately is not practical at the scale used. It is mapped as a unit primarily because it presents a limitation to travel across the landscape.

Component Descriptions

Udorthents
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills, divides
Slope shape and hillslope position: Linear; summits and side slopes
Parent material: Human reworked soil material
Slope: 0 to 75 percent
Restrictive feature: None
Drainage class: Well drained and moderately well drained
Land capability classification (nonirrigated): Hapludults 7e; Gullied land 8e

Hapludults consist of remnants of previous soils that are eroded beyond a point where classification to the series level is possible. Hapludults are in deeply gullied areas where severely eroded islands of the previous soil material remain partially intact between large gullies or in areas where the sidewalls of gullies collapsed and the soil horizons are disturbed or out of order.

Gullied land
Gullied land is a miscellaneous land type consisting of areas where erosion has cut a complex network of U-shaped or V-shaped channels into the landscape. Unlike Hapludults, the Gullied land does not include soil material and commonly is 20 feet or more in depth and 50 feet or more in width.

HtE—Hawthorne gravelly silt loam, 12 to 25 percent slopes

Map Unit Composition

Major components
Hawthorne and similar soils: 90 to 100 percent

Component Description

Hawthorne
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Convex; backslopes, shoulders, and nose slopes
Parent material: Residuum weathered from siltstone and/or residuum weathered from chert
Slope: 12 to 25 percent
Depth to restrictive feature: 24 to 40 inches to paralithic bedrock
Drainage class: Somewhat excessively drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 3.1 inches)
Shrink-swell potential: Low (About 1.2 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6s
Typical profile:
Surface layer—0 to 4 inches; dark brown gravelly silt loam; strongly acid
Subsurface layer—4 to 11 inches; yellowish brown gravelly silt loam; strongly acid
Subsoil—11 to 36 inches; strong brown very gravelly silt loam; very strongly acid
Substratum—36 to 80 inches; chert bedrock

Use and Management

Cropland
- This soil is generally not suited to cropland.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- Soil slippage can affect fencing patterns, increase the cost of maintaining fences and buried water pipelines, and cause uneven slopes, which can affect equipment use and the grazing patterns of animals. Removing excess water can help to prevent the slippage.

Forestland
- Because of the slope, the hazard of erosion is increased if the soil is disturbed.
- The slope increases excavation costs, increases the hazard of erosion during construction of haul roads and log landings, restricts the use of equipment during site preparation for planting and seeding, creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The low strength of the soil can cause the formation of ruts, which can result in unsafe conditions and damage to equipment.
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- Sandy layers in this soil increase the need for maintenance of haul roads and log landings and may slough, thereby reducing the efficiency of mechanical planting equipment.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of rock fragments, the use of mechanical planting equipment is not practical.
- Stones restrict the use of equipment during site preparation for planting or seeding.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of the slope, local roads and streets are difficult to design.

HTF—Hawthorne, Sengtown, and Sugargrove soils, 25 to 70 percent slopes

Map Unit Composition

Major components
Hawthorne and similar soils: 0 to 100 percent
Sengtown and similar soils: 0 to 100 percent
Sugargrove and similar soils: 0 to 100 percent

Component Descriptions

Hawthorne
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Residuum weathered from siltstone and/or residuum weathered from chert
Slope: 25 to 70 percent
Depth to restrictive feature: 24 to 40 inches to paralithic bedrock (fig. 5)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 3.1 inches)
Shrink-swell potential: Low (About 1.2 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 7s
Typical profile:
Surface layer—0 to 4 inches; dark brown gravelly silt loam; strongly acid
Subsurface layer—4 to 11 inches; yellowish brown gravelly silt loam; strongly acid
Subsoil—11 to 25 inches; strong brown very gravelly silt loam; very strongly acid
Substratum—25 to 80 inches; chert bedrock

Sengtown
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Clayey residuum
Slope: 25 to 70 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.2 inches)
Shrink-swell potential: Low (About 2.9 percent linear extensibility)

Figure 5.—A high content of gravel and shallow rooting depth combine to create a significant hazard of windthrow in areas of Hawthorne soils.

Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 7e
Typical profile:
Surface layer—0 to 1 inch; dark yellowish brown gravelly silt loam; strongly acid
Subsoil—1 to 5 inches; strong brown gravelly silt loam; strongly acid
Subsoil—5 to 12 inches; yellowish red gravelly silty clay loam; strongly acid
Subsoil—12 to 20 inches; yellowish red very gravelly silty clay loam; strongly acid
Subsoil—20 to 36 inches; red gravelly clay; very strongly acid
Subsoil—36 to 63 inches; red gravelly clay; very strongly acid
Subsoil—63 to 80 inches; red very gravelly clay; very strongly acid

Sugargrove
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Loamy residuum
Slope: 25 to 70 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 4.8 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None

Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 7e
Typical profile:
Surface layer—0 to 2 inches; brown gravelly silt loam; strongly acid
Subsurface layer—2 to 6 inches; pale brown gravelly silt loam; strongly acid
Subsoil—6 to 11 inches; light yellowish brown gravelly silt loam; strongly acid
Subsoil—11 to 18 inches; yellowish brown gravelly silt loam; strongly acid
Subsoil—18 to 28 inches; strong brown gravelly silty clay loam; very strongly acid
Substratum—28 to 80 inches; bedrock

Use and Management

Cropland
- These soils are generally not suited to cropland.
- Generally, cultivation is impractical in areas of this map unit because of the slope and the hazard of erosion.

Pastureland
- These soils are generally not recommended for pasture.
- Generally, pasture establishment is impractical in areas of this map unit because of the steep slopes.

Forestland
- Because of the slope, the hazard of erosion is increased if the soils are disturbed.
- The slope increases excavation costs, increases the hazard of erosion during construction of haul roads and log landings, creates unsafe operating conditions, and reduces the operating efficiency of log trucks and harvesting and mechanical planting equipment.
- Because of the slope and the rock fragments, the use of mechanical planting equipment is not practical and the use of equipment to prepare the site for planting and seeding is not practical.
- The low strength of the soils can cause the formation of ruts, which can result in unsafe conditions and damage to equipment.
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- Sandy layers in these soils increase the need for maintenance of haul roads and log landings and may slough, thereby reducing the efficiency of mechanical planting equipment.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of the slope, local roads and streets are difficult to design.

HuB—Humphreys gravelly silt loam, 2 to 5 percent slopes

Map Unit Composition

Major components
Humphreys and similar soils: 92 to 100 percent

Contrasting inclusions
Tarklin soils: 0 to 8 percent

Component Description

Humphreys
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Alluvial fans
Slope shape and hillslope position: Linear; footslopes
Parent material: Loamy alluvium
Slope: 2 to 5 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Very low
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 6 inches; dark brown gravelly silt loam; moderately acid
Subsoil—6 to 14 inches; dark yellowish brown gravelly silt loam; strongly acid
Subsoil—14 to 27 inches; strong brown gravelly silt loam; strongly acid
Subsoil—27 to 50 inches; strong brown gravelly silt loam; strongly acid
Subsoil—50 to 57 inches; strong brown very gravelly silt loam; strongly acid
Subsoil—57 to 60 inches; strong brown extremely gravelly loam; strongly acid

Use and Management

Cropland
- All areas of this soil are prime farmland.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of erosion.
- Clods can form if this soil is tilled when wet.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings and can cause the formation of ruts, which can result in unsafe conditions and damage to equipment.

- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Rock fragments restrict the use of mechanical planting equipment.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- Areas of this soil are well suited as sites for septic tank absorption fields.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.

HuC—Humphreys gravelly silt loam, 5 to 12 percent slopes

Map Unit Composition

Major components
Humphreys and similar soils: 91 to 100 percent

Contrasting inclusions
Tarklin soils: 0 to 9 percent

Component Description

Humphreys
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Alluvial fans
Slope shape and hillslope position: Convex; footslopes
Parent material: Loamy alluvium
Slope: 5 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Low
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 6 inches; dark brown gravelly silt loam; moderately acid
Subsoil—6 to 14 inches; dark yellowish brown gravelly silt loam; strongly acid
Subsoil—14 to 27 inches; strong brown gravelly silt loam; strongly acid
Subsoil—27 to 50 inches; strong brown gravelly silt loam; strongly acid
Subsoil—50 to 57 inches; strong brown very gravelly silt loam; strongly acid
Subsoil—57 to 60 inches; strong brown extremely gravelly loam; strongly acid

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of erosion.

- Clods can form if this soil is tilled when wet.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings and can cause the formation of ruts, which can result in unsafe conditions and damage to equipment.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of mechanical planting equipment.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

Ik—Iuka loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Major components
Iuka and similar soils: 85 to 100 percent

Contrasting inclusions
Enville soils: 0 to 9 percent
Chenneby soils: 0 to 9 percent

Component Description

Iuka
Major land resource area: 133A—Southern Coastal Plain
Landform: Flood plains
Hillslope position: None
Parent material: Coarse-loamy alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Moderately well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.1 inches)

Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: Occasional
Ponding: None
Depth to seasonal water saturation: About 25 to 35 inches (apparent)
Runoff class: Low
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 5 inches; brown loam that has light brownish gray iron depletions; moderately acid
Substratum—5 to 11 inches; brown silt loam that has strong brown iron-manganese masses; strongly acid
Substratum—11 to 22 inches; pale brown silt loam that has strong brown iron-manganese masses; strongly acid
Substratum—22 to 30 inches; light brown stratified loamy sand; strongly acid
Substratum—30 to 45 inches; light brownish gray sandy loam that has yellowish brown iron-manganese masses; very strongly acid
Substratum—45 to 62 inches; gray loam that has gray iron depletions; very strongly acid
Substratum—62 to 87 inches; light gray loam that has olive yellow masses of oxidized iron; very strongly acid

Use and Management

Cropland
- All areas of this soil are prime farmland.
- Clods can form if this soil is tilled when wet.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soil from scouring and to minimize the amount of crop residue lost to flooding.
- Small-grain crops can be damaged by flooding in winter and spring.

Pastureland
- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.

Forestland
- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- Under normal weather conditions, this soil is subject to occasional flooding. The flooding can result in physical damage requiring costly repairs to buildings. Areas of this soil are therefore generally unsuitable as homesites. Some non-dwelling structures, such as farm outbuildings, may need special design to minimize the damage caused by flooding.

Septic tank absorption fields

- Areas of this soil are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets

- Special design is needed to prevent flood damage to roads and bridges.

KrA—Kurk silt loam, 0 to 3 percent slopes

Map Unit Composition

Major components
Kurk and similar soils: 91 to 100 percent

Contrasting inclusions
Routon soils: 0 to 9 percent

Component Description

Kurk
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Terraces
Slope shape and hillslope position: Concave; footslopes and summits
Parent material: Loess over loamy fluviomarine deposits
Slope: 0 to 3 percent
Restrictive feature: None
Drainage class: Somewhat poorly drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.4 inches)
Shrink-swell potential: Low (About 2.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 8 to 18 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 7 inches; brown silt loam that has light brownish gray iron depletions; moderately acid
Subsoil—7 to 12 inches; light yellowish brown silt loam that has light brownish gray iron depletions; moderately acid
Subsurface layer—12 to 21 inches; light gray silt; strongly acid
Subsoil—21 to 45 inches; gray silty clay loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—45 to 56 inches; light brownish gray silt loam that has yellowish brown masses of oxidized iron; very strongly acid
Subsoil—56 to 66 inches; light yellowish brown silt loam that has light gray iron depletions; strongly acid
Subsoil—66 to 80 inches; brown loam that has yellowish red masses of oxidized iron; strongly acid

Use and Management

Cropland

- All areas of this soil are prime farmland.
- Clods can form if this soil is tilled when wet.

- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Installing a subsurface drainage system helps to lower the seasonal high water table.

Pastureland
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Soil wetness can limit the use of log trucks.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This map unit is poorly suited to building site development. Special design may be needed to prevent the wetness from causing damage to structures. Because of the seasonal high water table, the period when excavations can be made may be restricted, a higher degree of construction site development may be required, and extra building maintenance may be necessary.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

LaB2—Lax silt loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components
Lax and similar soils: 95 to 100 percent

Component Description

Lax
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Linear; summits
Parent material: Loess over gravelly alluvium and/or gravelly residuum
Slope: 2 to 5 percent
Depth to restrictive feature: 22 to 30 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Very low (About 2.0 inches)

Shrink-swell potential: Low (About 2.4 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 8 to 22 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 2 inches; brown silt loam; strongly acid
Subsurface layer—2 to 8 inches; pale brown silt loam; strongly acid
Subsoil—8 to 18 inches; yellowish red silty clay loam; strongly acid
Subsoil—18 to 26 inches; strong brown silty clay loam that has light brownish gray iron depletions; very strongly acid
Subsoil—26 to 36 inches; strong brown gravelly silt loam that has light brownish gray iron depletions; very strongly acid
Subsoil—36 to 80 inches; strong brown very gravelly silt loam that has light brownish gray iron depletions; very strongly acid

Use and Management

Cropland
- All areas of this soil are prime farmland.
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil layer.

Pastureland
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength of the soil can also create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

LaC2—Lax silt loam, 5 to 12 percent slopes, eroded

Map Unit Composition

Major components
Lax and similar soils: 91 to 100 percent

Contrasting inclusions
Saffell soils: 0 to 9 percent

Component Description

Lax
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Linear; summits
Parent material: Loess over gravelly alluvium and/or gravelly residuum
Slope: 5 to 12 percent
Depth to restrictive feature: 22 to 30 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Very low (About 2.0 inches)
Shrink-swell potential: Low (About 2.4 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 8 to 22 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 2 inches; brown silt loam; strongly acid
Subsurface layer—2 to 8 inches; pale brown silt loam; strongly acid
Subsoil—8 to 18 inches; yellowish red silty clay loam; strongly acid
Subsoil—18 to 26 inches; strong brown silty clay loam that has light brownish gray iron depletions; very strongly acid
Subsoil—26 to 36 inches; strong brown gravelly silt loam that has light brownish gray iron depletions; very strongly acid
Subsoil—36 to 80 inches; strong brown very gravelly silt loam that has light brownish gray iron depletions; very strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.

- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil layer.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength of the soil can also create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

LbC3—Lax silty clay loam, 5 to 12 percent slopes, severely eroded

Map Unit Composition

Major components
Lax and similar soils: 91 to 100 percent

Contrasting inclusions
Saffell soils: 0 to 9 percent

Component Description

Lax
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Linear; summits
Parent material: Loess over gravelly alluvium and/or gravelly residuum
Slope: 5 to 12 percent
Depth to restrictive feature: 14 to 18 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Very low (About 1.6 inches)
Shrink-swell potential: Low (About 1.8 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 5 to 14 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 5 inches; brown silty clay loam; strongly acid
Subsoil—5 to 16 inches; yellowish red silty clay loam; strongly acid
Subsoil—16 to 25 inches; strong brown silt loam that has light brownish gray iron depletions; very strongly acid
Subsoil—25 to 36 inches; strong brown gravelly silt loam that has light brownish gray iron depletions; very strongly acid
Subsoil—36 to 80 inches; strong brown very gravelly silt loam that has light brownish gray iron depletions; very strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil layer.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

LeA—Lexington silt loam, 0 to 2 percent slopes

Map Unit Composition

Major components
Lexington and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Lexington
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Linear; summits
Parent material: Loess over marine deposits
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: Low (About 2.6 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Low
Land capability classification (nonirrigated): 1

Typical profile:

Surface layer—0 to 9 inches; dark yellowish brown silt loam; slightly acid
Subsoil—9 to 24 inches; strong brown silty clay loam; moderately acid
Subsoil—24 to 37 inches; strong brown silt loam; moderately acid
Subsoil—37 to 47 inches; dark yellowish brown silt loam; strongly acid
Subsoil—47 to 55 inches; strong brown loam; strongly acid
Subsoil—55 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- All areas of this soil are prime farmland.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- This soil is well suited to pasture.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled fire can result in a loss of soil productivity.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

LeB2—Lexington silt loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components
Lexington and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Lexington
Major land resource area: 134—Southern Mississippi Valley Loess

Landform: Divides
Slope shape and hillslope position: Linear; summits
Parent material: Loess over marine deposits
Slope: 2 to 5 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: Low (About 2.6 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Low
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 6 inches; dark yellowish brown silt loam; slightly acid
Subsoil—6 to 18 inches; strong brown silty clay loam; moderately acid
Subsoil—18 to 29 inches; strong brown silt loam; moderately acid
Subsoil—29 to 35 inches; dark yellowish brown silt loam; strongly acid
Subsoil—35 to 47 inches; strong brown loam; strongly acid
Subsoil—47 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- All areas of this soil are prime farmland.
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

LeC2—Lexington silt loam, 5 to 8 percent slopes, eroded

Map Unit Composition

Major components
Lexington and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Lexington
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Convex; summits
Parent material: Loess over marine deposits
Slope: 5 to 8 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: Low (About 2.6 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 6 inches; dark yellowish brown silt loam; slightly acid
Subsoil—6 to 18 inches; strong brown silty clay loam; moderately acid
Subsoil—18 to 29 inches; strong brown silt loam; moderately acid
Subsoil—29 to 35 inches; dark yellowish brown silt loam; strongly acid
Subsoil—35 to 47 inches; strong brown loam; strongly acid
Subsoil—47 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

LeD2—Lexington silt loam, 8 to 12 percent slopes, eroded

Map Unit Composition

Major components
Lexington and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Lexington
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Convex; backslopes
Parent material: Loess over marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: Low (About 2.6 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet

Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 6 inches; dark yellowish brown silt loam; slightly acid
Subsoil—6 to 18 inches; strong brown silty clay loam; moderately acid
Subsoil—18 to 29 inches; strong brown silt loam; moderately acid
Subsoil—29 to 35 inches; dark yellowish brown silt loam; strongly acid
Subsoil—35 to 47 inches; strong brown loam; strongly acid
Subsoil—47 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland

- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage (fig. 6).
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland

- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.

Figure 6.—A sediment basin in an area of Lexington silt loam, 8 to 12 percent slopes, eroded. Such basins help to control erosion by slowing water movement and help to prevent gully formation.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soil is disturbed.
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

LnB3—Lexington silty clay loam, 2 to 5 percent slopes, severely eroded

Map Unit Composition

Major components
Lexington and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Lexington
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Convex; summits
Parent material: Loess over marine deposits
Slope: 2 to 5 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.3 inches)
Shrink-swell potential: Low (About 2.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet

Runoff class: Low
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 6 inches; brown silty clay loam; slightly acid
Subsoil—6 to 18 inches; strong brown silty clay loam; moderately acid
Subsoil—18 to 29 inches; strong brown silt loam; moderately acid
Subsoil—29 to 35 inches; dark yellowish brown silt loam; strongly acid
Subsoil—35 to 47 inches; strong brown loam; strongly acid
Subsoil—47 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

LnC3—Lexington silty clay loam, 5 to 8 percent slopes, severely eroded

Map Unit Composition

Major components
Lexington and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Lexington
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Convex; summits
Parent material: Loess over marine deposits
Slope: 5 to 8 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.3 inches)
Shrink-swell potential: Low (About 2.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 6 inches; brown silty clay loam; slightly acid
Subsoil—6 to 18 inches; strong brown silty clay loam; moderately acid
Subsoil—18 to 29 inches; strong brown silt loam; moderately acid
Subsoil—29 to 35 inches; dark yellowish brown silt loam; strongly acid
Subsoil—35 to 47 inches; strong brown loam; strongly acid
Subsoil—47 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.

- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

LnD3—Lexington silty clay loam, 8 to 12 percent slopes, severely eroded

Map Unit Composition

Major components
Lexington and similar soils: 91 to 100 percent

Contrasting inclusions
Providence soils: 0 to 9 percent

Component Description

Lexington
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Convex; backslopes
Parent material: Loess over marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.3 inches)
Shrink-swell potential: Low (About 2.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 6 inches; brown silty clay loam; slightly acid
Subsoil—6 to 18 inches; strong brown silty clay loam; moderately acid
Subsoil—18 to 29 inches; strong brown silt loam; moderately acid
Subsoil—29 to 35 inches; dark yellowish brown silt loam; strongly acid
Subsoil—35 to 47 inches; strong brown loam; strongly acid

Subsoil—47 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- This soil is generally not suited to cropland.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soil is disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

Lo—Lobelville silt loam, 0 to 3 percent slopes, occasionally flooded

Map Unit Composition

Major components
Lobelville and similar soils: 91 to 100 percent

Contrasting inclusions
Rosebloom soils: 0 to 9 percent

Component Description

Lobelville

Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Flood plains
Hillslope position: None
Parent material: Gravelly alluvium
Slope: 0 to 3 percent
Restrictive feature: None
Drainage class: Moderately well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 5.6 inches)
Shrink-swell potential: Low (About 1.3 percent linear extensibility)
Flooding: Occasional
Ponding: None
Depth to seasonal water saturation: About 10 to 24 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 2w
Typical profile:

Surface layer—0 to 6 inches; brown silt loam that has pale brown iron depletions; slightly acid

Subsoil—6 to 14 inches; yellowish brown gravelly silt loam that has strong brown masses of oxidized iron; slightly acid

Subsoil—14 to 23 inches; dark yellowish brown gravelly loam that has strong brown masses of oxidized iron; moderately acid

Subsoil—23 to 34 inches; dark yellowish brown gravelly loam that has very dark gray iron-manganese concretions; strongly acid

Subsoil—34 to 48 inches; grayish brown gravelly silt loam that has very dark gray iron-manganese concretions; strongly acid

Substratum—48 to 59 inches; grayish brown very gravelly silt loam that has dark yellowish brown masses of oxidized iron; strongly acid

Substratum—59 to 80 inches; yellowish brown very gravelly loam that has light brownish gray iron depletions; strongly acid

Use and Management

Cropland

- All areas of this soil are prime farmland.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soil from scouring and to minimize the amount of crop residue lost to flooding.
- Small-grain crops can be damaged by flooding in winter and spring.

Pastureland

- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.

- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Rock fragments restrict the use of mechanical planting equipment.

Building sites
- Under normal weather conditions, this soil is subject to occasional flooding. The flooding can result in physical damage requiring costly repairs to buildings. Areas of this soil are therefore generally unsuitable as homesites. Some non-dwelling structures, such as farm outbuildings, may need special design to minimize the damage caused by flooding.

Septic tank absorption fields
- Areas of this soil are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Special design is needed to prevent flood damage to roads and bridges.

LrA—Loring silt loam, 0 to 2 percent slopes

Map Unit Composition

Major components
Loring and similar soils: 82 to 100 percent

Contrasting inclusions
Kurk soils: 0 to 9 percent
Calloway soils: 0 to 9 percent

Component Description

Loring
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; summits
Parent material: Loess over loamy marine deposits
Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 32 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 11.6 inches)
Shrink-swell potential: Low (About 2.5 percent linear extensibility)

Flooding: None
Ponding: None
Depth to seasonal water saturation: About 19 to 25 inches (apparent)
Runoff class: Low
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 11 inches; dark yellowish brown silt loam; moderately acid
Subsoil—11 to 16 inches; yellowish brown silt loam; moderately acid
Subsoil—16 to 26 inches; yellowish brown silt loam; moderately acid
Subsoil—26 to 37 inches; yellowish brown silt loam; strongly acid
Subsoil—37 to 49 inches; pale brown silt loam; strongly acid
Subsoil—49 to 80 inches; pale brown loam; strongly acid

Use and Management

Cropland
- All areas of this soil are prime farmland.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

LrB2—Loring silt loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components
Loring and similar soils: 91 to 100 percent

Contrasting inclusions
Calloway soils: 0 to 9 percent

Component Description

Loring
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; summits
Parent material: Loess over loamy marine deposits
Slope: 2 to 5 percent
Depth to restrictive feature: 20 to 32 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 12.0 inches)
Shrink-swell potential: Low (About 2.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 19 to 25 inches (apparent)
Runoff class: Low
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 8 inches; brown silt loam; moderately acid
Subsoil—8 to 16 inches; strong brown silt loam; moderately acid
Subsoil—16 to 23 inches; dark yellowish brown silt loam; moderately acid
Subsoil—23 to 27 inches; yellowish brown silt loam; moderately acid
Subsoil—27 to 52 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—52 to 58 inches; strong brown silt loam; strongly acid
Subsoil—58 to 72 inches; strong brown loam; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

LrC2—Loring silt loam, 5 to 8 percent slopes, eroded

Map Unit Composition

Major components
Loring and similar soils: 90 to 100 percent

Component Description

Loring
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; summits
Parent material: Loess over loamy marine deposits
Slope: 5 to 8 percent
Depth to restrictive feature: 20 to 32 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 12.0 inches)
Shrink-swell potential: Low (About 2.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 19 to 25 inches (apparent)
Runoff class: Medium
Land capability classification (nonirrigated): 3e

Typical profile:

Surface layer—0 to 8 inches; brown silt loam; moderately acid
Subsoil—8 to 16 inches; strong brown silt loam; moderately acid
Subsoil—16 to 23 inches; dark yellowish brown silt loam; moderately acid
Subsoil—23 to 27 inches; yellowish brown silt loam; moderately acid
Subsoil—27 to 52 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—52 to 58 inches; strong brown silt loam; strongly acid
Subsoil—58 to 72 inches; strong brown loam; strongly acid

Use and Management

Cropland

- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland

- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland

- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites

- This soil is well suited to building site development.

Septic tank absorption fields

- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

LuE2—Luverne fine sandy loam, 12 to 25 percent slopes, eroded

Map Unit Composition

Major components
Luverne and similar soils: 90 to 100 percent

Component Description

Luverne
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Clayey marine deposits
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 8.7 inches)
Shrink-swell potential: Moderate (About 4.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 1 inch; dark yellowish brown fine sandy loam; moderately acid
Surface layer—1 to 4 inches; brown fine sandy loam; strongly acid
Subsoil—4 to 12 inches; yellowish brown fine sandy loam; strongly acid
Subsoil—12 to 21 inches; yellowish red clay; strongly acid
Subsoil—21 to 37 inches; yellowish red clay; very strongly acid
Subsoil—37 to 71 inches; red, strong brown, yellowish red, and light gray clay loam; very strongly acid
Substratum—71 to 80 inches; light gray loam that has reddish yellow masses of oxidized iron; very strongly acid

Use and Management

Cropland
- This soil is generally not suited to cropland.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Soil slippage can affect fencing patterns, increase the cost of maintaining fences and buried water pipelines, and cause uneven slopes, which can affect equipment use

and the grazing patterns of animals. Removing excess water can help to prevent the slippage.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soil is disturbed.
- The slope increases excavation costs, increases the hazard of further erosion during construction of haul roads and log landings, creates unsafe operating conditions, reduces the operating efficiency of log trucks, can restrict the use of some mechanical planting equipment, and restricts the use of equipment during site preparation for planting and seeding.
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings, reduces the efficiency of mechanical planting equipment, and restricts the use of equipment for site preparation to the drier periods.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.
- In some areas, the high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material from shallow excavations.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of shrinking and swelling, this soil may not be suitable for use as base material for local roads and streets.
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

Ng—Nugent loamy sand, 0 to 3 percent slopes, occasionally flooded

Map Unit Composition

Major components
Nugent and similar soils: 100 percent

Component Description

Nugent
Major land resource area: 133A—Southern Coastal Plain
Landform: Flood plains, alluvial fans

Hillslope position: None
Parent material: Sandy alluvium over loamy alluvium
Slope: 0 to 3 percent
Restrictive feature: None
Drainage class: Excessively drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 5.9 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: Occasional
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Very low
Land capability classification (nonirrigated): 3s
Typical profile:
Surface layer—0 to 8 inches; dark yellowish brown loamy sand; strongly acid
Substratum—8 to 19 inches; yellowish brown fine sand; strongly acid
Substratum—19 to 30 inches; dark yellowish brown loamy sand; strongly acid
Substratum—30 to 35 inches; yellowish brown sand; strongly acid
Substratum—35 to 42 inches; dark yellowish brown loam; strongly acid
Substratum—42 to 60 inches; yellowish brown silt loam; strongly acid

Use and Management

Cropland
- Maintaining vegetative cover and establishing windbreaks reduce the hazard of wind erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Careful selection and application of chemicals and fertilizers reduce the hazard of groundwater contamination.
- Clods can form if this soil is tilled when wet.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soil from scouring and to minimize the amount of crop residue lost to flooding.
- Small-grain crops can be damaged by flooding in winter and spring.
- Plant nutrients are leached at an accelerated rate because of the sandy layer.

Pastureland
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.

Forestland
- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled fire can result in a loss of soil productivity.

Building sites
- Under normal weather conditions, this soil is subject to occasional flooding. The flooding can result in physical damage requiring costly repairs to buildings. Areas of this soil are therefore generally unsuitable as homesites. Some non-dwelling structures, such as farm outbuildings, may need special design to minimize the damage caused by flooding.
- Because of the high content of sand or gravel in the soil, the resistance to sloughing is reduced in shallow excavations and the excavation walls are unstable.

Septic tank absorption fields
- Areas of this soil are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Special design is needed to prevent flood damage to roads and bridges.

Ok—Ochlockonee fine sandy loam, 0 to 3 percent slopes, rarely flooded

Map Unit Composition

Major components
Ochlockonee and similar soils: 95 to 100 percent

Component Description

Ochlockonee
Major land resource area: 133A—Southern Coastal Plain,122—Highland Rim and Pennyroyal
Landform: Flood plains
Hillslope position: None
Parent material: Coarse-loamy alluvium
Slope: 0 to 3 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.57 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: Rare
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Low
Land capability classification (nonirrigated): 1
Typical profile:
Surface layer—0 to 8 inches; brown fine sandy loam; moderately acid
Substratum—8 to 23 inches; dark yellowish brown fine sandy loam; strongly acid
Substratum—23 to 47 inches; yellowish brown sandy loam that has brown iron depletions; strongly acid
Substratum—47 to 58 inches; dark yellowish brown fine sandy loam that has grayish brown iron depletions; strongly acid
Substratum—58 to 80 inches; brown loam that has light brownish gray iron depletions; very strongly acid

Use and Management

Cropland
- All areas of this soil are prime farmland.
- Maintaining vegetative cover and establishing windbreaks reduce the hazard of wind erosion.
- Careful selection and application of chemicals and fertilizers reduce the hazard of groundwater contamination.
- Clods can form if this soil is tilled when wet.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- Under unusual weather conditions, this soil is subject to rare flooding. The flooding can result in physical damage requiring costly repairs to buildings. Areas of this soil are therefore generally unsuitable as homesites. Some non-dwelling structures, such as farm outbuildings, may need special design to minimize the damage caused by flooding.

Septic tank absorption fields
- Areas of this soil are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Areas of this soil are well suited as sites for local roads and streets.
- Special design is needed to prevent flood damage to roads and bridges.

PaB2—Paden silt loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components
Paden and similar soils: 95 to 100 percent

Component Description

Paden
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Terraces
Slope shape and hillslope position: Linear; footslopes
Parent material: Silty alluvium
Slope: 2 to 5 percent
Depth to restrictive feature: 16 to 24 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Moderate (About 6.1 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 12 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 2e
Typical profile:
Surface layer—0 to 7 inches; dark yellowish brown silt loam; moderately acid
Subsoil—7 to 18 inches; yellowish brown silt loam; strongly acid
Subsoil—18 to 30 inches; strong brown silt loam that has grayish brown clay depletions; strongly acid
Subsurface layer—18 to 30 inches; pale brown silt loam; strongly acid
Subsoil—30 to 51 inches; yellowish brown silt loam that has strong brown masses of oxidized iron; strongly acid
Subsoil—51 to 80 inches; yellowish brown silt loam that has strong brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- All areas of this soil are prime farmland.
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

PaC2—Paden silt loam, 5 to 12 percent slopes, eroded

Map Unit Composition

Major components
Paden and similar soils: 95 to 100 percent

Component Description

Paden
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Terraces
Slope shape and hillslope position: Linear; footslopes
Parent material: Silty alluvium
Slope: 5 to 12 percent
Depth to restrictive feature: 16 to 24 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 6.1 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 12 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 7 inches; dark yellowish brown silt loam; moderately acid
Subsoil—7 to 18 inches; yellowish brown silt loam; strongly acid
Subsoil—18 to 30 inches; strong brown silt loam that has grayish brown clay depletions; strongly acid
Subsurface layer—18 to 30 inches; pale brown silt loam; strongly acid
Subsoil—30 to 51 inches; yellowish brown silt loam that has strong brown masses of oxidized iron; strongly acid
Subsoil—51 to 80 inches; yellowish brown silt loam that has strong brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.

- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

Pc—Pits, clay

Map Unit Composition

Major components
Pits: 85 to 100 percent

Contrasting inclusions
Spoil areas: 0 to 15 percent

Component Description

Major land resource area: 133A—Southern Coastal Plain

Landform: Hills, divides
Slope shape and hillslope position: Linear; summits and backslopes
Slope: 0 to 30 percent
Restrictive feature: None
Drainage class: Well drained and moderately well drained
Land capability classification (nonirrigated): 8

This map unit consists of small to large areas that are actively mined for clay or that were recently used for that purpose and have not been reclaimed. These areas are commonly open pits or open excavations from which the overlying soil material (silty loess and sandy Coastal Plain sediments) was removed, exposing deposits of clay and claystone material. These pits typically have vertical to nearly vertical walls that are 20 to more than 40 feet high.

Pg—Pits, gravel or sand

Map Unit Composition

Major components
Pits: 85 to 100 percent

Contrasting inclusions
Spoil areas: 0 to 15 percent

Component Description

Major land resource area: 133A—Southern Coastal Plain
Landform: Hills, divides
Slope shape and hillslope position: Linear; summits and backslopes
Slope: 0 to 30 percent
Restrictive feature: None
Drainage class: Well drained and moderately well drained
Land capability classification (nonirrigated): 8

This map unit consists of small to large areas that are actively mined for gravel or sand or that were recently used for that purpose and have not been reclaimed. These areas are commonly open pits or open excavations from which the overlying soil material has been removed, exposing the underlying sandy Coastal Plain sediments or gravelly fluvial deposits. These pits typically have vertical to nearly vertical walls that are 10 to more than 30 feet high.

PoA—Providence silt loam, 0 to 2 percent slopes

Map Unit Composition

Major components
Providence and similar soils: 95 to 100 percent

Contrasting inclusions
Kurk soils: 0 to 5 percent

Component Description

Providence
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides

Slope shape and hillslope position: Linear; summits
Parent material: Loess over loamy marine deposits
Slope: 0 to 2 percent
Depth to restrictive feature: 16 to 34 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 9.0 inches)
Shrink-swell potential: Low (About 2.7 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 11 to 42 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 9 inches; brown silt loam; strongly acid
Subsoil—9 to 24 inches; dark yellowish brown silt loam; strongly acid
Subsoil—24 to 30 inches; yellowish brown silty clay loam; strongly acid
Subsoil—30 to 42 inches; yellowish brown silt loam; strongly acid
Subsoil—42 to 60 inches; dark yellowish brown loam; strongly acid
Subsoil—60 to 80 inches; yellowish brown loam; strongly acid

Use and Management

Cropland
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled fire can result in a loss of soil productivity.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets

- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

PoB2—Providence silt loam, 2 to 5 percent slopes, eroded

Map Unit Composition

Major components

Providence and similar soils: 82 to 100 percent

Component Description

Providence

Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; footslopes and summits
Parent material: Loess over loamy marine deposits
Slope: 2 to 5 percent
Depth to restrictive feature: 16 to 28 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 7.6 inches)
Shrink-swell potential: Low (About 2.7 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 12 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 2e
Typical profile:

Surface layer—0 to 6 inches; dark yellowish brown silt loam; slightly acid
Subsoil—6 to 11 inches; dark yellowish brown silt loam; moderately acid
Subsoil—11 to 18 inches; yellowish brown silt loam that has light yellowish brown masses of oxidized iron; strongly acid
Subsoil—18 to 32 inches; yellowish brown silty clay loam that has strong brown masses of oxidized iron; strongly acid
Subsoil—32 to 44 inches; yellowish brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—44 to 62 inches; yellowish brown loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—62 to 80 inches; light brownish gray, gray, light gray, red, yellowish brown, and yellowish red sandy clay loam; strongly acid

Use and Management

Cropland

- All areas of this soil are prime farmland.
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.

- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

PoC2—Providence silt loam, 5 to 8 percent slopes, eroded

Map Unit Composition

Major components
Providence and similar soils: 92 to 100 percent

Component Description

Providence
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; footslopes and summits
Parent material: Loess over loamy marine deposits
Slope: 5 to 8 percent
Depth to restrictive feature: 16 to 28 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Moderate (About 7.6 inches)
Shrink-swell potential: Low (About 2.7 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 12 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 6 inches; dark yellowish brown silt loam; slightly acid
Subsoil—6 to 11 inches; dark yellowish brown silt loam; moderately acid
Subsoil—11 to 18 inches; yellowish brown silt loam that has light yellowish brown masses of oxidized iron; strongly acid
Subsoil—18 to 32 inches; yellowish brown silty clay loam that has strong brown masses of oxidized iron; strongly acid
Subsoil—32 to 44 inches; yellowish brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—44 to 62 inches; yellowish brown loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—62 to 80 inches; light brownish gray, gray, light gray, red, yellowish brown, and yellowish red sandy clay loam; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.

- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

PoD2—Providence silt loam, 8 to 12 percent slopes, eroded

Map Unit Composition

Major components
Providence and similar soils: 92 to 100 percent

Component Description

Providence
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Convex; backslopes and shoulders
Parent material: Loess over loamy marine deposits
Slope: 8 to 12 percent
Depth to restrictive feature: 16 to 28 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 7.6 inches)
Shrink-swell potential: Low (About 2.7 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 12 to 16 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 6 inches; dark yellowish brown silt loam; slightly acid
Subsoil—6 to 11 inches; dark yellowish brown silt loam; moderately acid
Subsoil—11 to 18 inches; yellowish brown silt loam that has light yellowish brown masses of oxidized iron; strongly acid
Subsoil—18 to 32 inches; yellowish brown silty clay loam that has strong brown masses of oxidized iron; strongly acid
Subsoil—32 to 44 inches; yellowish brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—44 to 62 inches; yellowish brown loam that has yellowish brown masses of oxidized iron; strongly acid

Subsoil—62 to 80 inches; light brownish gray, gray, light gray, red, yellowish brown, and yellowish red sandy clay loam; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soil is disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

PrB3—Providence silty clay loam, 2 to 5 percent slopes, severely eroded

Map Unit Composition

Major components
Providence and similar soils: 95 to 100 percent

Component Description

Providence
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Terraces, divides
Slope shape and hillslope position: Convex; footslopes and shoulders
Parent material: Loess over loamy marine deposits
Slope: 2 to 5 percent
Depth to restrictive feature: 12 to 16 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 7.3 inches)
Shrink-swell potential: Moderate (About 3.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 8 to 12 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 3 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—3 to 15 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—15 to 22 inches; yellowish brown silt loam that has strong brown masses of oxidized iron; strongly acid
Subsoil—22 to 30 inches; yellowish brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—30 to 45 inches; dark yellowish brown loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—45 to 58 inches; strong brown sandy clay loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—58 to 80 inches; strong brown sandy loam; strongly acid

Use and Management

Cropland
- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland

- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland

- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites

- This soil is well suited to building site development.

Septic tank absorption fields

- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets

- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.

PrC3—Providence silty clay loam, 5 to 8 percent slopes, severely eroded

Map Unit Composition

Major components

Providence and similar soils: 95 to 100 percent

Component Description

Providence

Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Terraces, divides
Slope shape and hillslope position: Convex; footslopes and summits
Parent material: Loess over loamy marine deposits
Slope: 5 to 8 percent
Depth to restrictive feature: 12 to 16 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 7.3 inches)
Shrink-swell potential: Moderate (About 3.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 8 to 12 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 4e

Typical profile:

Surface layer—0 to 3 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—3 to 15 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—15 to 22 inches; yellowish brown silt loam that has strong brown masses of oxidized iron; strongly acid
Subsoil—22 to 30 inches; yellowish brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—30 to 45 inches; dark yellowish brown loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—45 to 58 inches; strong brown sandy clay loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—58 to 80 inches; strong brown sandy loam; strongly acid

Use and Management

Cropland

- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.
- Grassed waterways can be used in some areas to slow and re-direct the movement of water and thereby reduce the hazard of further erosion.
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland

- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland

- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites

- This soil is well suited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.

PrD3—Providence silty clay loam, 8 to 12 percent slopes, severely eroded

Map Unit Composition

Major components
Providence and similar soils: 95 to 100 percent

Component Description

Providence
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Convex; backslopes and shoulders
Parent material: Loess over loamy marine deposits
Slope: 8 to 12 percent
Depth to restrictive feature: 12 to 16 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 7.3 inches)
Shrink-swell potential: Moderate (About 3.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 8 to 12 inches (perched)
Runoff class: Very high
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 3 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—3 to 15 inches; dark yellowish brown silty clay loam; strongly acid
Subsoil—15 to 22 inches; yellowish brown silt loam that has strong brown masses of oxidized iron; strongly acid
Subsoil—22 to 30 inches; yellowish brown silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—30 to 45 inches; dark yellowish brown loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—45 to 58 inches; strong brown sandy clay loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—58 to 80 inches; strong brown sandy loam; strongly acid

Use and Management

Cropland
- This soil is generally not suited to cropland.
- The rooting depth is restricted by dense soil material.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- This soil provides poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soil is disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

Pu—Pruitton silt loam, 0 to 3 percent slopes, occasionally flooded

Map Unit Composition

Major components
Pruitton and similar soils: 86 to 100 percent

Contrasting inclusions
Ennis soils: 0 to 9 percent
Lobelville soils: 0 to 5 percent

Component Description

Pruitton
Major land resource area: 122—Highland Rim and Pennyroyal

Landform: Flood plains
Hillslope position: None
Parent material: Loamy alluvium
Slope: 0 to 3 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 8.6 inches)
Shrink-swell potential: Low (About 1.1 percent linear extensibility)
Flooding: Occasional
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Very low
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 6 inches; dark yellowish brown silt loam; moderately acid
Subsoil—6 to 17 inches; dark yellowish brown silt loam; strongly acid
Subsoil—17 to 27 inches; yellowish brown silt loam that has brown iron depletions; strongly acid
Subsoil—27 to 34 inches; yellowish brown loam that has yellowish brown masses of oxidized iron; very strongly acid
Subsoil—34 to 51 inches; brown gravelly loam that has yellowish brown masses of oxidized iron; very strongly acid
Substratum—51 to 80 inches; brown very gravelly loam; very strongly acid

Use and Management

Cropland
- This soil is prime farmland where it is either protected from flooding or not frequently flooded during the growing season.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soil from scouring and to minimize the amount of crop residue lost to flooding.
- Small-grain crops can be damaged by flooding in winter and spring.

Pastureland
- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.

Forestland
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.

Building sites
- Under normal weather conditions, this soil is subject to occasional flooding. The flooding can result in physical damage requiring costly repairs to buildings. Areas of this soil are therefore generally unsuitable as homesites. Some non-dwelling

structures, such as farm outbuildings, may need special design to minimize the damage caused by flooding.

Septic tank absorption fields
- Areas of this soil are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Special design is needed to prevent flood damage to roads and bridges.

Re—Riverby-Ennis complex, 0 to 3 percent slopes, occasionally flooded

Map Unit Composition

Major components
Riverby and similar soils: 50 to 80 percent
Ennis and similar soils: 20 to 50 percent

Component Descriptions

Riverby
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Flood plains
Hillslope position: None
Parent material: Loamy alluvium
Slope: 0 to 3 percent
Restrictive feature: None
Drainage class: Excessively drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 1.2 inches)
Shrink-swell potential: Low (About 0.4 percent linear extensibility)
Flooding: Occasional
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Very low
Land capability classification (nonirrigated): 4s
Typical profile:
Surface layer—0 to 5 inches; dark brown very gravelly loam; strongly acid
Substratum—5 to 19 inches; dark yellowish brown extremely gravelly loamy coarse sand; strongly acid
Substratum—19 to 72 inches; yellowish brown extremely gravelly loamy coarse sand; very strongly acid

Ennis
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Gravelly flood plains
Hillslope position: None
Parent material: Gravelly alluvium
Slope: 0 to 3 percent

Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 6.3 inches)
Shrink-swell potential: Low (About 0.9 percent linear extensibility)
Flooding: Occasional
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Very low
Land capability classification (nonirrigated): 2w
Typical profile:
Surface layer—0 to 4 inches; dark brown gravelly silt loam; strongly acid
Subsoil—4 to 7 inches; yellowish brown gravelly loam; strongly acid
Subsoil—7 to 22 inches; yellowish brown gravelly silt loam; strongly acid
Substratum—22 to 37 inches; yellowish brown very gravelly loam; very strongly acid
Subsoil—37 to 80 inches; dark yellowish brown gravelly silt loam; strongly acid

Use and Management

Cropland
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Careful selection and application of chemicals and fertilizers reduce the hazard of groundwater contamination.
- Clods can form if these soils are tilled when wet.
- Maintaining or increasing the content of organic matter in the soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soils from scouring and to minimize the amount of crop residue lost to flooding.
- Small-grain crops can be damaged by flooding in winter and spring.

Pastureland
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.

Forestland
- The limited available water capacity inhibits root development and increases the seedling mortality rate.
- The low strength of these soils can cause the formation of ruts, which can result in unsafe conditions and damage to equipment.
- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in these soils is high enough that the soils becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- The sandiness of the soils may reduce the traction of wheeled harvest equipment and log trucks.

- Sandy layers may slough, thereby reducing the efficiency of mechanical planting equipment.
- Because of rock fragments, the use of mechanical planting equipment is not practical.
- Stones restrict the use of equipment during site preparation for planting or seeding.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- Under normal weather conditions, these soils are subject to occasional flooding. The flooding can result in physical damage requiring costly repairs to buildings. Areas of these soils are therefore generally unsuitable as homesites. Some non-dwelling structures, such as farm outbuildings, may need special design to minimize the damage caused by flooding.
- Because of the high content of sand or gravel in the soils, the resistance to sloughing is reduced in shallow excavations and the excavation walls are unstable.

Septic tank absorption fields
- Areas of these soils are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Special design is needed to prevent flood damage to roads and bridges.

RO—Rosebloom and Bibb soils, 0 to 2 percent slopes, frequently flooded

Map Unit Composition

Major components
Rosebloom and similar soils: 0 to 100 percent
Bibb and similar soils: 0 to 100 percent

Component Descriptions

Rosebloom
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Flood plains
Hillslope position: None
Parent material: Silty alluvium over loamy alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.5 inches)
Shrink-swell potential: Low (About 1.7 percent linear extensibility)
Flooding: Frequent
Ponding: None
Depth to seasonal water saturation: About 0 to 12 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 6w
Typical profile:
Surface layer—0 to 6 inches; grayish brown silt loam that has yellowish red masses of oxidized iron; strongly acid

Subsoil—6 to 28 inches; gray silt loam that has strong brown masses of oxidized iron; strongly acid
Substratum—28 to 60 inches; gray silt loam that has strong brown masses of oxidized iron; strongly acid
Substratum—60 to 80 inches; dark gray fine sandy loam; very strongly acid

Bibb
Major land resource area: 133A—Southern Coastal Plain
Landform: Flood plains
Hillslope position: None
Parent material: Coarse-loamy alluvium
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: Frequent
Ponding: None
Depth to seasonal water saturation: About 0 to 12 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 6w
Typical profile:
Surface layer—0 to 3 inches; very dark gray silt loam; moderately acid
Substratum—3 to 8 inches; brown and grayish brown sandy loam and silt loam; moderately acid
Substratum—8 to 18 inches; gray sandy loam; strongly acid
Substratum—18 to 22 inches; gray silt loam; strongly acid
Substratum—22 to 50 inches; light brownish gray loamy sand and sandy loam; strongly acid
Substratum—50 to 80 inches; gray loam; strongly acid

Use and Management

Cropland
- Typically, crops are not grown on these soils because of the frequent flooding.
- Clods can form if these soils are tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- Measures are needed to protect the soils from scouring and to minimize the amount of crop residue lost to flooding.

Pastureland
- Forage production can be improved by seeding grass-legume mixtures that are tolerant of flooding.
- Sediment left after flooding can reduce the palatability of forage plants and the intake of forage by grazing animals.
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland
- Standing water can restrict root respiration and thereby inhibit the growth of some species of seedlings.

- The low strength of the soils increases the cost of constructing haul roads and log landings.
- Flooding restricts the safe use of roads by log trucks and can result in damage to haul roads and increased maintenance costs.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.

Building sites
- The frequent flooding greatly increases the risk of damage to buildings. Because of the flooding, these soils are generally unsuited to building site development.

Septic tank absorption fields
- Areas of these soils are generally unsuitable as sites for septic tank absorption fields. The flooding greatly limits the absorption and proper treatment of the effluent from septic systems. Rapidly moving floodwater can damage some components of septic systems.

Local roads and streets
- Because of low bearing strength, these soils are generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.
- Special design is needed to prevent flood damage to roads and bridges.

RtA—Routon silt loam, 0 to 2 percent slopes

Map Unit Composition

Major components
Routon and similar soils: 95 to 100 percent

Component Description

Routon
Major land resource area: 134—Southern Mississippi Valley Loess
Landform: Divides
Slope shape and hillslope position: Concave; summits
Parent material: Loess
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Very high (About 12.5 inches)
Shrink-swell potential: Low (About 2.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 0 to 12 inches (apparent)
Runoff class: Very high
Land capability classification (nonirrigated): 3w
Typical profile:
Surface layer—0 to 6 inches; grayish brown silt loam; moderately acid
Subsurface layer—6 to 17 inches; light gray silt that has light yellowish brown masses of oxidized iron; moderately acid
Subsoil—17 to 29 inches; gray silt loam that has yellowish brown masses of oxidized iron; strongly acid

Subsoil—29 to 37 inches; gray silty clay loam that has olive yellow masses of oxidized iron; very strongly acid
Subsoil—37 to 51 inches; light brownish gray silt loam that has yellowish brown masses of oxidized iron; very strongly acid
Subsoil—51 to 80 inches; brown silty clay loam that has strong brown masses of oxidized iron; very strongly acid

Use and Management

Cropland
- This map unit is prime farmland where it has been drained.
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- This map unit is poorly suited to building site development. Special design may be needed to prevent the wetness from causing damage to structures. Because of the seasonal high water table, the period when excavations can be made may be restricted, a higher degree of construction site development may be required, and extra building maintenance may be necessary.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.

Local roads and streets
- Because of low bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

RuA—Routon silt loam, 0 to 2 percent slopes, ponded

Map Unit Composition

Major components
Routon and similar soils: 95 to 100 percent

Component Description

Routon
Major land resource area: 134—Southern Mississippi Valley Loess

Landform: Divides
Slope shape and hillslope position: Concave; summits
Parent material: Loess
Slope: 0 to 2 percent
Restrictive feature: None
Drainage class: Poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Very high (About 12.5 inches)
Shrink-swell potential: Low (About 2.0 percent linear extensibility)
Flooding: None
Ponding: Occasional
Depth to seasonal water saturation: About 0 to 12 inches (apparent)
Runoff class: Negligible
Land capability classification (nonirrigated): 3w
Typical profile:
Surface layer—0 to 6 inches; grayish brown silt loam; moderately acid
Subsurface layer—6 to 17 inches; light gray silt that has light yellowish brown masses of oxidized iron; moderately acid
Subsoil—17 to 29 inches; gray silt loam that has yellowish brown masses of oxidized iron; strongly acid
Subsoil—29 to 37 inches; gray silty clay loam that has olive yellow masses of oxidized iron; very strongly acid
Subsoil—37 to 51 inches; light brownish gray silt loam that has yellowish brown masses of oxidized iron; very strongly acid
Subsoil—51 to 80 inches; brown silty clay loam that has strong brown masses of oxidized iron; very strongly acid

Use and Management

Cropland
- Clods can form if this soil is tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in the soil minimizes crusting, improves tilth, and increases the rate of water infiltration.
- A combination of surface and subsurface drainage is needed to remove excess water.

Pastureland
- Excess water should be removed, or grass or legume species that are adapted to wet soil conditions should be planted.
- Compaction can be minimized by restricting grazing during wet periods.

Forestland
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- The ponding restricts the safe use of roads by log trucks.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The soil is generally unsuited to building site development. The ponding may restrict the period when excavations can be made and may necessitate intensive construction site development and building maintenance.

Septic tank absorption fields

- Because of ponding, this soil is generally unsuitable as a site for septic tank absorption fields.

Local roads and streets

- The ponding affects the ease of excavation and grading and limits the bearing capacity of this soil.
- Because of low the bearing strength, this soil is generally unfavorable for supporting heavy loads. Special design is needed to prevent structural damage to local roads and streets.

SaC2—Saffell-Brandon complex, 5 to 12 percent slopes, eroded

Map Unit Composition

Major components
Saffell and similar soils: 50 to 90 percent
Brandon and similar soils: 10 to 50 percent

Contrasting inclusions
Lax soils: 0 to 9 percent

Component Descriptions

Saffell
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; shoulders and backslopes
Parent material: Gravelly fluviomarine deposits (fig. 7)
Slope: 5 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.9 inches)
Shrink-swell potential: Low (About 1.4 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 2 inches; dark grayish brown gravelly silt loam; strongly acid
Subsurface layer—2 to 13 inches; light yellowish brown very gravelly silt loam; strongly acid
Subsoil—13 to 18 inches; yellowish brown very gravelly loam; very strongly acid
Subsoil—18 to 29 inches; strong brown extremely gravelly sandy clay loam; very strongly acid
Subsoil—29 to 40 inches; strong brown extremely gravelly loam; very strongly acid
Subsoil—40 to 51 inches; strong brown extremely gravelly loam; very strongly acid
Substratum—51 to 80 inches; strong brown extremely gravelly fine sandy loam; very strongly acid

Brandon
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills

Figure 7.—A gravel mine in an area of Saffell-Brandon complex, 5 to 12 percent slopes, eroded. The gravel is used for road fill, surfacing secondary roads, and other construction use.

Slope shape and hillslope position: Linear; summits and shoulders
Parent material: Loess over gravelly fluviomarine deposits
Slope: 5 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Low (About 1.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 1 inch; brown silt loam; very strongly acid
Subsurface layer—1 to 7 inches; yellowish brown silt loam; extremely acid
Subsoil—7 to 20 inches; yellowish red silty clay loam; very strongly acid
Subsoil—20 to 29 inches; reddish brown silty clay loam; strongly acid
Subsoil—29 to 36 inches; strong brown gravelly silt loam; very strongly acid
Subsoil—36 to 68 inches; yellowish red very gravelly loam; strongly acid

Use and Management

Cropland

- Erosion has removed part of the surface soil. The remaining surface soil is less productive and more difficult to manage.

- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of further erosion.
- Clods can form if these soils are tilled when wet.
- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Erosion-control measures are needed when pastures are renovated.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The low strength of the soils increases the cost of constructing haul roads and log landings and can cause the formation of ruts, which can result in unsafe conditions and damage to equipment.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Rock fragments restrict the use of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of the slope, local roads and streets are difficult to design.

SaE2—Saffell-Brandon complex, 12 to 25 percent slopes, eroded

Map Unit Composition

Major components
Saffell and similar soils: 50 to 90 percent
Brandon and similar soils: 10 to 50 percent

Component Descriptions

Saffell
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; shoulders and backslopes
Parent material: Gravelly fluviomarine deposits
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.9 inches)

Shrink-swell potential: Low (About 1.4 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 2 inches; dark grayish brown gravelly silt loam; strongly acid
Subsurface layer—2 to 13 inches; light yellowish brown very gravelly silt loam; strongly acid
Subsoil—13 to 18 inches; yellowish brown very gravelly loam; very strongly acid
Subsoil—18 to 29 inches; strong brown extremely gravelly sandy clay loam; very strongly acid
Subsoil—29 to 40 inches; strong brown extremely gravelly loam; very strongly acid
Subsoil—40 to 51 inches; strong brown extremely gravelly loam; very strongly acid
Substratum—51 to 80 inches; strong brown extremely gravelly fine sandy loam; very strongly acid

Brandon
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Linear; backslopes and shoulders
Parent material: Loess over gravelly fluviomarine deposits
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Low (About 1.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 1 inch; brown silt loam; very strongly acid
Subsurface layer—1 to 7 inches; yellowish brown silt loam; extremely acid
Subsoil—7 to 20 inches; yellowish red silty clay loam; very strongly acid
Subsoil—20 to 29 inches; reddish brown silty clay loam; strongly acid
Subsoil—29 to 36 inches; strong brown gravelly silt loam; very strongly acid
Subsoil—36 to 68 inches; yellowish red very gravelly loam; strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of further erosion.
- Erosion-control measures are needed when pastures are renovated.
- Soil slippage can affect fencing patterns, increase the cost of maintaining fences and buried water pipelines, and cause uneven slopes, which can affect equipment use and the grazing patterns of animals. Removing excess water can help to prevent the slippage.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope increases excavation costs, increases the hazard of further erosion during construction of haul roads and log landings, creates unsafe operating conditions, reduces the operating efficiency of log trucks, can restrict the use of some mechanical planting equipment, and restricts the use of equipment during site preparation for planting and seeding.
- The low strength of the soils increases the cost of constructing haul roads and log landings and can cause the formation of ruts, which can result in unsafe conditions and damage to equipment.
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- Sandy layers in the soils increase the need for maintenance of haul roads and log landings.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Rock fragments restrict the use of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of the slope, local roads and streets are difficult to design.

SAF—Saffell, Smithdale, and Brandon soils, 25 to 60 percent slopes

Map Unit Composition

Major components
Saffell and similar soils: 0 to 100 percent
Smithdale and similar soils: 0 to 100 percent
Brandon and similar soils: 0 to 100 percent

Component Descriptions

Saffell
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; shoulders, side slopes, and backslopes
Parent material: Gravelly fluviomarine deposits
Slope: 25 to 60 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.9 inches)
Shrink-swell potential: Low (About 1.4 percent linear extensibility)
Flooding: None

Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 7e
Typical profile:
Surface layer—0 to 2 inches; dark grayish brown gravelly silt loam; strongly acid
Subsurface layer—2 to 13 inches; light yellowish brown very gravelly silt loam; strongly acid
Subsoil—13 to 18 inches; yellowish brown very gravelly loam; very strongly acid
Subsoil—18 to 29 inches; strong brown extremely gravelly sandy clay loam; very strongly acid
Subsoil—29 to 40 inches; strong brown extremely gravelly loam; very strongly acid
Subsoil—40 to 51 inches; strong brown extremely gravelly loam; very strongly acid
Substratum—51 to 80 inches; strong brown extremely gravelly fine sandy loam; very strongly acid

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Loamy marine deposits
Slope: 25 to 60 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 7e
Typical profile:
Surface layer—0 to 3 inches; brown loam; very strongly acid
Subsurface layer—3 to 5 inches; yellowish brown loam; strongly acid
Subsoil—5 to 9 inches; strong brown loam; very strongly acid
Subsoil—9 to 20 inches; yellowish red clay loam; very strongly acid
Subsoil—20 to 44 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—44 to 56 inches; red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; red sandy loam; very strongly acid

Brandon
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Concave; backslopes
Parent material: Loess over gravelly fluviomarine deposits
Slope: 25 to 60 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Low (About 1.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet

Runoff class: High
Land capability classification (nonirrigated): 7e
Typical profile:
Surface layer—0 to 1 inch; brown silt loam; very strongly acid
Subsurface layer—1 to 7 inches; yellowish brown silt loam; extremely acid
Subsoil—7 to 20 inches; yellowish red silty clay loam; very strongly acid
Subsoil—20 to 29 inches; reddish brown silty clay loam; strongly acid
Subsoil—29 to 36 inches; strong brown gravelly silt loam; very strongly acid
Subsoil—36 to 68 inches; yellowish red very gravelly loam; strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.
- Generally, cultivation is impractical in areas of this map unit because of the slope and the hazard of erosion.

Pastureland
- These soils are generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of erosion is increased if the soils are disturbed and the use of mechanical planting equipment is not practical.
- The slope increases excavation costs, increases the hazard of erosion during construction of haul roads and log landings, creates unsafe operating conditions, reduces the operating efficiency of log trucks and harvesting and mechanical planting equipment, and restricts the use of equipment during site preparation for planting and seeding.
- The low strength of the soils increases the cost of constructing haul roads and log landings and can cause the formation of ruts, which can result in unsafe conditions and damage to equipment.
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Rock fragments restrict the use of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of the slope, local roads and streets are difficult to design.

SeD2—Smithdale loam, 8 to 12 percent slopes, eroded

Map Unit Composition

Major components
Smithdale and similar soils: 85 to 100 percent

Component Description

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes and summits
Parent material: Loamy marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 3 inches; brown loam; very strongly acid
Subsurface layer—3 to 5 inches; yellowish brown loam; strongly acid
Subsoil—5 to 9 inches; strong brown loam; very strongly acid
Subsoil—9 to 20 inches; yellowish red clay loam; very strongly acid
Subsoil—20 to 44 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—44 to 56 inches; red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; red sandy loam; very strongly acid

Use and Management

Cropland
- This soil is generally not suited to cropland.

Pastureland
- This soil is generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soil is disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SeD3—Smithdale loam, 8 to 12 percent slopes, severely eroded

Map Unit Composition

Major components
Smithdale and similar soils: 85 to 100 percent

Component Description

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Loamy marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 2 inches; brown loam; very strongly acid
Subsoil—2 to 24 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—24 to 56 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; reddish brown sandy loam; very strongly acid

Use and Management

Cropland
- This soil is generally not suited to cropland.

Pastureland
- This soil is generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soil is disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SeE2—Smithdale loam, 12 to 25 percent slopes, eroded

Map Unit Composition

Major components
Smithdale and similar soils: 85 to 100 percent

Component Description

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Loamy marine deposits
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 3 inches; brown loam; very strongly acid
Subsurface layer—3 to 5 inches; yellowish brown loam; strongly acid
Subsoil—5 to 9 inches; strong brown loam; very strongly acid
Subsoil—9 to 20 inches; yellowish red clay loam; very strongly acid
Subsoil—20 to 44 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—44 to 56 inches; red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; red sandy loam; very strongly acid

Use and Management

Cropland
- This soil is generally not suited to cropland.

Pastureland
- This soil is generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soil is disturbed.
- The slope increases excavation costs, increases the hazard of further erosion during construction of haul roads and log landings, creates unsafe operating conditions, reduces the operating efficiency of log trucks, can restrict the use of some mechanical planting equipment, and restricts the use of equipment during site preparation for planting and seeding.
- The low strength of the soil increases the cost of constructing haul roads and log landings.
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- The content of clay in this soil is high enough that the soil becomes sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soil.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- The restricted permeability of this soil limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SgD2—Smithdale-Lexington complex, 8 to 12 percent slopes, eroded

Map Unit Composition

Major components
Smithdale and similar soils: 55 to 90 percent
Lexington and similar soils: 10 to 45 percent

Component Descriptions

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes and summits
Parent material: Loamy marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None

Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 3 inches; brown loam; very strongly acid
Subsurface layer—3 to 5 inches; yellowish brown loam; strongly acid
Subsoil—5 to 9 inches; strong brown loam; very strongly acid
Subsoil—9 to 20 inches; yellowish red clay loam; very strongly acid
Subsoil—20 to 44 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—44 to 56 inches; red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; red sandy loam; very strongly acid

Lexington
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Linear; backslopes
Parent material: Loess over marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: Low (About 2.6 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 6 inches; dark yellowish brown silt loam; slightly acid
Subsoil—6 to 18 inches; strong brown silty clay loam; moderately acid
Subsoil—18 to 29 inches; strong brown silt loam; moderately acid
Subsoil—29 to 35 inches; dark yellowish brown silt loam; strongly acid
Subsoil—35 to 47 inches; strong brown loam; strongly acid
Subsoil—47 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.

Pastureland
- These soils are generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The low strength of the soils increases the cost of constructing haul roads and log landings.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SgD3—Smithdale-Lexington complex, 8 to 12 percent slopes, severely eroded

Map Unit Composition

Major components
Smithdale and similar soils: 55 to 90 percent
Lexington and similar soils: 10 to 45 percent

Component Descriptions

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Loamy marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 2 inches; brown loam; very strongly acid
Subsoil—2 to 24 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—24 to 56 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; reddish brown sandy loam; very strongly acid

Lexington
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Loess over marine deposits

Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.3 inches)
Shrink-swell potential: Low (About 2.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 6 inches; brown silty clay loam; slightly acid
Subsoil—6 to 18 inches; strong brown silty clay loam; moderately acid
Subsoil—18 to 29 inches; strong brown silt loam; moderately acid
Subsoil—29 to 35 inches; dark yellowish brown silt loam; strongly acid
Subsoil—35 to 47 inches; strong brown loam; strongly acid
Subsoil—47 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.

Pastureland
- These soils are generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SgE2—Smithdale-Lexington complex, 12 to 25 percent slopes, eroded

Map Unit Composition

Major components
Smithdale and similar soils: 55 to 90 percent
Lexington and similar soils: 10 to 45 percent

Component Descriptions

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Loamy marine deposits
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 3 inches; brown loam; very strongly acid
Subsurface layer—3 to 5 inches; yellowish brown loam; strongly acid
Subsoil—5 to 9 inches; strong brown loam; very strongly acid
Subsoil—9 to 20 inches; yellowish red clay loam; very strongly acid
Subsoil—20 to 44 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—44 to 56 inches; red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; red sandy loam; very strongly acid

Lexington
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Linear; shoulders and backslopes
Parent material: Loess over marine deposits
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: Low (About 2.6 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 6 inches; dark yellowish brown silt loam; slightly acid
Subsoil—6 to 18 inches; strong brown silty clay loam; moderately acid

Subsoil—18 to 29 inches; strong brown silt loam; moderately acid
Subsoil—29 to 35 inches; dark yellowish brown silt loam; strongly acid
Subsoil—35 to 47 inches; strong brown loam; strongly acid
Subsoil—47 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.

Pastureland
- These soils are generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope increases excavation costs, increases the hazard of further erosion during construction of haul roads and log landings, creates unsafe operating conditions, reduces the operating efficiency of log trucks, can restrict the use of some mechanical planting equipment, and restricts the use of equipment during site preparation for planting and seeding.
- The low strength of the soils increases the cost of constructing haul roads and log landings.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs are required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SgE3—Smithdale-Lexington complex, 12 to 25 percent slopes, severely eroded

Map Unit Composition

Major components
Smithdale and similar soils: 55 to 90 percent
Lexington and similar soils: 10 to 45 percent

Component Descriptions

Smithdale
Major land resource area: 133A—Southern Coastal Plain

Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Loamy marine deposits
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 7e
Typical profile:
Surface layer—0 to 2 inches; brown loam; very strongly acid
Subsoil—2 to 24 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—24 to 56 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; reddish brown sandy loam; very strongly acid

Lexington
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; shoulders and backslopes
Parent material: Loess over marine deposits
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.3 inches)
Shrink-swell potential: Low (About 2.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 6 inches; brown silty clay loam; slightly acid
Subsoil—6 to 18 inches; strong brown silty clay loam; moderately acid
Subsoil—18 to 29 inches; strong brown silt loam; moderately acid
Subsoil—29 to 35 inches; dark yellowish brown silt loam; strongly acid
Subsoil—35 to 47 inches; strong brown loam; strongly acid
Subsoil—47 to 80 inches; yellowish red loam that has light yellowish brown masses of oxidized iron; strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.

Pastureland
- These soils are generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.

- The slope increases excavation costs, increases the hazard of further erosion during construction of haul roads and log landings, creates unsafe operating conditions, reduces the operating efficiency of log trucks, can restrict the use of some mechanical planting equipment, and restricts the use of equipment during site preparation for planting and seeding.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings and can create unsafe conditions for log trucks.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs are required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SnD2—Smithdale-Luverne complex, 8 to 12 percent slopes, eroded

Map Unit Composition

Major components
Smithdale and similar soils: 50 to 90 percent
Luverne and similar soils: 10 to 50 percent

Component Descriptions

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes and shoulders
Parent material: Loamy marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet

Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 3 inches; brown loam; very strongly acid
Subsurface layer—3 to 5 inches; yellowish brown loam; strongly acid
Subsoil—5 to 9 inches; strong brown loam; very strongly acid
Subsoil—9 to 20 inches; yellowish red clay loam; very strongly acid
Subsoil—20 to 44 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—44 to 56 inches; red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; red sandy loam; very strongly acid

Luverne
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes and shoulders
Parent material: Clayey marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 8.7 inches)
Shrink-swell potential: Moderate (About 4.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 1 inch; dark yellowish brown fine sandy loam; moderately acid
Surface layer—1 to 4 inches; brown fine sandy loam; strongly acid
Subsoil—4 to 12 inches; yellowish brown fine sandy loam; strongly acid
Subsoil—12 to 21 inches; yellowish red clay; strongly acid
Subsoil—21 to 37 inches; yellowish red clay; very strongly acid
Subsoil—37 to 71 inches; red, strong brown, yellowish red, and light gray clay loam; very strongly acid
Substratum—71 to 80 inches; light gray loam that has reddish yellow masses of oxidized iron; very strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.

Pastureland
- These soils are generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The low strength of the soils increases the cost of constructing haul roads and log landings.
- The content of clay in these soils is high enough that the soils become sticky

when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SnD3—Smithdale-Luverne complex, 8 to 12 percent slopes, severely eroded

Map Unit Composition

Major components
Smithdale and similar soils: 50 to 90 percent
Luverne and similar soils: 10 to 50 percent

Component Descriptions

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes and shoulders
Parent material: Loamy marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 2 inches; brown loam; very strongly acid
Subsoil—2 to 24 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—24 to 56 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; reddish brown sandy loam; very strongly acid

Luverne
Major land resource area: 133A—Southern Coastal Plain

Landform: Hills
Slope shape and hillslope position: Convex; shoulders and backslopes
Parent material: Clayey marine deposits
Slope: 8 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Moderate (About 4.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 3 inches; yellowish brown clay loam; very strongly acid
Subsoil—3 to 8 inches; strong brown clay; very strongly acid
Subsoil—8 to 25 inches; brown clay; very strongly acid
Subsoil—25 to 37 inches; brown clay loam; very strongly acid
Subsoil—37 to 80 inches; yellowish red clay loam; very strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.

Pastureland
- These soils are generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The low strength of the soils increases the cost of constructing haul roads and log landings.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SnE2—Smithdale-Luverne complex, 12 to 25 percent slopes, eroded

Map Unit Composition

Major components
Smithdale and similar soils: 50 to 90 percent
Luverne and similar soils: 10 to 50 percent

Component Descriptions

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Loamy marine deposits
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 3 inches; brown loam; very strongly acid
Subsurface layer—3 to 5 inches; yellowish brown loam; strongly acid
Subsoil—5 to 9 inches; strong brown loam; very strongly acid
Subsoil—9 to 20 inches; yellowish red clay loam; very strongly acid
Subsoil—20 to 44 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—44 to 56 inches; red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; red sandy loam; very strongly acid

Luverne
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Clayey marine deposits
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 8.7 inches)
Shrink-swell potential: Moderate (About 4.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 1 inch; dark yellowish brown fine sandy loam; moderately acid
Surface layer—1 to 4 inches; brown fine sandy loam; strongly acid

Subsoil—4 to 12 inches; yellowish brown fine sandy loam; strongly acid
Subsoil—12 to 21 inches; yellowish red clay; strongly acid
Subsoil—21 to 37 inches; yellowish red clay; very strongly acid
Subsoil—37 to 71 inches; red, strong brown, yellowish red, and light gray clay loam; very strongly acid
Substratum—71 to 80 inches; light gray loam that has reddish yellow masses of oxidized iron; very strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.

Pastureland
- These soils are generally not recommended for pasture.

Forestland
- Because of the slope, the hazard of further erosion is increased if the soils are disturbed.
- The slope increases excavation costs, increases the hazard of further erosion during construction of haul roads and log landings, creates unsafe operating conditions, reduces the operating efficiency of log trucks, can restrict the use of some mechanical planting equipment, and restricts the use of equipment during site preparation for planting and seeding.
- The low strength of the soils increases the cost of constructing haul roads and log landings.
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SRF—Smithdale, Remlik, and Luverne soils, 25 to 60 percent slopes

Map Unit Composition

Major components
Smithdale and similar soils: 0 to 100 percent
Remlik and similar soils: 0 to 100 percent
Luverne and similar soils: 0 to 100 percent

Contrasting inclusions
Arundel soils: 0 to 5 percent

Component Descriptions

Smithdale
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Loamy marine deposits
Slope: 25 to 60 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 7e
Typical profile:
Surface layer—0 to 3 inches; brown loam; very strongly acid
Subsurface layer—3 to 5 inches; yellowish brown loam; strongly acid
Subsoil—5 to 9 inches; strong brown loam; very strongly acid
Subsoil—9 to 20 inches; yellowish red clay loam; very strongly acid
Subsoil—20 to 44 inches; yellowish red sandy clay loam; very strongly acid
Subsoil—44 to 56 inches; red sandy clay loam; very strongly acid
Subsoil—56 to 80 inches; red sandy loam; very strongly acid

Remlik
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes and nose slopes
Parent material: Sandy marine deposits over loamy marine deposits
Slope: 25 to 60 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.57 in/hr)
Available water capacity: Moderate (About 7.5 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 7e
Typical profile:
Surface layer—0 to 3 inches; brown loamy sand; very strongly acid
Subsurface layer—3 to 11 inches; yellowish brown loamy sand; very strongly acid
Subsurface layer—11 to 25 inches; light yellowish brown loamy sand; very strongly acid
Subsoil—25 to 38 inches; strong brown sandy clay loam; very strongly acid
Subsoil—38 to 45 inches; strong brown sandy loam; very strongly acid
Subsoil—45 to 80 inches; strong brown sandy loam and very pale brown sand; very strongly acid

Luverne
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills
Slope shape and hillslope position: Convex; backslopes
Parent material: Clayey marine deposits
Slope: 25 to 60 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 8.7 inches)
Shrink-swell potential: Moderate (About 4.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 7e
Typical profile:
Surface layer—0 to 1 inch; dark yellowish brown fine sandy loam; moderately acid
Surface layer—1 to 4 inches; brown fine sandy loam; strongly acid
Subsoil—4 to 12 inches; yellowish brown fine sandy loam; strongly acid
Subsoil—12 to 21 inches; yellowish red clay; strongly acid
Subsoil—21 to 37 inches; yellowish red clay; very strongly acid
Subsoil—37 to 71 inches; red, strong brown, yellowish red, and light gray clay loam; very strongly acid
Substratum—71 to 80 inches; light gray loam that has reddish yellow masses of oxidized iron; very strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.
- Generally, cultivation is impractical in areas of this map unit because of the slope and the hazard of erosion.

Pastureland
- These soils are generally not recommended for pasture.
- Generally, pasture establishment is impractical in areas of this map unit because of the steep slopes.

Forestland
- Because of the slope, the hazard of erosion is increased if the soils are disturbed, the use of mechanical planting equipment is not practical, and the use of equipment to prepare the site for planting and seeding is not practical.
- The slope increases excavation costs, increases the hazard of erosion during construction of haul roads and log landings, creates unsafe operating conditions, and reduces the operating efficiency of log trucks, harvesting equipment, and mechanical planting equipment.
- The low strength of the soils increases the cost of constructing haul roads and log landings.
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SuC—Sugargrove-Sengtown-Hawthorne complex, 5 to 12 percent slopes

Map Unit Composition

Major components
Sugargrove and similar soils: 30 to 75 percent
Sengtown and similar soils: 20 to 65 percent
Hawthorne and similar soils: 5 to 50 percent

Contrasting inclusions
Lax soils: 0 to 6 percent

Component Descriptions

Sugargrove
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Convex; shoulders and summits
Parent material: Loamy residuum
Slope: 5 to 12 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 4.8 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 4e
Typical profile:
Surface layer—0 to 2 inches; brown gravelly silt loam; strongly acid
Subsurface layer—2 to 6 inches; pale brown gravelly silt loam; strongly acid
Subsoil—6 to 11 inches; light yellowish brown gravelly silt loam; strongly acid
Subsoil—11 to 18 inches; yellowish brown gravelly silt loam; strongly acid
Subsoil—18 to 28 inches; strong brown gravelly silty clay loam; very strongly acid
Substratum—28 to 80 inches; bedrock

Sengtown
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Convex; summits
Parent material: Clayey residuum
Slope: 5 to 12 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.2 inches)
Shrink-swell potential: Low (About 2.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 1 inch; dark yellowish brown gravelly silt loam; strongly acid
Subsoil—1 to 5 inches; strong brown gravelly silt loam; strongly acid
Subsoil—5 to 12 inches; yellowish red gravelly silty clay loam; strongly acid
Subsoil—12 to 20 inches; yellowish red very gravelly silty clay loam; strongly acid
Subsoil—20 to 36 inches; red gravelly clay; very strongly acid
Subsoil—36 to 63 inches; red gravelly clay; very strongly acid
Subsoil—63 to 80 inches; red very gravelly clay; very strongly acid

Hawthorne
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Linear; summits
Parent material: Residuum weathered from siltstone and/or residuum weathered from chert
Slope: 5 to 12 percent
Depth to restrictive feature: 24 to 40 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 3.1 inches)
Shrink-swell potential: Low (About 1.2 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 4s
Typical profile:
Surface layer—0 to 4 inches; dark brown gravelly silt loam; strongly acid
Subsurface layer—4 to 11 inches; yellowish brown gravelly silt loam; strongly acid
Subsoil—11 to 36 inches; strong brown very gravelly silt loam; very strongly acid
Substratum—36 to 80 inches; chert bedrock

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of erosion.
- Because of the limited available water capacity, plants can be affected by moisture

stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soils to hold moisture.
- Clods can form if these soils are tilled when wet.
- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.

Pastureland
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.

Forestland
- The low strength of the soils increases the cost of constructing haul roads and log landings and can cause the formation of ruts, which can result in unsafe conditions and damage to equipment.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Rock fragments restrict the use of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

SuE—Sugargrove-Sengtown-Hawthorne complex, 12 to 25 percent slopes

Map Unit Composition

Major components
Sugargrove and similar soils: 30 to 75 percent
Sengtown and similar soils: 20 to 65 percent
Hawthorne and similar soils: 5 to 50 percent

Component Descriptions

Sugargrove
Major land resource area: 122—Highland Rim and Pennyroyal

Landform: Hills
Slope shape and hillslope position: Convex; backslopes and shoulders
Parent material: Loamy residuum
Slope: 12 to 25 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 4.8 inches)
Shrink-swell potential: Low (About 1.0 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 2 inches; brown gravelly silt loam; strongly acid
Subsurface layer—2 to 6 inches; pale brown gravelly silt loam; strongly acid
Subsoil—6 to 11 inches; light yellowish brown gravelly silt loam; strongly acid
Subsoil—11 to 18 inches; yellowish brown gravelly silt loam; strongly acid
Subsoil—18 to 28 inches; strong brown gravelly silty clay loam; very strongly acid
Substratum—28 to 80 inches; bedrock

Sengtown
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Linear; backslopes and shoulders
Parent material: Clayey residuum
Slope: 12 to 25 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 6.2 inches)
Shrink-swell potential: Low (About 2.9 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 1 inch; dark yellowish brown gravelly silt loam; strongly acid
Subsoil—1 to 5 inches; strong brown gravelly silt loam; strongly acid
Subsoil—5 to 12 inches; yellowish red gravelly silty clay loam; strongly acid
Subsoil—12 to 20 inches; yellowish red very gravelly silty clay loam; strongly acid
Subsoil—20 to 36 inches; red gravelly clay; very strongly acid
Subsoil—36 to 63 inches; red gravelly clay; very strongly acid
Subsoil—63 to 80 inches; red very gravelly clay; very strongly acid

Hawthorne
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hills
Slope shape and hillslope position: Convex; backslopes, shoulders, and nose slopes
Parent material: Residuum weathered from siltstone and/or residuum weathered from chert
Slope: 12 to 25 percent
Depth to restrictive feature: 24 to 40 inches to paralithic bedrock

Drainage class: Somewhat excessively drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 3.1 inches)
Shrink-swell potential: Low (About 1.2 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: High
Land capability classification (nonirrigated): 6s
Typical profile:
Surface layer—0 to 4 inches; dark brown gravelly silt loam; strongly acid
Subsurface layer—4 to 11 inches; yellowish brown gravelly silt loam; strongly acid
Subsoil—11 to 36 inches; strong brown very gravelly silt loam; very strongly acid
Substratum—36 to 80 inches; chert bedrock

Use and Management

Cropland
- These soils are generally not suited to cropland.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- Soil slippage can affect fencing patterns, increase the cost of maintaining fences and buried water pipelines, and cause uneven slopes, which can affect equipment use and the grazing patterns of animals. Removing excess water can help to prevent the slippage.

Forestland
- Because of the slope, the hazard of erosion is increased if the soils are disturbed.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- The low strength of the soils increases the cost of constructing haul roads and log landings and can cause the formation of ruts, which can result in unsafe conditions and damage to equipment.
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings.
- Rock fragments restrict the use of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.

- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of low soil strength, special design is needed to prevent structural damage to local roads and streets.
- Because of the slope, local roads and streets are difficult to design.

TmC—Tarklin-Minvale complex, 5 to 12 percent slopes

Map Unit Composition

Major components
Tarklin and similar soils: 50 to 80 percent
Minvale and similar soils: 20 to 50 percent

Component Descriptions

Tarklin
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Terraces
Slope shape and hillslope position: Concave; footslopes
Parent material: Loamy colluvium
Slope: 5 to 12 percent
Depth to restrictive feature: 18 to 30 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Very low (About 2.8 inches)
Shrink-swell potential: Low (About 1.4 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 10 to 18 inches (perched)
Runoff class: High
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 2 inches; dark grayish brown silt loam; moderately acid
Subsurface layer—2 to 7 inches; pale brown silt loam; moderately acid
Subsurface layer—7 to 10 inches; light yellowish brown silt loam; moderately acid
Subsoil—10 to 20 inches; strong brown gravelly silt loam; strongly acid
Subsoil—20 to 34 inches; light yellowish brown very gravelly silt loam that has brownish yellow masses of oxidized iron; strongly acid
Subsoil—34 to 62 inches; brownish yellow very gravelly silt loam that has very pale brown iron depletions; very strongly acid
Subsoil—62 to 80 inches; brownish yellow very gravelly silt loam that has brownish yellow masses of oxidized iron; very strongly acid

Minvale
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Terraces
Slope shape and hillslope position: Linear; footslopes
Parent material: Loamy colluvium
Slope: 5 to 12 percent
Restrictive feature: None
Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.8 inches)
Shrink-swell potential: Low (About 1.2 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 3e
Typical profile:
Surface layer—0 to 5 inches; brown gravelly silt loam; moderately acid
Subsurface layer—5 to 11 inches; pale brown gravelly silt loam; strongly acid
Subsoil—11 to 18 inches; light yellowish brown gravelly silt loam; strongly acid
Subsoil—18 to 36 inches; strong brown gravelly silt loam; very strongly acid
Subsoil—36 to 50 inches; strong brown gravelly silt loam; very strongly acid
Subsoil—50 to 62 inches; dark yellowish brown gravelly silt loam; very strongly acid

Use and Management

Cropland
- Using a system of conservation tillage and planting cover crops reduce the runoff rate and the hazard of erosion.
- Because of the limited available water capacity, plants can be affected by moisture stress. Incorporating crop residue or other organic matter into the surface layer increases the capacity of the soil to hold moisture.
- Clods can form if these soils are tilled when wet.
- Compaction can be minimized by controlling traffic.
- Maintaining or increasing the content of organic matter in these soils minimizes crusting, improves tilth, and increases the rate of water infiltration.
- The rooting depth is restricted by dense soil material.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.
- The slope creates unsafe operating conditions, reduces the operating efficiency of log trucks, and can restrict the use of some mechanical planting equipment.
- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings, can create unsafe conditions for log trucks and, can cause the formation of ruts, which result in unsafe conditions and damage to equipment.
- Rock fragments restrict the use of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- The slope influences the use of machinery and the amount of excavation required. Special building practices and designs may be required to ensure satisfactory performance.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines; seepage of poorly treated effluent is a concern.

Local roads and streets
- Because of the slope, local roads and streets are difficult to design.

TmE—Tarklin-Minvale complex, 12 to 35 percent slopes

Map Unit Composition

Major components
Tarklin and similar soils: 50 to 70 percent
Minvale and similar soils: 30 to 50 percent

Component Descriptions

Tarklin
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hillslopes
Slope shape and hillslope position: Concave; footslopes
Parent material: Loamy colluvium
Slope: 12 to 35 percent
Depth to restrictive feature: 18 to 30 inches to fragipan
Drainage class: Moderately well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Very low (About 2.4 inches)
Shrink-swell potential: Low (About 1.8 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: About 10 to 18 inches (perched)
Runoff class: High
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 2 inches; dark grayish brown silt loam; moderately acid
Subsurface layer—2 to 7 inches; pale brown silt loam; moderately acid
Subsurface layer—7 to 10 inches; light yellowish brown silt loam; moderately acid
Subsoil—10 to 20 inches; strong brown gravelly silt loam; strongly acid
Subsoil—20 to 34 inches; light yellowish brown very gravelly silt loam that has brownish yellow masses of oxidized iron; strongly acid
Subsoil—34 to 62 inches; brownish yellow very gravelly silt loam that has very pale brown iron depletions; very strongly acid
Subsoil—62 to 80 inches; brownish yellow very gravelly silt loam that has brownish yellow masses of oxidized iron; very strongly acid

Minvale
Major land resource area: 122—Highland Rim and Pennyroyal
Landform: Hillslopes

Slope shape and hillslope position: Linear; footslopes
Parent material: Loamy colluvium
Slope: 12 to 20 percent
Restrictive feature: None
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.8 inches)
Shrink-swell potential: Low (About 1.5 percent linear extensibility)
Flooding: None
Ponding: None
Depth to seasonal water saturation: Greater than 6 feet
Runoff class: Medium
Land capability classification (nonirrigated): 6e
Typical profile:
Surface layer—0 to 5 inches; brown gravelly silt loam; moderately acid
Subsurface layer—5 to 11 inches; pale brown gravelly silt loam; strongly acid
Subsoil—11 to 18 inches; light yellowish brown gravelly silt loam; strongly acid
Subsoil—18 to 36 inches; strong brown gravelly silt loam; very strongly acid
Subsoil—36 to 50 inches; strong brown gravelly silt loam; very strongly acid
Subsoil—50 to 62 inches; dark yellowish brown gravelly silt loam; very strongly acid

Use and Management

Cropland
- These soils are generally not suited to cropland.
- The rooting depth is restricted by dense soil material.

Pastureland
- Applying proper stocking rates and maintaining a vegetative cover of healthy plants reduce the hazard of erosion.
- Erosion-control measures are needed when pastures are renovated.
- Because of the limited available water capacity, plants can be affected by moisture stress during the drier summer months.
- Soil moisture can be conserved by using a system of seedbed preparation that minimizes soil disturbance when pastures are renovated.
- These soils provide poor summer pasture.
- Soil slippage can affect fencing patterns, increase the cost of maintaining fences and buried water pipelines, and cause uneven slopes, which can affect equipment use and the grazing patterns of animals. Removing excess water can help to prevent the slippage.
- The rooting depth may be restricted by a dense soil layer.

Forestland
- Because of the slope, the hazard of erosion is increased if the soils are disturbed.
- The slope increases excavation costs, increases the hazard of erosion during construction of haul roads and log landings, creates unsafe operating conditions, reduces the operating efficiency of log trucks, can restrict the use of some mechanical planting equipment, and restricts the use of equipment during site preparation for planting and seeding.
- Soil slippage can interfere with the construction and use of haul roads and log landings and can create unsafe operating conditions.
- The content of clay in these soils is high enough that the soils become sticky when wet. The stickiness increases the cost of constructing haul roads and log landings and reduces the efficiency of mechanical planting equipment.

- Because of low soil strength, harvesting equipment may be difficult to operate and damage to the equipment may result. The low strength also increases the cost of constructing haul roads and log landings, can create unsafe conditions for log trucks, and can cause the formation of ruts, which result in unsafe conditions and damage to equipment.
- Rock fragments restrict the use of mechanical planting equipment.
- Uncontrolled burning can destroy organic matter on the surface of the soils.

Building sites
- Slippage and mass soil movement are management concerns. Areas that are subject to slippage are generally unsuited to building site development.

Septic tank absorption fields
- The restricted permeability of these soils limits the absorption and proper treatment of the effluent from septic systems.
- Because of the slope, special design and installation are needed for effluent distribution lines.

Local roads and streets
- Because of the slope, local roads and streets are difficult to design.

Ua—Udorthents, loamy

Map Unit Composition

Major components
Udorthents and similar soils: 65 to 90 percent
Urban land and similar areas: 10 to 35 percent

Component Description

Udorthents
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills, divides
Slope shape and hillslope position: Linear; summits
Parent material: Human reworked soil material
Slope: 0 to 25 percent
Restrictive feature: None
Drainage class: Well drained and moderately well drained
Land capability classification (nonirrigated): 4e

Udorthents consist of cut-and-fill material containing loamy material from a mixture of topsoil, subsoil, sand, or gravel where areas of natural soil were reworked and smoothed for highways, building sites, or similar uses. The natural soil has been altered to the point that soil identification is no longer possible.

Ud—Udorthents-Urban land complex

Map Unit Composition

Major components
Udorthents and similar soils: 50 to 75 percent
Urban land and similar areas: 25 to 50 percent

In some areas, each of these miscellaneous areas is large enough to be mapped separately, but because of present and predicted land use, they are mapped as one unit.

Component Descriptions

Udorthents
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills, divides
Slope shape and hillslope position: Linear; summits
Parent material: Human reworked soil material
Slope: 0 to 25 percent
Restrictive feature: None
Drainage class: Well drained and moderately well drained
Land capability classification (nonirrigated): Udorthents 4e; Urban land 8e

Udorthents consist of cut-and-fill material containing loamy material from a mixture of topsoil, subsoil, sand, or gravel where areas of natural soil were reworked and smoothed for highways, building sites, or similar uses. The natural soil has been altered to the point that soil identification is no longer possible.

Urban land
Urban land is primarily land covered by highways, commercial and industrial buildings, parking lots, and other urban structures. In places, the natural drainage pattern has been replaced by a system of ditches and storm drains.

Ur—Urban land

Map Unit Composition

Major components
Urban land and similar areas: 85 to 100 percent

Component Description

Urban land
Major land resource area: 133A—Southern Coastal Plain
Landform: Hills, divides
Slope shape and hillslope position: Linear; summits
Slope: 0 to 15 percent
Land capability classification (nonirrigated): 8e

Urban land is primarily land covered by highways, commercial and industrial buildings, parking lots, and other urban structures. In places, the natural drainage pattern has been replaced by a system of ditches and storm drains and little soil material remains.

W—Water

Map Unit Composition

Major components
Water and similar areas: 100 percent

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture (fig. 8); as rangeland and forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Figure 8.—A watering facility in an area of Providence silt loam. Facilities like this provide water for livestock, help to control livestock traffic in and out of creeks and ponds, and are a valuable part of an overall farm plan to improve water quality.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of gravel, sand, reclamation material, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited, somewhat limited,* and *very limited*. The suitability ratings are expressed as *well suited, moderately suited, poorly suited,* and *unsuited* or as *good, fair,* and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

In 2007, Henry County had about 92,084 acres of cropland, producing corn, soybeans, wheat, cotton, tobacco, vegetables, and fruit. The county ranked about 13th in Tennessee for total harvested acres of cropland. In addition, the county had more than 17,400 acres of pasture and hayland (USDA, 2007).

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed, and the system of land capability classification used by the Natural Resources Conservation Service is explained.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading "Detailed Soil Map Units." Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

The average yields per acre that can be expected of the principal crops under high level management are shown in table 5. In any given year, yields may be higher or lower than those indicated in the tables because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

Pasture yields are expressed in terms of animal unit months. An animal unit month (AUM) is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the yields tables are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small (fig. 9). The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Figure 9.—Vineyards, orchards, and truck crops offer landowners the opportunity to diversify away from traditional row crops, especially on marginal agricultural lands.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (USDA, 1961).

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e, w, s,* or *c,* to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c,* used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w, s,* or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2e-4 and 3e-6. These units are not given in all soil surveys.

The capability classification of the soils in this survey area is given in the section “Detailed Soil Map Units” and in the yields tables.

Prime Farmland

Table 6 lists the map units in the survey area that are considered prime farmland. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of prime farmland, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

For some soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

Forestland Management and Productivity

This section written with assistance from Barry Hart, ecological site inventory specialist, Natural Resources Conservation Service.

Prior to settlement, the vegetation of Henry County was most likely a mosaic of oak–hickory forests, mixed hardwood forests, and woodland–prairie openings (Braun, 1950). The woodland–prairie openings, also known as the “Barrens,” were principally associated with the Jackson Plain Prairie and Barrens of the Jackson Purchase area of western Kentucky. Pockets of prairie barrens interspersed among groves of trees extended across the northwestern and north-central portions of the county (NatureServe, 2006). Statistics and analysis of the National Land Cover Database (Fry et al., 2011) indicate that about 52 percent of Henry County is currently forested (USDA–NASS, 2011). The existing forest cover in the county includes 46 percent upland deciduous (hardwood), 4 percent woody wetlands, and 3 percent evergreen (primarily planted pine plantations).

Geographically, Henry County straddles the boundaries and convergence of three distinct ecoregions: the Interior Plateau, in the eastern and northeastern parts of the county; the Mississippi Valley Loess Plains, in the northwestern and north-central parts of the county; and the Southeastern Plains, in the southwestern, central, and southeastern parts of the county (US-EPA, 1997). Characteristics of the three ecoregions are distinctly expressed in the diversity of soils, soil parent material, and types of vegetation produced. Forest communities and ecological systems indicative of each ecoregion converge, overlap, and meld within the county's political boundary. The convergence of the three ecoregions coupled with complex local conditions and a long history of disturbance (i.e., intensive land use practices and soil erosion) create challenges to classifying the vegetation communities (NatureServe, 2006). Although forest associations that are neatly compartmentalized within their respective ecoregion (or "floristic region" as described by Shanks, 1958) are expected, the tree species are more homogenized into general forest types across boundaries of ecoregions and are distributed throughout the county. Such characteristics may reflect that the Henry County area is within a transitional zone of regional vegetation types. Braun (1950) refers to the transitional zone as the Western Mesophytic Forest Region.

The composition of the upland deciduous forests in the county varies with respect to topography, aspect, moisture, and degree of disturbance. In general, the oak-hickory forest type represents the prevailing condition among the driest sites, which commonly include the upper-most slopes, ridgetops, hilltops, and exposed slopes (i.e., south-, southwest-, and southeast-facing slopes). Forest stands throughout the dry uplands are commonly dominated by oaks. Characteristic species include southern red oak, post oak, black oak, blackjack oak, scarlet oak, and white oak. Canopy associates include mockernut hickory, pignut hickory, sweetgum, sourwood, and black gum. Yellow-poplar and American beech can become associates where moisture content increases. In a few places, individual trees or small patches or stands of pine are interspersed among the oak-dominated ridges and upper slopes. The pines are commonly loblolly pine and, to a lesser extent, Virginia pine. The moister, lower slopes, footslopes, and narrow drains support species commonly associated with mesophytic systems and associations. Species characteristic of these landscape positions include yellow-poplar, sugar maple, white oak, northern red oak, American beech, sweetgum, black gum, elm, and ash with black walnut and cherrybark oak commonly occurring as important canopy components (Chester and Ellis, 1989; Heineke, 1989; and NatureServe, 2006).

Woody wetlands in Henry County are represented by a variety of forest communities that formed due to distinct flooding cycles, ponding duration, and/or landscape position. The broad category of woody wetlands includes such forest types as swamp forests, flood plain (bottomland hardwood) forests, and linear patches or stretches of wetland forest that commonly form corridors along meandering, low gradient streams. In Henry County, these forest types are generally concentrated on the flood plains along the Big Sandy River, North Fork Obion River, Middle Fork Obion River, Blood River, several large creeks, West Sandy Creek embayment, and embayment heads on Kentucky Reservoir (Tennessee River). The swamp forests are the wettest sites. They generally support bald cypress, water tupelo, overcup oak, river birch, black willow, and some swamp gum. Flood plain forests commonly support complex communities due to subtle relief (e.g., micro-highs or depressions) across an otherwise flat landscape. Such micro-topography creates conditions ranging from very wet to much drier. The large range in conditions is suitable for supporting a large range of species. Trees typically found across the flood plains and along corridors of low-gradient streams include willow oak, cherrybark oak, swamp chestnut oak, yellow-poplar, sweetgum, swamp gum, red maple, sycamore, green ash, sugarberry, and elm (NatureServe, 2006).

Excluding the limited number of loblolly pine and Virginia pine interspersed across the uplands, the evergreen forests in the county are generally represented by planted stands of loblolly pine. Planted pine stands are distributed throughout the county with the largest concentration in the eastern half of the county. Although a few larger stands exist, most stands occur as small patches or blocks and generally occupy 200 acres or less (USDA–NASS, 2011).

The forest products industry has been an important component to the economy of the county for over 100 years (USDA, 1958). Commercially valuable trees occur throughout the county and include such sought-after species as white oak, red oak, swamp chestnut oak, cherrybark oak, yellow-poplar, black walnut, ash, elm, and loblolly pine.

The tables described in this section can help forest owners or managers plan the use of soils for wood crops. They show the potential productivity of the soils for wood crops and rate the soils according to the limitations that affect various aspects of forestland management.

Forestland Productivity

In table 7, the *potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forestland Management

In tables 8a through 8e, interpretive ratings are given for various aspects of forestland management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified aspect of forestland management. *Well suited* indicates that the soil has features that are favorable for the specified management aspect and has no limitations. Good performance can be expected, and little or no maintenance is needed. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified management aspect. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. *Poorly suited* indicates that the soil has one or more properties that are unfavorable for the specified management aspect. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. *Unsuited* indicates that the expected performance of the soil is unacceptable for the specified management aspect or that extreme measures are needed to overcome the undesirable soil properties.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

Rating class terms for fire damage and seedling mortality are expressed as *low, moderate,* and *high*. Where these terms are used, the numerical ratings indicate gradations between the point at which the potential for fire damage or seedling mortality is highest (1.00) and the point at which the potential is lowest (0.00).

The paragraphs that follow indicate the soil properties considered in rating the soils. More detailed information about the criteria used in the ratings is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

Table 8a

For *limitations affecting construction of haul roads and log landings*, the ratings are based on slope, flooding, permafrost, plasticity index, the hazard of soil slippage, content of sand, the Unified classification, rock fragments on or below the surface, depth to a restrictive layer that is indurated, depth to a water table, and ponding. The limitations are described as slight, moderate, or severe. A rating of *slight* indicates that no significant limitations affect construction activities, *moderate* indicates that one or more limitations can cause some difficulty in construction, and *severe* indicates that one or more limitations can make construction very difficult or very costly.

The ratings of *suitability for log landings* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The soils are described as well suited, moderately suited, or poorly suited to use as log landings.

Ratings in the column *soil rutting hazard* are based on depth to a water table, rock fragments on or below the surface, the Unified classification, depth to a restrictive layer, and slope. Ruts form as a result of the operation of forest equipment. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that the soil is subject to little or no rutting, *moderate* indicates that rutting is likely, and *severe* indicates that ruts form readily.

Table 8b

Ratings in the column *hazard of off-road or off-trail erosion* are based on slope and on soil erodibility factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance. The hazard is described as slight, moderate, severe, or very severe. A rating of *slight* indicates that erosion is unlikely under ordinary climatic conditions; *moderate* indicates that some erosion is likely and that erosion-control measures may be needed; *severe* indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and *very severe* indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Ratings in the column *hazard of erosion on roads and trails* are based on the soil erodibility factor K, slope, and content of rock fragments. The ratings apply to unsurfaced roads and trails. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that little or no erosion is likely; *moderate* indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and *severe* indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Ratings in the column *suitability for roads (natural surface)* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The ratings indicate the suitability for using the natural surface of the soil for roads. The soils are described as well suited, moderately suited, or poorly suited to this use.

Table 8c

Ratings in the columns *suitability for hand planting* and *suitability for mechanical planting* are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, moderately suited, poorly suited, or unsuited to these methods of planting. It is assumed that necessary site preparation is completed before seedlings are planted.

Ratings in the column *suitability for use of harvesting equipment* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, and ponding. The soils are described as well suited, moderately suited, or poorly suited to this use.

Table 8d

Ratings in the column *suitability for mechanical site preparation (surface)* are based on slope, depth to a restrictive layer, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 1 foot is considered in the ratings.

Ratings in the column *suitability for mechanical site preparation (deep)* are based on slope, depth to a restrictive layer, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 3 feet is considered in the ratings.

Table 8e

Ratings in the column *potential for damage to soil by fire* are based on texture of the surface layer, content of rock fragments and organic matter in the surface layer, thickness of the surface layer, and slope. The soils are described as having a low, moderate, or high potential for this kind of damage. The ratings indicate an evaluation of the potential impact of prescribed fires or wildfires that are intense enough to remove the duff layer and consume organic matter in the surface layer.

Ratings in the column *potential for seedling mortality* are based on flooding, ponding, depth to a water table, content of lime, reaction, salinity, available water capacity, soil moisture regime, soil temperature regime, aspect, and slope. The soils are described as having a low, moderate, or high potential for seedling mortality.

Recreational Development

Henry County is ideally situated for a wide variety of outdoor recreational activities. Kentucky Lake, which is along the eastern side of the county, is the focal point for numerous aquatic recreational activities, including boating, swimming, skiing, tubing, and fishing. At more than 160,000 square acres, Kentucky Lake has the largest surface area of any manmade lake in the eastern United States. The lake is the location for numerous fishing tournaments and draws sport fishermen from all over the country (Lake Productions, 2012).

Bordering the lake in the northeastern part of the county is Paris Landing State Resort Park. The park offers excellent hiking, boating, picnicking, and camping opportunities as well as cabins and beautiful views of Kentucky Lake.

Also bordering the lake is the Tennessee National Wildlife Refuge. The refuge is a popular bird watching destination with opportunities to see many migratory birds and birds of prey, including the bald eagle (USDI–US-FWS, 2012).

Hunting is also an important recreational activity in the county. Deer, turkey, duck, and raccoon are the most popular game.

In tables 9a and 9b, the soils of the survey area are rated according to limitations that affect their suitability for recreational development. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in these tables can be supplemented by other information in this survey, for example, interpretations for dwellings without basements, for local roads and streets, and for septic tank absorption fields.

Table 9a

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Table 9b

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

Wildlife Habitat

This section written with assistance from Michael E. Zeman, state biologist, Natural Resources Conservation Service.

Wildlife is an important natural resource in the county, providing a source of revenue through such recreational opportunities as sport hunting, photography, and fishing. Popular game species include bobwhite quail, whitetail deer, eastern wild turkey, cottontail rabbit, mourning dove, gray squirrel, and fox squirrel.

The whitetail deer is the most popular game animal in the county. Deer populations are high and have grown considerably over the past 50 years. Harvest records from the Tennessee Wildlife Resources Agency (TWRA) indicate that about 250 deer were harvested in 1963 and about 4,950 were harvested in 2009 (TWRA, 2010). The highest populations of deer in the county likely occur where hardwood ridges of mixed white oak and red oak are interspersed with grain crops, cropland fields that utilize winter covers of wheat or cereal ryes, or grasslands managed with clovers.

The eastern wild turkey was essentially eliminated from the county by the 1950s but has been reintroduced. Populations are now large enough to allow hunting due to the TWRA restoration program and management of the habitat. Nearly 800 birds were harvested in 2009. The eastern wild turkey was once thought to be dependent on large expanses of late-successional, mature hardwoods but is actually well adapted to a mix of early-successional shrublands, open lands, and mature hardwoods.

Small game species recognized as “edge” species and early-successional species, such as bobwhite quail, mourning dove, and cottontail rabbit, have low to moderate populations in the county. The forestland in Henry County generally trends toward mature, older growth stands (Tennessee Department of Agriculture, 2012). The highest concentrations of bobwhite quail are in areas where cropland is adjacent to brushy fence rows or idle areas of native warm-season grasses, low shrubs, and “hard seed” producing annual plants. Mourning dove is both a resident and a migrant. The highest numbers occur in the fall around grain-producing crop fields. The cottontail rabbit is most common around agricultural areas intermixed with low brushy cover and native warm-season grasses.

Three species of squirrels are in the county. All occur in good numbers. Both the gray squirrel and the primarily nocturnal southern flying squirrel occur in good to excellent numbers throughout the hardwood forests of the county. The fox squirrel is generally along woodland edges and woody fence rows near agricultural areas. Squirrel populations can vary significantly from year to year depending on the production of hard mast, such as acorns, hickory nuts, and beechnuts.

The number of waterfowl in the county is only moderate due to the relatively low extent of wetlands and agricultural fields and the distance from the Mississippi flyway. The county is, however, bordered on the east by Kentucky Lake. The Big Sandy Wildlife Management Area (2,370 acres), the West Sandy Wildlife Management Area (4,319 acres), and the Tennessee National Wildlife Refuge (21,348 acres) are primarily bottomlands adjacent to Kentucky Lake. They are managed and best noted for providing habitat for waterfowl and other aquatic wildlife. They are also managed to provide outdoor recreational opportunities for the public (TWRA, 2012). These areas are recognized for their habitat due to the quality of the management. The most common species migrating through include wood duck, mallard, and bluewing teal. These species utilize Kentucky Lake, farm ponds, and small lakes for resting and roosting. Where nesting habitat is available, wood duck and resident greater Canada goose frequently use farm ponds for nesting in the spring across the county.

Several species of furbearers are in the county. Wetland furbearers include mink, muskrat, and beaver. They can be found in moderate numbers along sluggish streams, small lakes, and farm ponds. Upland furbearers are common throughout the county and include bobcat, opossum, raccoon, gray fox, striped skunk, and coyote.

Many non-game species occur in abundance throughout the county. Different species of songbirds, both resident and migratory, are associated with different plant communities. Common woodland birds include the Carolina chickadee, tufted titmouse, pileated woodpecker, and warblers. Common openland birds include robins, meadowlarks, and various sparrows. Common birds of prey include the red-tailed hawk, sparrow hawk, barred owl, and screech owl. Common reptiles and amphibians include the eastern box turtle, rat snakes, copperhead snakes, bullfrogs, and woodland salamanders. Common small mammals include hispid cotton rat, moles, voles, shrews, and other rodents. The relative abundance of non-game species is dependent upon the type and quality of the habitat available.

State and federally listed threatened or endangered wildlife species that may occur in the county include several species of fish, such as the firebelly darter and piebald madtom; reptiles, such as the northern pine snake and alligator snapping turtle; and several species of plants. Commonly, imperiled plant species require very specific soil conditions, such as wetness or rock outcroppings, for the survival of the species. In Henry County, several listed plant species are associated with hydric or wet soils. Bald eagles sometimes nest in the county along Kentucky Lake.

The county has many constructed livestock ponds that also provide recreational value from the stocking of fish. Commonly stocked species include largemouth bass, bluegill sunfish, redear sunfish, and channel catfish. The water in the ponds is typically acidic due to the pH of the soil. The production of fish may therefore be limited. Few privately owned ponds in the county are intensively managed for high production of fish. Almost all of the soils in the county are very limited for pond construction due to steepness or seepage problems. The better upland soils for pond construction are the Chickasaw, Dulac, Falkner, Luverne, and Tippah soils in areas that have a slope of less than 12 percent slope and are not shallow over bedrock.

Henry County has many miles of warm-water streams. Major streams in the county and tributaries to the Tennessee River/Kentucky Lake include West Sandy Creek, Holly Fork, and the North Fork of the Obion River, which drains to the Mississippi River. These and other streams, ponds, and lakes provide hundreds of acres of aquatic habitat and support populations of largemouth bass, smallmouth bass, rock bass, bluegill, green sunfish, channel catfish, and several species of minnows and darters.

Excluding artificial wetlands, such as shallow water zones of upland farm ponds, the extent of wetlands is moderate in the county. Several hydric soil series, such as Bibb, Rosebloom, and Routon soils, are in the county. About 22,000 acres of soils, or about 5.4 percent of the county land base, is mapped as hydric. In a natural state, the wetland soils of the county would typically be forested. Many of these areas were converted to pasture or cropland years ago. The areas of remaining bottomland hardwoods provide some of the most productive wildlife habitat in the county. Bottomland hardwoods are also considered valuable for improving water quality of streams. These areas remove nutrients and trap sediments from upland runoff, lower water temperatures, and provide leaf letter, which serves as the foundation for aquatic food chains.

Conservation practices can provide or improve wildlife habitat. On cropland, planned crop rotations and crop residue management provide food and winter cover for many species of wildlife. On grasslands, deferred and rotational grazing of livestock and fencing help to protect food plots, nesting cover, and streambanks. The protection of streambanks improves fish habitat. Field borders, filter strips, and forested riparian buffers along streams help protect water quality and provide food, cover, and travel lanes for many species of wildlife. Native warm-season grasses in field borders and filter strips can provide excellent nesting and other benefits for wildlife (TWRA, 2012). Thinning of forestlands can be selective to protect den trees and the better mast-producing trees. Other practices that can improve wildlife habitat include upland wildlife habitat management, wildlife wetland habitat management, early successional habitat development and management, fish pond management, prescribed grazing, access control, and forest stand improvement.

Conversely, some conservation practices can be harmful to wildlife if improperly applied or maintained. Those most common are indiscriminate burning, indiscriminate use of pesticides, heavy grazing, complete mowing during the nesting season, clean fall plowing, extensive clearcutting of timber, draining and clearing of wetlands, and the removal of den trees and all mast-producing trees.

Technical assistance in the planning or application of wildlife conservation practices can be obtained from the Natural Resources Conservation Service; the University of Tennessee, Agricultural Extension Service; the Tennessee Wildlife Resources Agency; and the Tennessee Division of Forestry.

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created or improved by planting appropriate vegetation, by maintaining the existing cover, or by promoting the natural establishment of desirable plants.

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading “Soil Properties.”

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, reclamation material, roadfill, and topsoil; plan structures for water management; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance (fig. 10). Tables 10a and 10b show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil

Figure 10.—The pines on the left of this fescue-clover hayfield were planted to provide a sound barrier between a proposed industrial site and a residential area. Careful land planning can help minimize the impact where industrial use meets residential use.

reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Table 10a

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Table 10b

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Sanitary Facilities

Tables 11a and 11b show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Table 11a

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

Table 11b

A *trench sanitary landfill* is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an *area sanitary landfill*, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

Construction Materials

Tables 12a and 12b give information about the soils as potential sources of gravel, sand, reclamation material, roadfill, and topsoil. Normal compaction, minor processing, and other standard construction practices are assumed.

Table 12a

Gravel and *sand* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In the table, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of gravel or sand are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains gravel or sand, the soil is considered a likely source regardless of thickness. The assumption is that the gravel or sand layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good, fair,* or *poor* as potential sources of gravel and sand. A rating of *good* or *fair* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The number 0.00 indicates that the layer is a poor source. The number 1.00 indicates that the layer is a good source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

Table 12b

In the table, the rating class terms are *good, fair,* and *poor*. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of reclamation material, roadfill, and topsoil. The lower the number, the greater the limitation.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Water Management

Table 13 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow (fig. 11). Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more

Figure 11.—A lake built under the Watershed Program of the Natural Resource Conservation Service. Such lakes help to control sediment, recharge ground water, and protect downstream areas from flooding. They also provide an aesthetic point of interest and opportunities for recreation.

above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Hydric Soils

In this section, hydric soils are defined and described and the hydric soils in the survey area are listed.

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for each of the characteristics must be met for areas to be identified as wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). The criteria are used to identify a phase of a soil series that normally is also a hydric soil. The criteria used are selected estimated soil properties that are described in “Soil Taxonomy” (Soil Survey Staff, 1999) and “Keys to Soil Taxonomy” (Soil Survey Staff, 2006) and in the “Soil Survey Manual” (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period to be considered hydric, they generally exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils in this survey area are specified in “Field Indicators of Hydric Soils in the United States” (Hurt and others, 2006).

The following map units meet the definition of hydric soils and, in addition, have at least one of the hydric soil indicators. This list can help in planning land uses; however, onsite investigation is required to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2006).

Ak—Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded
Ao—Arkabutla-Rosebloom complex, 0 to 2 percent slopes, frequently flooded
Cn—Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded
CVA—Chenneby, Enville, and Arkabutla soils, 0 to 2 percent slopes, frequently flooded
Ea—Enville silt loam, 0 to 2 percent slopes, occasionally flooded
Eb—Enville-Bibb complex, 0 to 2 percent slopes, frequently flooded
KrA—Kurk silt loam, 0 to 3 percent slopes
Lo—Lobelville silt loam, 0 to 3 percent slopes, occasionally flooded
RO—Rosebloom and Bibb soils, 0 to 2 percent slopes, frequently flooded
RtA—Routon silt loam, 0 to 2 percent slopes
RuA—Routon silt loam, 0 to 2 percent slopes, ponded

Map units that are made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering properties, physical and chemical properties, and pertinent soil and water features.

Engineering Properties

Table 14 gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. “Loam,” for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, “gravelly.” Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

Physical Soil Properties

Table 15 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In the table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In the table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In the table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at $^{1}/_{3}$- or $^{1}/_{10}$-bar (33- or 10-kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots.

Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates in the table are expressed in terms of inches per hour. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at $^{1}/_{3}$- or $^{1}/_{10}$-bar (33- or 10-kPa) moisture tension and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In the table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the “National Soil Survey Handbook,” which is available in local offices of the Natural Resources Conservation Service or on the Internet.

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Soil Properties

Table 16 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Salinity is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Sodium adsorption ratio (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced permeability and aeration, and a general degradation of soil structure.

Water Features

Table 17 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. The table indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The table indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Soil Features

Table 18 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness of the restrictive layer, which significantly affects the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate,* or *high,* is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate,* or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 2006). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Ultisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udults (*Ud*, meaning humid, plus *ult*, from Ultisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludults (*Hapl*, meaning minimal horizonation, plus *udult*, the suborder of the Ultisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludults.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, siliceous, subactive, thermic Typic Hapludults.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. An example is the Smithdale series.

Table 19 indicates the order, suborder, great group, subgroup, and family of the soil series in the survey area.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each series. A pedon, a small three-dimensional area of soil, that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the “Soil Survey Manual” (Soil Survey Division Staff, 1993) and in the “Field Book for Describing and Sampling Soils” (Schoeneberger and others, 2002). Many of the technical terms used in the descriptions are defined in “Soil Taxonomy” (Soil Survey Staff, 1999) and in “Keys to Soil Taxonomy” (Soil Survey Staff, 2006). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

In some instances, the typical pedon for a series is located outside the survey area. The selection of a typical pedon is based on the range of characteristics of the series as it occurs throughout a particular major land resource area. The Smithdale series, for example, is common in MLRA 133A (Southern Coastal Plains), which extends across several southern states. The typical pedon for the Smithdale series is in Montgomery County, Mississippi. The soil properties of this pedon are representative of the Smithdale soils that occur not only in Mississippi but throughout MLRA 133A.

Arkabutla Series

Major land resource area: 134—Southern Mississippi Valley Loess
Geomorphic setting: Flood plains
Position on landform: Concave or linear areas
Parent material: Silty alluvium
Drainage class: Somewhat poorly drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 2 percent
Taxonomic classification: Fine-silty, mixed, active, acid, thermic Fluventic Endoaquepts

Associated Soils

- Well drained Cascilla soils, which are in the higher positions
- Chenneby soils, which are in the slightly higher positions
- Iuka soils, which are in positions similar to those of the Arkabutla soils and are sandier
- Lobelville soils, which are in positions similar to those of the Arkabutla soils and contain more gravel
- Rosebloom soils, which are in the lower positions and are poorly drained

Typical Pedon

Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded; Henry County, Tennessee; Cottage Grove, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 26 minutes, 51 seconds N. and long. 88 degrees, 28 minutes, 5.2 seconds W.; NAD83.

A—0 to 7 inches; brown (10YR 4/3) silt loam; moderate medium granular structure; very friable, nonsticky, nonplastic; common fine roots throughout; 5 percent fine faint irregular moderately cemented grayish brown (10YR 5/2) iron depletions in the matrix; strongly acid; clear smooth boundary.

Bw—7 to 17 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky structure; very friable, slightly sticky, slightly plastic; common fine roots throughout; 15 percent medium distinct irregular moderately cemented grayish brown (10YR 5/2) iron depletions in the matrix; 8 percent medium distinct dendritic moderately cemented yellowish brown (10YR 5/6) masses of oxidized iron on faces of peds; extent of redox concentrations decreases with depth; strongly acid; clear smooth boundary.

Bg1—17 to 25 inches; gray (10YR 5/1) silt loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine roots throughout; 12 percent medium distinct irregular moderately cemented dark yellowish brown (10YR 4/6) masses of oxidized iron on surfaces along root channels; 12 percent medium distinct irregular moderately cemented dark yellowish brown (10YR 4/6) masses of oxidized iron on faces of peds; 12 percent coarse distinct irregular moderately cemented dark yellowish brown (10YR 4/6) masses of oxidized iron on surfaces along root channels; 12 percent coarse distinct irregular moderately cemented dark yellowish brown (10YR 4/6) masses of oxidized iron on faces of peds; very strongly acid; clear smooth boundary.

Bg2—25 to 36 inches; gray (10YR 5/1) silty clay loam; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; 6 percent medium prominent irregular moderately cemented strong brown (7.5YR 4/6) masses of oxidized iron on faces of peds; 6 percent medium prominent irregular moderately cemented strong brown (7.5YR 4/6) masses of oxidized iron on surfaces along root channels; 6 percent coarse prominent irregular moderately cemented strong brown (7.5YR 4/6) masses of oxidized iron on faces of peds; 6 percent coarse prominent irregular moderately cemented strong brown (7.5YR 4/6) masses of oxidized iron on surfaces along root channels; very strongly acid; clear smooth boundary.

Cg1—36 to 55 inches; gray (10YR 5/1) silt loam; massive; loose; very strongly acid; clear smooth boundary.

Cg2—55 to 80 inches; gray (10YR 6/1) silt loam; massive; loose; 2 percent fine prominent irregular moderately cemented strong brown (7.5YR 4/6) masses of oxidized iron on surfaces along root channels; very strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 30 inches
Depth to bedrock: Greater than 30 inches
Reaction: Dominantly very strongly acid or strongly acid, except where the surface layer has been limed; very strongly acid to moderately acid in the Cg horizon

A horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 2 to 4
Texture—silt loam, loam, or silty clay loam

Bw horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2; hue of 10YR, value of 4 or 5, and chroma of 3 to 6 with few to many iron depletions with chroma 2 or less; or variegated in shades of brown, yellow, and gray
Texture—silty clay loam, loam, or silt loam

Bg horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 or less
Texture—silty clay loam, loam, or silt loam
Redoximorphic features—iron accumulations in shades of brown; few to many black and brown iron-manganese concretions

Cg horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 or less
Texture—silt loam, silty clay loam, loam, very fine sandy loam, or loamy sand
Redoximorphic features—iron accumulations in shades of brown

Armour Series

Major land resource area: 123—Nashville Basin
Geomorphic setting: Stream terraces
Position on hillslope: Convex or linear footslopes
Parent material: Silty alluvium
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 12 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Ultic Hapludalfs

Associated Soils

- Ennis and Pruitton soils, which are on flood plains
- Hawthorne, Sengtown, and Sugargrove soils, which are on uplands adjacent to the Armour soils
- Humphreys soils, which in the higher terrace positions and contain more gravel than the Armour soils

Typical Pedon

Armour silt loam, 0 to 3 percent slopes, rarely flooded; Benton County, Tennessee; Harmon Creek, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 11 minutes, 0.04 seconds N. and long. 87 degrees, 59 minutes, 17.01 seconds W.; NAD83.

Ap—0 to 9 inches; dark yellowish brown (10YR 4/4) silt loam; moderate fine granular and weak medium subangular blocky structure; very friable, nonsticky, nonplastic; common fine roots throughout; slightly acid; clear smooth boundary.

Bt1—9 to 36 inches; dark yellowish brown (10YR 4/6) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; fine roots between peds; fine moderate-continuity tubular pores; 5 percent faint clay films on faces of peds; slightly acid; gradual smooth boundary.

Bt2—36 to 58 inches; yellowish brown (10YR 5/6) silt loam; 5 percent medium faint irregular yellowish brown (10YR 5/4) mottles; friable, slightly sticky, slightly plastic; fine moderate-continuity tubular pores; 5 percent faint clay films on faces of peds; moderately acid; gradual smooth boundary.

Bt3—58 to 80 inches; yellowish brown (10YR 5/6) silt loam; friable, slightly sticky, slightly plastic; fine moderate-continuity tubular pores; 3 percent faint clay films on faces of peds; 5 percent medium distinct irregular pale brown (10YR 6/3) iron depletions in the matrix; 5 percent coarse distinct irregular pale brown (10YR 6/3) iron depletions in the matrix; moderately acid.

Range in Characteristics

Thickness of the solum: 40 to more than 80 inches
Depth to bedrock: Greater than 60 inches
Rock fragments: Dominantly 0 to 10 percent in the upper 40 inches and 0 to 35 percent below 40 inches; 0 to 60 percent in some pedons
Reaction: Moderately acid or strongly acid, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR or 7.5YR, value of 3 or 4, and chroma of 2 to 4
Texture—silt loam

Bt horizon:
Color—hue of 5YR, 7.5YR, or 10YR, value of 4 or 5, and chroma of 4 to 6

Texture—dominantly silt loam or silty clay loam, ranges to loam below a depth of 40 inches

BC and C horizons (where present):
Color—hue of 5YR, 7.5YR, or 10YR, value of 4 or 5, and chroma of 4 to 6
Texture—silt loam, silty clay loam, or loam

Arundel Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Divides
Position on hillslope: Linear backslopes and footslopes
Parent material: Clayey marine deposits
Drainage class: Well drained
Permeability class: Very slow
Soil depth class: Moderately deep to paralithic bedrock
Shrink-swell potential: Very high
Slope: 12 to 25 percent
Taxonomic classification: Fine, smectitic, thermic Typic Hapludults

Associated Soils

- Chickasaw and Luverne soils, which are deeper to bedrock than the Aurndel soils
- Dulac soils, which are in the less sloping positions and have a fragipan
- Tippah soils, which are in the less sloping positions and are moderately well drained

Typical Pedon

Arundel fine sandy loam in an area of Arundel-Chickasaw complex, 12 to 25 percent slopes, eroded, supporting hardwoods; Henry County, Tennessee; Paris, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 20 minutes, 50.23 seconds N. and long. 88 degrees, 17 minutes, 52.91 seconds W.; NAD83.

A—0 to 2 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; fine and medium roots throughout; strongly acid; clear smooth boundary.
BE—2 to 8 inches; light yellowish brown (10YR 6/4) loam; weak fine subangular blocky structure; very friable, slightly sticky, slightly plastic; fine roots between peds; strongly acid; abrupt smooth boundary.
Bt1—8 to 19 inches; yellowish red (5YR 4/6) channery clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; medium roots between peds; fine tubular pores; 20 percent distinct yellowish red (5YR 5/6) clay films on faces of peds; 30 percent claystone channers; strongly acid; clear smooth boundary.
Bt2—19 to 30 inches; yellowish red (5YR 4/6) clay; light reddish brown (5YR 6/3) mottles; moderate fine angular blocky structure; very firm, very sticky, very plastic; medium roots between peds; fine tubular pores; 50 percent distinct yellowish red (5YR 5/6) clay films on faces of peds; strongly acid; abrupt smooth boundary.
Cr—30 to 80 inches; bedrock.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to bedrock: 20 to 40 inches to soft claystone bedrock
Rock fragments: 0 to more than 20 percent, by volume, fragments of siltstone or sandstone ranging from 0.2 to 20 centimeters across
Reaction: Extremely acid to strongly acid

A horizon:

Color—hue of 10YR, value of 3 to 6, and chroma of 1 to 3

Texture—silt loam, loam, sandy loam, fine sandy loam, loamy sand, loamy fine sand, or the gravelly analogs of these textures

E or BE horizon:

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6

Texture—loamy sand, sandy loam, loam, silt loam, or the gravelly analogs of these textures

Bt horizon:

Color—hue of 2.5YR, 5YR, 7.5YR, 10YR, or 2.5Y, value of 4 to 6, and chroma of 3 to 6; few or common mottles in shades of brown or red in some pedons

Texture (fine-earth fraction)—silty clay loam, clay loam, silty clay, or clay

Cr layer:

Type of bedrock—alternating layers or thick beds of sandstone, siltstone, or claystone; in fresh exposures, it can be cut with a spade.

Bibb Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Flood plains
Position on landform: Linear areas
Parent material: Coarse-loamy alluvium
Drainage class: Poorly drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 2 percent
Taxonomic classification: Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents

Associated Soils

- Enville soils, which are in the higher positions and are somewhat poorly drained
- Silty Rosebloom soils, which are in positions similar to those of the Bibb soils

Typical Pedon

Bibb silt loam in an area of Rosebloom and Bibb soils, 0 to 2 percent slopes, frequently flooded; Henry County, Tennessee; Osage, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 19 minutes, 49.9 seconds N. and long. 88 degrees, 28 minutes, 8.3 seconds W.; NAD83.

A—0 to 3 inches; very dark gray (10YR 3/1) silt loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and medium and few coarse roots throughout; moderately acid; abrupt smooth boundary.

Cg1—3 to 8 inches; grayish brown (10YR 5/2) and brown (10YR 5/3) stratified layers of sandy loam and silt loam; massive; loose, nonsticky, nonplastic; common fine and medium and few coarse roots throughout; few fine tubular pores; moderately acid; clear smooth boundary.

Cg2—8 to 18 inches; gray (10YR 5/1) stratified layers of loamy sand, fine sandy loam, loam, and silt loam, averaging sandy loam; massive; loose, nonsticky, nonplastic; few fine roots throughout; few fine tubular pores; strongly acid; gradual smooth boundary.

Cg3—18 to 22 inches; gray (10YR 5/1) silt loam; massive; loose, nonsticky, nonplastic;

few fine roots throughout; 1 percent fine distinct irregular iron-manganese masses in the matrix; strongly acid; abrupt smooth boundary.

Cg4—22 to 50 inches; light brownish gray (10YR 6/2) loamy sand, sandy loam; single grain; loose, nonsticky, nonplastic; strongly acid; clear smooth boundary.

Cg5—50 to 80 inches; gray (10YR 5/1) loam; massive; loose, nonsticky, nonplastic; 1 percent fine distinct irregular iron-manganese masses in the matrix; strongly acid.

Range in Characteristics

Depth to bedrock: Greater than 60 inches
Rock fragments: Typically, 0 to 10 percent rounded gravel throughout; 0 to 35 percent rounded gravel in thin strata below a depth of 40 inches in some pedons
Reaction: Extremely acid to strongly acid, except were limed

A horizon:
Color—hue of 7.5YR or 10YR, value of 2 to 5, and chroma of 1 to 3
Texture—sand, loamy sand, loamy fine sand, fine sandy loam, sandy loam, loam, or silt loam

Cg horizon:
Color—hue of 10YR to 5BG, value of 3 to 7, and chroma of 2 or less
Texture (upper part)—sandy loam, fine sandy loam, loam, silt loam, or stratified with these textures
Texture (lower part)—sandy loam, fine sandy loam, loam, silt loam, or stratified with these textures or sand, loamy sand, or loamy fine sand

Brandon Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Hills
Position on hillslope: Concave, convex, or linear summits, shoulders, and backslopes
Parent material: Loess over gravelly fluviomarine deposits
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 5 to 60 percent
Taxonomic classification: Fine-silty, mixed, semiactive, thermic Typic Hapludults

Associated Soils

- Lax soils, which are in positions similar to those of the Brandon soils and have a fragipan
- Providence soils, which are in the less convex positions and have a fragipan
- Saffel soils, which contain more gravel than the Brandon soil
- Smithdale soils, which are on side slopes adjacent to the Brandon soils and contain less gravel

Typical Pedon

Brandon silt loam, 5 to 12 percent slopes, eroded; Henry County, Tennessee; Buchanan, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 27 minutes, 41.2 seconds N. and long. 88 degrees, 12 minutes, 50.7 seconds W.; NAD83.

A—0 to 1 inch; brown (10YR 4/3) silt loam; weak fine granular structure; very friable, nonsticky, nonplastic; common fine and common medium roots throughout; very strongly acid; abrupt smooth boundary.

EB—1 to 7 inches; yellowish brown (10YR 5/4) silt loam; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; common fine and common medium roots throughout; few fine tubular pores; extremely acid; clear smooth boundary.

Bt1—7 to 20 inches; yellowish red (5YR 4/6) silty clay loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and common medium roots throughout; common fine tubular pores; very strongly acid; clear smooth boundary.

Bt2—20 to 29 inches; reddish brown (5YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and few medium roots throughout; common medium tubular pores; strongly acid; clear smooth boundary.

2Bt3—29 to 36 inches; strong brown (7.5YR 4/6) gravelly silt loam; strong medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and few medium roots throughout; common fine tubular pores; 20 percent rounded chert gravel; very strongly acid; clear smooth boundary.

2Bt4—36 to 80 inches; yellowish red (5YR 4/6) very gravelly loam; strong medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine roots around fragments; few fine tubular pores; 5 percent discontinuous distinct light yellowish brown (10YR 6/4) silt coats on faces of peds; 50 percent rounded chert gravel; strongly acid.

Range in Characteristics

Thickness of the solum: 20 to more than 48 inches
Depth to bedrock: Greater than 60 inches
Rock fragments: 0 to 5 percent in the A and Bt horizons and 30 to 80 percent in the 2Bt horizon
Reaction: Strongly acid or very strongly acid

A horizon:
Color—hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 1 to 4
Texture—silt loam; or silty clay loam in severely eroded areas

BE or EB horizon (where present):
Color—hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 4 to 6
Texture—silt loam

Bt horizon:
Color—hue of 7.5YR or 5YR, value of 4 or 5, and chroma of 4 to 6
Texture—silt loam or silty clay loam

2Bt horizon:
Color—commonly shades of red, brown, or yellow
Texture (fine-earth fraction)—silt loam, loam, clay loam, sandy clay loam, or fine sandy loam

Calloway Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Divides
Position on hillslope: Concave summits and footslopes
Parent material: Loess
Drainage class: Somewhat poorly drained
Permeability class: Slow
Soil depth class: Shallow to a fragipan
Shrink-swell potential: Low

Slope: 0 to 5 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Aquic Fraglossudalfs

Associated Soils

- Grenada and Loring soils, which are in the higher positions and are moderately well drained
- Kurk soils, which are in positions similar to those of the Calloway soils and do not have a fragipan
- Routon soils, which are in depressions and are poorly drained

Typical Pedon

Calloway silt loam, 2 to 5 percent slopes, eroded, in an area of row crops; Henry County, Tennessee; Cottage Grove, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 28 minutes, 31.56 seconds N. and long. 88 degrees, 29 minutes, 59.08 seconds W.; NAD83.

Ap—0 to 6 inches; brown (10YR 4/3) silt loam; moderate medium and fine granular structure; friable, slightly sticky, slightly plastic; moderately acid; clear smooth boundary.

Bt1—6 to 11 inches; brown (10YR 5/3) silt loam; moderate coarse and medium subangular blocky structure; firm, slightly sticky, slightly plastic; common fine roots throughout; many fine tubular pores; 5 percent medium distinct irregular light brownish gray (10YR 6/2) iron depletions; 1 percent fine distinct irregular yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; moderately acid; clear smooth boundary.

Bt2/Eg—11 to 21 inches; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine roots throughout; many fine tubular pores; strongly acid; clear wavy boundary.

Bt2 part—brown (10YR 5/3) silt loam; 10 percent medium faint irregular grayish brown (10YR 5/2) iron depletions; 5 percent medium distinct irregular yellowish brown (10YR 5/6) masses of oxidized iron in the matrix.

Eg part—light gray (10YR 7/2) silt loam; 15 percent fine distinct irregular yellowish brown (10YR 5/4) mottles.

Btx1—21 to 34 inches; brown (10YR 5/3) silty clay loam; moderate coarse prismatic structure parting to moderate medium and coarse angular and subangular blocky; firm, slightly sticky, slightly plastic; few fine roots in cracks; many fine vesicular pores; 22 percent continuous distinct grayish brown (10YR 5/2) clay films on surfaces along pores; 5 percent medium faint irregular grayish brown (10YR 5/2) iron depletions; 5 percent medium distinct irregular yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; strongly acid; clear smooth boundary.

Btx2—34 to 80 inches; yellowish brown (10YR 5/6) silt loam; moderate coarse prismatic structure parting to moderate medium and coarse angular and subangular blocky; firm, slightly sticky, slightly plastic; few fine roots in cracks; common fine vesicular pores; 5 percent medium distinct irregular grayish brown (10YR 5/2) iron depletions; strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 60 inches
Depth to bedrock: Greater than 60 inches
Depth to fragipan: 14 to 38 inches
Reaction: Very strongly acid to moderately acid in the upper part of the solum; strongly acid or moderately acid in the lower part

Ap horizon:
Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4
Texture—silt or silt loam

Bt horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 4 to 6
Texture—silt loam
Redoximorphic features—iron or clay depletions in shades of brown or gray; iron accumulations in shades of yellow or brown

Bt/Eg or Eg/Bt horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 4 to 6
Texture—silt loam or silty clay loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of yellow or brown

Btx horizon:
Color—hue of 10YR or 2.5Y, value of 5, and chroma of 2 to 6
Texture—silt loam or silty clay loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of yellow or brown

Cascilla Series

Ma*jor land resource area:* 134—Southern Mississippi Valley Loess
Geomorphic setting: Flood plains
Position on landform: Linear areas
Parent material: Silty alluvium over loamy alluvium
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 3 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Fluventic Dystrudepts

Associated Soils

- Arkabutla and Chenneby soils, which are in the lower positions
- Iuka soils, which are in the lower, sandier positions
- Ochlockonee soils, which are on levees

Typical Pedon

Cascilla silt loam, 0 to 3 percent slopes, rarely flooded; Henry County, Tennessee; Osage, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 15 minutes, 19.65 seconds N. and long. 88 degrees, 26 minutes, 48.18 seconds W.; NAD83.

Ap—0 to 8 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium granular structure; friable, nonsticky, nonplastic; many fine and few medium roots throughout; slightly acid; clear smooth boundary.
Bw1—8 to 15 inches; yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; many fine and few medium roots throughout; few fine tubular pores; moderately acid; clear smooth boundary.
Bw2—15 to 24 inches; dark brown (10YR 3/3) silt loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; common fine and few medium roots throughout; common fine tubular pores; 1 percent medium distinct irregular

yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; strongly acid; abrupt smooth boundary.

Bw3—24 to 35 inches; yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine roots throughout; few fine tubular pores; 2 percent medium faint irregular yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; strongly acid; clear smooth boundary.

Bw4—35 to 49 inches; brown (10YR 5/3) silt loam; weak coarse subangular blocky structure; friable, nonsticky, nonplastic; few fine roots throughout; few fine tubular pores; 2 percent fine distinct irregular yellowish brown (10YR 5/6) iron-manganese masses in the matrix; strongly acid; gradual smooth boundary.

BC—49 to 65 inches; yellowish brown (10YR 5/4) silt loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; few fine tubular pores; 10 percent fine distinct irregular yellowish brown (10YR 5/6) iron-manganese masses in the matrix; strongly acid; gradual smooth boundary.

2C—65 to 80 inches; brown (10YR 5/3) fine sandy loam; massive; 10 percent fine distinct irregular yellowish brown (10YR 5/6) iron-manganese masses in the matrix; 5 percent coarse distinct spherical very dark grayish brown (10YR 3/2) iron-manganese concretions in the matrix; 2 percent fine distinct irregular light brownish gray (10YR 6/2) iron depletions in the matrix; strongly acid.

Range in Characteristics

Thickness of the solum: 45 to 80 inches
Depth to bedrock: Greater than 60 inches
Reaction: Very strongly acid to moderately acid, except where lime has been applied

Ap and BA horizons:
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 2 to 4
Texture—silt loam

Bw horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 to 6
Texture—silt loam or silty clay loam

BC horizon:
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 6
Texture—silt loam
Redoximorphic features—iron or clay depletions in shades of gray

2C horizon:
Color—hue of 10YR, 2.5Y, or 5Y, value of 4 or 5, and chroma of 2 to 6
Texture—fine sandy loam, loam, or silt loam
Redoximorphic features—iron or clay depletions in shades of brown and gray

Chenneby Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Flood plains
Position on landform: Linear areas
Parent material: Silty alluvium over loamy alluvium
Drainage class: Somewhat poorly drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low

Slope: 0 to 3 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Fluvaquentic Dystrudepts

Associated Soils

- Arkabutla soils, which are in the slightly lower positions
- Cascilla soils, which are in the higher positions and are well drained
- Iuka soils, which are in positions similar to those of the Chenneby soils and are sandier
- Lobelville soils, which are in positions similar to those of the Chenneby soils and contain more gravel

Typical Pedon

Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded; Henry County, Tennessee; Osage, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 15 minutes, 31.05 seconds N. and long. 88 degrees, 28 minutes, 6.87 seconds W.; NAD83.

Ap—0 to 8 inches; brown (10YR 4/3) silt loam; moderate medium granular and weak medium subangular blocky structure; very friable; many fine roots throughout; moderately acid; clear smooth boundary.

Bw1—8 to 19 inches; yellowish brown (10YR 5/4) silt loam; 7 percent medium faint irregular dark yellowish brown (10YR 4/4) mottles; moderate medium subangular blocky structure; friable; common fine and few medium roots throughout; common very fine tubular pores; 2 percent fine prominent irregular moderately cemented yellowish red (5YR 4/6) masses of oxidized iron in the matrix; 1 percent fine distinct irregular moderately cemented pale brown (10YR 6/3) iron depletions in the matrix; strongly acid; clear smooth boundary.

Bw2—19 to 32 inches; brown (10YR 5/3) silt loam; moderate medium subangular blocky structure; friable; 10 percent fine prominent irregular moderately cemented yellowish red (5YR 4/6) masses of oxidized iron in the matrix; 1 percent fine distinct irregular moderately cemented light brownish gray (10YR 6/2) iron depletions in the matrix; very strongly acid; clear smooth boundary.

Bg—32 to 40 inches; grayish brown (10YR 5/2) silt loam; weak coarse subangular blocky structure; friable; 15 percent fine prominent irregular moderately cemented yellowish red (5YR 4/6) masses of oxidized iron lining pores; 15 percent medium prominent irregular moderately cemented yellowish red (5YR 4/6) masses of oxidized iron lining pores; very strongly acid; clear smooth boundary.

BCg—40 to 50 inches; gray (10YR 5/1) silt loam; weak coarse subangular blocky structure; friable; 8 percent fine prominent irregular moderately cemented yellowish red (5YR 4/6) masses of oxidized iron lining pores; 7 percent medium prominent irregular moderately cemented yellowish red (5YR 4/6) masses of oxidized iron lining pores; very strongly acid; gradual smooth boundary.

Cg1—50 to 57 inches; gray (2.5Y 5/1) silt loam; massive; loose; 5 percent fine prominent irregular moderately cemented yellowish red (5YR 4/6) and strong brown (7.5YR 4/6) masses of oxidized iron lining pores; 5 percent medium prominent irregular moderately cemented yellowish red (5YR 4/6) and strong brown (7.5YR 4/6) masses of oxidized iron lining pores; strongly acid; clear smooth boundary.

2Cg2—57 to 80 inches; gray (2.5Y 5/1) stratified layers of loamy sand, fine sandy loam, loam, and silt loam, averaging sandy loam; massive; loose; content of sand increases with depth; very strongly acid.

Range in Characteristics

Thickness of the solum: 30 to 70 inches
Depth to bedrock: Greater than 72 inches

Reaction: Strongly acid to moderately acid in the A horizon, except where lime has been applied, and extremely acid to moderately acid in the B and C horizons

Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4
Texture—silt loam, loam, or silty clay loam

Bw horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 or 4
Texture—dominantly silt loam or silty clay loam; loam or clay loam in some pedons
Redoximorphic features (where present)—iron or clay depletions in shades of grey and brown and iron accumulations in shades of brown

Bg horizon:
Color—hue of 10YR, value of 4 to 6, and chroma of 2 or less; or neutral in hue and value of 4 to 6
Texture—dominantly silt loam or silty clay loam; loam or clay loam in some pedons
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of red and brown

BCg horizon (where present):
Color—hue of 10YR, value of 4 to 6, and chroma of 2 or less; or neutral in hue and value of 4 to 6
Texture—dominantly silt loam or silty clay loam; loam or clay loam in some pedons

Cg or 2Cg horizon (where present):
Color—hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 or less; or neutral in hue and value of 4 to 6
Texture—dominantly silty clay loam to sandy loam; stratified layers of sandy and silty material in some pedons

Chickasaw Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Divides
Position on hillslope: Convex backslopes and footslopes
Parent material: Clayey marine deposits
Drainage class: Well drained
Permeability class: Very slow or impermeable
Soil depth class: Moderately deep to paralithic bedrock
Shrink-swell potential: Very high
Slope: 12 to 25 percent
Taxonomic classification: Fine, smectitic, thermic Vertic Hapludalfs

Associated Soils

- Arundel soils, which are moderately deep to soft bedrock
- Dulac soils, which are in the less sloping positions and have a fragipan
- Luverne soils, which are in the steeper positions
- Tippah soils, which are in the less sloping positions and are moderately well drained

Typical Pedon

Chickasaw silt loam in an area of Arundel-Chickasaw complex, 12 to 25 percent slopes, eroded, supporting hardwoods; Henry County, Tennessee; Osage, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 10 minutes, 38.55 seconds N. and long. 88 degrees, 19 minutes, 22.7 seconds W.; NAD83.

A—0 to 3 inches; very dark grayish brown (10YR 3/2) silt loam; moderate medium granular structure; very friable, slightly sticky, slightly plastic; many fine, common medium, and common very fine roots throughout; strongly acid; gradual smooth boundary.

EB—3 to 6 inches; light olive brown (2.5Y 5/4) silt loam; moderate medium subangular blocky structure; very friable, slightly sticky, slightly plastic; common fine and many medium roots throughout; few very fine pores; strongly acid; clear smooth boundary.

Bt—6 to 13 inches; dark yellowish brown (10YR 4/6) silty clay; moderate medium angular blocky structure; firm, moderately sticky, moderately plastic; few fine and common medium roots throughout; common very fine tubular pores; 20 percent continuous distinct strong brown (7.5YR 4/6) clay films on faces of peds; moderately acid; clear smooth boundary.

Btss1—13 to 23 inches; strong brown (7.5YR 4/6) clay; moderate medium angular blocky structure; firm, very sticky, very plastic; few medium roots throughout; few very fine tubular pores; 30 percent continuous faint strong brown (7.5YR 4/6) clay films on faces of peds; moderately acid; gradual smooth boundary.

Btss2—23 to 42 inches; strong brown (7.5YR 5/6) clay; 12 percent medium distinct pale brown (10YR 6/3) and 2 percent fine distinct light brownish gray (10YR 6/2) mottles; moderate medium subangular blocky structure; very firm, very sticky, very plastic; few fine tubular pores; 40 percent continuous faint strong brown (7.5YR 4/6) clay films on faces of peds; strongly acid; clear smooth boundary.

Cr—42 to 80 inches; grayish brown (2.5Y 5/2) weathered bedrock.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Depth to bedrock: 40 to 60 inches to soft bedrock
Rock fragments: 0 to 10 percent ironstone gravel in the A and BE horizons and the upper part of the Bt horizon
Reaction: Strongly acid to extremely acid

A horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 or 3
Texture—loam, silt loam, silty clay loam, clay loam, silty clay, or clay

E horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 6
Texture—very fine sandy loam, fine sandy loam, or loam

Bt and Btss horizons:
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 3 to 8
Texture—clay loam, silty clay, or clay

Cr horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 to 4
Type of bedrock—horizontally bedded, highly fractured siltstone or claystone

Deanburg Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Divides
Position on hillslope: Convex summits
Parent material: Loamy eolian deposits over sandy eolian deposits (fig. 12)
Drainage class: Well drained
Permeability class: Moderate

Figure 12.—A profile of Deanburg loam, 5 to 8 percent slope, eroded. Coastal Plain sediments underlie most of the soils in Henry County. The interbedded white quartz sand and iron-stained layers are the product of ancient marine deposition from storm-event washover fans on the protected side of a barrier island.

Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 2 to 8 percent
Taxonomic classification: Fine-loamy, mixed, active, thermic Ultic Hapludalfs

Associated Soils

- Lexington soils, which are fine-silty and have a thicker loess cap than that of the Deanburg soils
- Ochlockonee and Iuka soils, which are on flood plains adjacent to the Deanburg soils
- Providence soils, which have a fragipan and are moderately well drained
- Smithdale soils, which are in the steeper positions

Typical Pedon

Deanburg loam, 2 to 5 percent slopes, severely eroded; Henry County, Tennessee; Paris, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 21 minutes, 31.03 seconds N. and long. 88 degrees, 21 minutes, 18.76 seconds W.; NAD83.

Ap—0 to 3 inches; brown (7.5YR 4/4) loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine roots throughout; few fine vesicular pores; moderately acid; abrupt smooth boundary.
Bt1—3 to 23 inches; strong brown (7.5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; firm, moderately sticky, slightly plastic; few fine roots throughout; common fine tubular pores; strongly acid; abrupt wavy boundary.
2Bt2—23 to 30 inches; strong brown (7.5YR 4/6) sandy loam; moderate medium subangular blocky structure; friable, slightly sticky, moderately plastic; common fine tubular pores; strongly acid; clear smooth boundary.
2E/Bt—30 to 80 inches; yellow (10YR 7/6) sand (E part) and strong brown (7.5YR 4/6) sandy loam (Bt part); weak medium subangular blocky structure; very friable, slightly sticky, slightly plastic; few fine tubular pores; strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 60 inches
Depth to bedrock: Greater than 60 inches
Depth to 2E/Bt layer: 30 to 50 inches
Reaction: Very strongly acid to moderately acid

A horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 or 4
Texture—silt loam, loam, and, in severely eroded pedons, clay loam or sandy clay loam

Bt horizon:
Color—hue of 7.5YR or 5YR, value of 4 or 5, and chroma of 4 to 6
Texture—dominantly loam, clay loam, or sandy clay loam; silt loam or silty clay loam in the upper part of the horizon in some pedons
Mottles (where present)—shades of yellow and brown

2Bt horizon:
Color—hue of 7.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—sandy loam or sandy clay loam

2E and Bt horizon or 2E/Bt horizon (E part):
Color—hue of 10YR or 7.5YR, value of 6 or 7, and chroma of 6 to 8
Texture—loamy sand or sand

2E and Bt horizon or 2E/Bt horizon (Bt part):
Color—hue of 7.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—loamy sand or sandy loam

Dulac Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Divides
Position on hillslope: Convex or linear summits, shoulders, and backslopes
Parent material: Loess over clayey marine deposits
Drainage class: Moderately well drained
Permeability class: Very slow
Soil depth class: Shallow to a fragipan
Shrink-swell potential: Moderate
Slope: 2 to 12 percent
Taxonomic classification: Fine-silty, mixed, semiactive, thermic Oxyaquic Fragiudalfs

Associated Soils

- Arundel and Chickasaw soils, which are in the steeper positions and have a higher content of clay than the Dulac soils
- Luverne soils, which are in the steeper positions and are well drained
- Providence soils, which have less clay in the subsoil than the Dulac soils
- Tippah soils, which are in positions similar to those of the Dulac soils and do not have a fragipan

Typical Pedon

Dulac silt loam in an area of Dulac-Tippah complex, 8 to 12 percent slopes, eroded; Henry County, Tennessee; Mansfield, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 9 minutes, 38.56 seconds N. and long. 88 degrees, 20 minutes, 25.47 seconds W.; NAD83.

Ap—0 to 5 inches; yellowish brown (10YR 5/4) silt loam; moderate coarse granular and weak medium subangular blocky structure; very friable, nonsticky, nonplastic; many fine roots throughout; common fine vesicular pores; moderately acid; clear smooth boundary.

Bt1—5 to 13 inches; strong brown (7.5YR 4/6) silty clay loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; many fine roots throughout; strongly acid; abrupt smooth boundary.

Bt2—13 to 19 inches; dark yellowish brown (10YR 4/6) silty clay loam; strong medium subangular blocky structure; friable, moderately sticky, moderately plastic; common very fine vesicular pores; 25 percent continuous distinct yellowish brown (10YR 5/6) clay films on faces of peds; medium distinct irregular light yellowish brown (10YR 6/4) clay depletions in the matrix; strongly acid; clear smooth boundary.

Btx1—19 to 30 inches; dark yellowish brown (10YR 4/6) silt loam; moderate coarse prismatic structure parting to moderate medium subangular blocky; firm, slightly sticky, slightly plastic; common very fine vesicular pores; 50 percent continuous distinct yellowish brown (10YR 5/6) clay films on faces of peds; 5 percent medium distinct irregular light brownish gray (10YR 6/2) iron depletions in the matrix; very strongly acid; clear smooth boundary.

2Btx2—30 to 33 inches; 60 percent strong brown (7.5YR 4/6) and 40 percent dark yellowish brown (10YR 4/6) clay loam; moderate very coarse prismatic structure parting to moderate medium subangular blocky; firm, moderately sticky, moderately plastic; 5 percent medium distinct irregular light brownish gray (10YR 6/2) iron depletions on faces of peds; very strongly acid; clear smooth boundary.

2Bt—33 to 56 inches; strong brown (7.5YR 5/8), gray (10YR 6/1), and red (2.5YR 4/8) clay; strong medium angular blocky structure; very firm, very sticky, very plastic; 10 percent subangular claystone channers; very strongly acid; gradual smooth boundary.

2C—56 to 64 inches; dark yellowish brown (10YR 4/6), light brownish gray (2.5Y 6/2), grayish brown (2.5Y 5/2), and light yellowish brown (2.5Y 6/3) clay; massive; friable, very sticky, very plastic; 8 percent medium prominent irregular strong brown (7.5YR 5/8 and 5/6) iron-manganese masses in the matrix; 5 percent fine prominent irregular red (2.5YR 4/8) iron-manganese masses in the matrix; 10 percent subangular claystone channers; very strongly acid; abrupt smooth boundary.

2Cr—64 to 80 inches; soft, gray (2.5Y 5/1), claystone bedrock.

Range in Characteristics

Thickness of the solum: Greater than 50 inches
Depth to bedrock: Greater than 60 inches
Depth to contrasting soil material: 30 to 55 inches to clayey material
Depth to fragipan: 16 to 34 inches
Reaction: Strongly acid or very strongly acid, except where the surface layer has been limed

Ap or A horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 to 6
Texture—silt loam or, in severely eroded areas, silty clay loam

Bt horizon:
Color—dominantly hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6; rarely, hue of 5YR, value of 4, and chroma of 4 to 6
Texture—silt loam or silty clay loam, averaging 25 to 32 percent clay

Btx horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 to 8
Texture—silt loam or silty clay loam
Redoximorphic features—iron or clay depletions in shades of brown and gray; iron accumulations in shades of brown, yellow, or red

2Bt and 2C horizons:
Color—range from shades of red to shades of gray and mottled with other colors
Texture—silty clay or clay

Ennis Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Flood plains
Position on landform: Linear areas
Parent material: Gravelly alluvium
Drainage class: Well drained
Permeability class: Moderately rapid
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 3 percent
Taxonomic classification: Fine-loamy, siliceous, semiactive, thermic Fluventic Dystrudepts

Associated Soils

- Humphreys soils, which are on terraces adjacent to the Ennis soils
- Lobelville soils, which are in the lower positions
- Pruitton soils, which are in positions similar to those of the Ennis soils and have less gravel in the upper part
- Riverby soils, which are in the higher positions and on levees

Typical Pedon

Ennis gravelly silt loam in an area of Riverby-Ennis complex, 0 to 3 percent slopes, occasionally flooded; Benton County, Tennessee; McKinnon, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 15 minutes, 27 seconds N. and long. 87 degrees, 58 minutes, 49.3 seconds W.; NAD83.

A—0 to 4 inches; brown (10YR 4/3) gravelly silt loam; moderate fine granular structure; very friable, nonsticky, nonplastic; many fine, common medium, and common very fine roots throughout; 16 percent rounded chert gravel; strongly acid; clear smooth boundary.

BA—4 to 7 inches; dark yellowish brown (10YR 4/6) gravelly silt loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; common fine, few medium, and common very coarse roots throughout; common fine tubular pores; 17 percent rounded chert gravel; strongly acid; clear smooth boundary.

Bw1—7 to 22 inches; yellowish brown (10YR 5/6) gravelly loam; 1 percent fine distinct irregular light yellowish brown (10YR 6/4) mottles; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; common fine and few medium roots around fragments; many fine and common medium tubular pores; 20 percent rounded chert gravel; strongly acid; clear smooth boundary.

Bw2—22 to 37 inches; yellowish brown (10YR 5/6) gravelly silt loam; 8 percent medium distinct irregular light yellowish brown (10YR 6/4) mottles; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and few medium roots around fragments; many fine and common medium tubular pores; 25 percent rounded chert gravel; strongly acid; clear smooth boundary.

C—37 to 40 inches; yellowish brown (10YR 5/4) very gravelly loam; 5 percent medium faint irregular brown (10YR 5/3) mottles; single grain; loose, nonsticky, nonplastic; few medium roots around fragments; 5 percent rounded cobbles and 48 percent rounded chert gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: 25 to more than 60 inches
Depth to bedrock: Greater than 60 inches
Rock fragments: Dominantly 15 to 35 percent; 15 to 75 percent in the C horizon
Reaction: Very strongly acid to moderately acid, except where lime has been applied

A horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 6
Texture (fine-earth fraction)—silt loam, loam, or, rarely, sandy loam

Bw and BA horizons:
Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 6
Texture (fine-earth fraction)—silt loam, loam, or, rarely, clay loam or silty clay loam

C horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 to 6
Texture (fine-earth fraction)—silt loam, loam, silty clay loam, or, rarely, clay loam or sandy loam

Enville Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Flood plains
Position on landform: Linear areas
Parent material: Coarse-loamy alluvium over sandy alluvium
Drainage class: Somewhat poorly drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 2 percent
Taxonomic classification: Coarse-loamy, siliceous, semiactive, acid, thermic Aeric Fluvaquents

Associated Soils

- Chenneby soils, which are in the slightly lower positions
- Iuka soils, which are in the higher positions
- Rosebloom and Bibb soils, which are in the lower, frequently flood areas

Typical Pedon

Enville silt loam, 0 to 2 percent slopes, occasionally flooded; Henry County, Tennessee; Puryear, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 24 minutes, 58.07 seconds N. and long. 88 degrees, 17 minutes, 26.69 seconds W.; NAD83.

A—0 to 5 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium granular structure; very friable, slightly sticky, slightly plastic; common fine roots throughout; moderately acid; abrupt smooth boundary.

Bw—5 to 9 inches; yellowish brown (10YR 5/4) silt loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; common fine roots throughout; common medium tubular pores; strongly acid; clear smooth boundary.

C—9 to 13 inches; light yellowish brown (10YR 6/4) silt loam; massive; friable, nonsticky, nonplastic; common fine roots throughout; common medium tubular pores; 15 percent fine distinct irregular light brownish gray (10YR 6/2) iron depletions; strongly acid; clear smooth boundary.

Cg—13 to 20 inches; light brownish gray (10YR 6/2) stratified layers of sand, loamy sand, and sandy loam, averaging loamy sand; massive; very friable, nonsticky, nonplastic; common medium tubular pores; 25 percent fine distinct irregular yellowish brown (10YR 5/4) masses of oxidized iron in the matrix; 1 percent fine faint irregular gray (10YR 6/1) iron depletions; strongly acid; abrupt smooth boundary.

C´—20 to 29 inches; light yellowish brown (10YR 6/4) loamy sand; massive; very friable, nonsticky, nonplastic; 30 percent fine distinct irregular light gray (10YR 7/2) iron depletions; 25 percent medium distinct irregular brownish yellow (10YR 6/6) masses of oxidized iron in the matrix; strongly acid; clear smooth boundary.

C´g1—29 to 39 inches; gray (2.5Y 5/1) sandy loam; massive; very friable, nonsticky, nonplastic; 1 percent fine prominent irregular yellowish brown (10YR 5/6) masses of oxidized iron in the matrix; strongly acid; clear smooth boundary.

C´g2—39 to 45 inches; light gray (2.5Y 7/1) sand; single grain; loose, nonsticky, nonplastic; strongly acid; clear smooth boundary.

C´g3—45 to 80 inches; grayish brown (10YR 5/2) gravelly loamy sand; massive; loose, nonsticky, nonplastic; 25 percent rounded quartz gravel; strongly acid.

Range in Characteristics

Depth to bedrock: Greater than 80 inches
Rock fragments: 0 to 20 percent gravel

Reaction: Strongly acid or very strongly acid, except where the surface layer has been limed

Other: Some pedons have an Ab horizon above a Bgb horizon. The Ab horizon has a range in textures similar to that of the Bgb horizon and has slightly darker colors.

Ap or A horizon:
Color—dominantly hue of 10YR, value of 4 or 5, and chroma of 4; in some pedons, the A horizon is thin and has hue of 10YR, value of 3 or 4, and chroma of 3.
Texture—loamy sand, sandy loam, fine sandy loam, loam, or silt loam

Bw horizon (where present):
Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 3 to 6
Texture—loamy sand, sandy loam, fine sandy loam, or silt loam

C horizon:
Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 3 to 6
Texture—commonly contains strata of loamy sand, sandy loam, fine sandy loam, or silt loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of red or brown

Cg or C´g horizon:
Color—hue of 10YR or 7.5YR, value of 5 to 7, and chroma of 1 or 2
Texture—stratified (colors similar to C or C´)
Rock fragments—up to 15 percent gravel
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of red or brown

Bgb horizon (where present):
Color—hue of 10YR, value of 6 or 7, and chroma of 1 or 2
Texture—sandy loam, loam, or silt loam

Falkner Series

Ma*jor land resource area:* 134—Southern Mississippi Valley Loess
Geomorphic setting: Divides
Position on hillslope: Concave summits
Parent material: Loess over clayey marine deposits
Drainage class: Somewhat poorly drained
Permeability class: Slow
Soil depth class: Very deep
Shrink-swell potential: Moderate
Slope: 1 to 5 percent
Taxonomic classification: Fine-silty, siliceous, active, thermic Aquic Paleudalfs

Associated Soils

- Arundel soils, which are in the steeper positions and have soft bedrock
- Chickasaw soils, which are in the steeper positions and have a higher content of clay than the Falkner soils
- Dulac soils, which are in the higher positions and have a fragipan
- Tippah soils, which are in the higher positions and are moderately well drained

Typical Pedon

Falkner silt loam, 1 to 5 percent slopes, eroded; Henry County, Tennessee; Mansfield, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 9 minutes, 3.2 seconds N. and long. 88 degrees, 19 minutes, 58 seconds W.; NAD83.

Ap—0 to 7 inches; brown (10YR 4/3) silt loam; moderate medium granular structure; very friable, nonsticky, nonplastic; few fine roots throughout; moderately acid; clear smooth boundary.

Bt1—7 to 15 inches; light yellowish brown (10YR 6/4) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine roots throughout; few fine tubular pores; 1 percent fine distinct spherical yellowish brown (10YR 5/6) iron-manganese concretions in the matrix; 1 percent medium distinct spherical yellowish brown (10YR 5/6) iron-manganese concretions in the matrix; strongly acid; abrupt smooth boundary.

Bt2—15 to 22 inches; pale brown (10YR 6/3) silty clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine tubular pores; 8 percent fine distinct irregular moderately cemented yellowish brown (10YR 5/6) iron-manganese masses in the matrix; 8 percent medium distinct irregular moderately cemented yellowish brown (10YR 5/6) iron-manganese masses in the matrix; 5 percent fine faint irregular light brownish gray (10YR 6/2) iron depletions in the matrix; 5 percent medium faint irregular light brownish gray (10YR 6/2) iron depletions in the matrix; strongly acid; clear smooth boundary.

2Btg1—22 to 38 inches; gray (10YR 6/1) silty clay; moderate medium subangular blocky structure; very firm, very sticky, very plastic; common fine vesicular pores; 2 percent distinct clay films on faces of peds; 15 percent medium prominent irregular moderately cemented strong brown (7.5YR 5/8) iron-manganese masses in the matrix; very strongly acid; gradual smooth boundary.

2Btg2—38 to 77 inches; gray (10YR 6/1) clay; moderate medium subangular blocky structure; very firm, very sticky, very plastic; common fine vesicular pores; 25 percent coarse prominent irregular moderately cemented yellowish red (5YR 5/8) iron-manganese masses in the matrix; very strongly acid; clear smooth boundary.

2Cr—77 to 80 inches; claystone bedrock; very strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 60 inches
Depth to bedrock: Greater than 60 inches
Reaction: Very strongly acid to moderately acid, except where the surface layer has been limed

Ap or A horizon:
Color—hue of 10YR, value of 3 to 6, and chroma of 1 to 4
Texture—silt loam or silty clay loam

Bt1 horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 6
Texture—silt loam or silty clay loam
Redoximorphic features (where present)—iron or clay depletions in shades of gray or brown and iron accumulations in shades of brown

Bt2 horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 6; or multicolored in shades of gray, red, brown, or yellow
Texture—silt loam or silty clay loam
Redoximorphic features—iron or clay depletions in shades of gray or brown; iron accumulations in shades of brown, red, or yellow

2Btg horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2; or multicolored in shades of gray, brown, red, or yellow

Texture—clay, silty clay, or silty clay loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of red, yellow, or brown

2Cr horizon (where present):
Type of bedrock—weathered, fractured, gray or dark gray claystone that can be dug with difficulty using a spade

Feliciana Series

Major land resource area: 134—Southern Mississippi Valley Loess
Geomorphic setting: Divides
Position on hillslope: Linear summits
Parent material: Loess
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 5 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Ultic Hapludalfs

Associated Soils

- Lexington soils, which are in the more eroded areas
- Loring or Grenada soils, which have a fragipan
- Providence soils, which are in the more eroded areas and have a fragipan

Typical Pedon

Feliciana silt loam, 0 to 2 percent slopes, in an area of tame pastureland; Henry County, Tennessee; Paris, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 20 minutes, 52.3 seconds N. and long. 88 degrees, 22 minutes, 4.6 seconds W.; NAD83.

Ap—0 to 4 inches; brown (10YR 4/3) silt loam; moderate coarse and medium granular structure; very friable, slightly sticky, slightly plastic; many fine and many medium roots throughout; moderately acid; clear smooth boundary.

A—4 to 12 inches; brown (10YR 4/3) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and common medium roots throughout; moderately acid; abrupt smooth boundary.

Bt1—12 to 40 inches; strong brown (7.5YR 4/6) silt loam; moderate coarse subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and common medium roots between peds; common fine dendritic tubular pores; root channels up to 2.5 centimeters wide filled with granular (10YR 4/3) material from the A horizon; moderately acid; clear smooth boundary.

Bt2—40 to 63 inches; brown (7.5YR 4/4) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and few medium roots between peds; common fine dendritic tubular pores; 7 percent discontinuous distinct silt coats on faces of peds; 10 percent medium distinct irregular black (7.5YR 2.5/1) manganese masses on faces of peds; root channels up to 2.5 centimeters wide filled with granular (10YR 4/3) material from the A horizon; moderately acid; clear smooth boundary.

2Bt3—63 to 72 inches; reddish brown (5YR 4/4) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine dendritic tubular pores; 10 percent discontinuous distinct silt coats on faces of peds; 8 percent fine distinct irregular black (7.5YR 2.5/1) manganese masses on faces of peds; strongly acid.

Range in Characteristics

Ap or A horizon:
Color—dominantly hue of 10YR, value of 4 or 5, and chroma of 1 to 4; or hue of 7.5YR, value of 4 or 5, and chroma of 4. Some pedons have a thin A horizon that has hue of 7.5YR, value of 3, and chroma of 2 or 3.
Texture—silt or silt loam

Bt horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6
Texture—silt loam or silty clay loam; less than 5 percent sand to a depth of 40 inches or more; up to 15 percent sand below a depth of 40 inches in some pedons
Redoximorphic features—few to many black coats and stains on ped faces. Gray, pale brown, or light yellowish brown silt coatings in cracks on faces of peds. Silt coatings are not present in all pedons.

2Bt horizon (below a depth of 48 inches):
Color—hue of 10YR or 5YR, value of 4 to 5, and chroma of 4 to 6
Texture—sandy loam, silt loam, loam, sandy clay loam, or clay loam

Grenada Series

Ma*jor land resource area:* 134—Southern Mississippi Valley Loess
Geomorphic setting: Divides
Position on hillslope: Concave summits
Parent material: Loess
Drainage class: Moderately well drained
Permeability class: Slow
Soil depth class: Moderately deep to a fragipan
Shrink-swell potential: Low
Slope: 0 to 5 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Oxyaquic Fraglossudalfs

Associated Soils

- Calloway soils, which are in the lower positions and are somewhat poorly drained
- Feliciana soils, which are in the higher positions and are well drained
- Kurk soils, which are in the lower positions and are somewhat poorly drained
- Loring soils, which are in the slightly higher positions
- Routon soils, which are in depressions and are poorly drained

Typical Pedon

Grenada silt loam, 0 to 2 percent slopes, in an area of row crops; Henry County, Tennessee; Osage, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 16 minutes, 37.6 seconds N. and long. 88 degrees, 28 minutes, 58.8 seconds W.; NAD83.

Ap—0 to 7 inches; brown (10YR 4/3) silt loam; moderate medium granular structure; very friable, slightly sticky, slightly plastic; many fine and many very fine roots throughout; 15 percent coarse prominent irregular light brownish gray (10YR 6/2) iron depletions; 5 percent medium prominent irregular gray (10YR 6/1) iron depletions; moderately acid; clear smooth boundary.

BA—7 to 9 inches; brown (10YR 4/3) silt loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and many very fine roots throughout; moderately acid; abrupt smooth boundary.

Bw—9 to 18 inches; yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and few medium roots throughout; few fine and few very fine vesicular pores; 5 percent medium distinct irregular pale brown (10YR 6/3) iron depletions; moderately acid; clear smooth boundary.

E/Btx—18 to 32 inches; strongly acid; clear smooth boundary.

E part—light yellowish brown (10YR 6/4) silt loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; few fine and few very fine vesicular pores; 5 percent coarse distinct irregular light brownish gray (10YR 6/2) iron depletions; 5 percent medium distinct irregular strong brown (7.5YR 4/6) masses of oxidized iron in the matrix.

Btx part—strong brown (7.5YR 5/6) silty clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine and few very fine vesicular pores; 5 percent coarse distinct irregular light brownish gray (10YR 6/2) iron depletions; 5 percent medium distinct irregular strong brown (7.5YR 4/6) masses of oxidized iron in the matrix.

Btx1—32 to 48 inches; strong brown (7.5YR 5/6) silty clay loam; weak medium prismatic structure parting to weak medium subangular blocky; firm, moderately sticky, moderately plastic; common fine tubular pores; 15 percent coarse prominent irregular light brownish gray (10YR 6/2) iron depletions; 5 percent medium prominent irregular gray (10YR 6/1) iron depletions; strongly acid; gradual smooth boundary.

Btx2—48 to 80 inches; brown (7.5YR 4/4) silt loam; moderate medium prismatic structure parting to weak medium subangular blocky; friable, slightly sticky, slightly plastic; strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 80 inches
Depth to bedrock: Greater than 60 inches
Depth to fragipan: 18 to 36 inches
Reaction: Moderately acid or strongly acid, except where lime has been applied

Ap horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4
Texture—silt loam

BA horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6

Bw horizon:
Color—hue of 10YR, value of 4 to 6, and chroma of 4 to 6; or hue of 2.5Y, value of 5 or 6, and chroma of 4
Texture—silt loam or silty clay loam
Mottles (where present)—shades of brown

E horizon (where present) and the E part of the E/Btx horizon:
Color—hue of 10YR, value of 5 to 7, and chroma of 1 or 2; hue of 10YR, value of 7, and chroma of 2 or 3; or hue of 2.5Y, value of 5 or 6, and chroma of 2
Texture—silt or silt loam
Mottles (where present)—shades of brown
Redoximorphic features—masses of iron accumulations in shades of brown

Btx horizon and the Btx portion of the E/Btx horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 to 6; hue of 7.5YR, value of 4 or 5, and chroma of 4; or mottled in shades of gray and brown

Texture—silt loam or silty clay loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of brown

Hawthorne Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Hills
Position on hillslope: Convex or linear summits, shoulders, and backslopes
Parent material: Residuum weathered from siltstone, residuum weathered from chert, or both
Drainage class: Somewhat excessively drained
Permeability class: Moderately rapid
Soil depth class: Moderately deep to paralithic bedrock
Shrink-swell potential: Low
Slope: 5 to 70 percent
Taxonomic classification: Loamy-skeletal, siliceous, semiactive, thermic Typic Dystrudepts

Associated Soils

- Lax soils, which have a fragipan and are on the broader ridges
- Minvale soils, which are on foot slopes and are very deep
- Sengtown soils, which are on upland side slopes adjacent to the Hawthorne soils
- Sugargrove soils, which are on side slopes adjacent to the Hawthorne soils and are underlain by bedrock
- Tarklin soils, which are on footslopes and have a fragipan

Typical Pedon

Hawthorne gravelly silt loam in an area of Hawthorne, Sengtown, and Sugargrove soils, 25 to 70 percent slopes; Benton County, Tennessee; Harmon Creek, Tennessee, USGS 7.5-minute quadrangle; lat. 35 degrees, 57 minutes, 51.6 seconds N. and long. 88 degrees, 2 minutes, 32.8 seconds W.; NAD83.

A—0 to 4 inches; dark brown (10YR 3/3) gravelly silt loam; weak medium granular structure; very friable; common fine, common medium, common coarse, and common very fine roots throughout; common fine and common very fine dendritic tubular pores; 20 percent angular chert gravel; strongly acid; clear smooth boundary.
EA—4 to 11 inches; yellowish brown (10YR 5/4) gravelly silt loam; weak fine subangular blocky structure; very friable; common fine and common medium roots throughout; common fine and common very fine dendritic tubular pores; 25 percent angular chert gravel; strongly acid; clear smooth boundary.
Bw—11 to 36 inches; strong brown (7.5YR 5/6) very gravelly silt loam; moderate medium subangular blocky structure; friable; common fine and common medium roots around fragments; common fine dendritic tubular pores; 60 percent angular chert gravel; very strongly acid; clear smooth boundary.
Cr—36 to 80 inches; hard fractured chert bedrock with thin seams of silty clay loam.

Range in Characteristics

Thickness of the solum: 15 to 40 inches
Depth to bedrock: 20 to 40 inches
Rock fragments: 10 to 35 percent, by volume, coarse fragments in the A horizon; 35 to 60 percent, by volume, coarse fragments in the B and C horizons
Reaction: Strongly acid to extremely acid

A horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4
Texture—gravelly silt loam

E or EA horizon:
Color—hue of 10YR, value of 5 to 7, and chroma of 2 to 4
Texture—gravelly silt loam

Bw horizon:
Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 4 to 6; mottles in shades of yellow, brown, and red
Texture (fine-earth fraction)—silt loam or silty clay loam

Cr layer:
Type of bedrock—a mixture of highly weathered siltstone and hard fractured chert beds interlayered with thin seams of silty clay loam to clay material. The weathered siltstone is platy to flaggy and can be dug with a spade. The chert fragments range up to 10 inches in diameter.

Humphreys Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Alluvial fans
Position on hillslope: Convex or linear footslopes
Parent material: Loamy alluvium
Drainage class: Well drained
Permeability class: Moderately rapid
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 12 percent
Taxonomic classification: Fine-loamy, mixed, semiactive, thermic Ultic Hapludalfs

Associated Soils

- Armour soils, which are in the lower positions and are well drained
- Hawthorne and Sugargrove soils, which are on side slopes adjacent to the Humphreys soils and are underlain by bedrock
- Paden soils, which are in positions similar to those of the Humphreys soils and have a fragipan
- Sengtown soils, which are on upland side slopes adjacent to the Humphreys soils

Typical Pedon

Humphreys gravelly silt loam, 2 to 5 percent slopes; Benton County, Tennessee; Harmon Creek, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 8 minutes, 43.2 seconds N. and long. 87 degrees, 59 minutes, 3.8 seconds W.; NAD83.

A—0 to 6 inches; dark brown (10YR 3/3) gravelly silt loam; moderate fine granular structure; very friable, nonsticky, nonplastic; many fine, common medium, and many very fine roots throughout; 16 percent subangular chert gravel; strongly acid; clear smooth boundary.
BA—6 to 14 inches; dark yellowish brown (10YR 4/6) gravelly silt loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; many fine, common medium, and few coarse roots throughout; few fine tubular pores; 16 percent subangular chert gravel; strongly acid; clear smooth boundary.
Bt1—14 to 27 inches; strong brown (7.5YR 5/6) gravelly silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine, few

medium, and few coarse roots throughout; common fine and common medium tubular pores; 10 percent patchy faint strong brown (7.5YR 4/6) clay films on faces of peds; 15 percent subangular chert gravel; strongly acid; clear smooth boundary.

Bt2—27 to 50 inches; strong brown (7.5YR 4/6) gravelly silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and few medium roots throughout; few fine and few medium tubular pores; 35 percent patchy distinct brown (7.5YR 4/4) clay films on faces of peds; 20 percent subangular chert gravel; strongly acid; clear smooth boundary.

Bt3—50 to 57 inches; strong brown (7.5YR 5/6) very gravelly silt loam; strong medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and few medium roots between peds; few fine and few medium tubular pores; 60 percent continuous distinct brown (7.5YR 4/4) clay films on faces of peds; 40 percent subangular chert gravel; strongly acid; gradual smooth boundary.

BC—57 to 80 inches; strong brown (7.5YR 5/6) very gravelly loam; strong medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and few medium tubular pores; 10 percent patchy distinct brown (7.5YR 4/4) clay films on faces of peds; 60 percent subangular chert gravel; strongly acid.

Range in Characteristics

Thickness of the solum: 30 to 60 inches
Depth to bedrock: Greater than 60 inches
Rock fragments: 15 to 35 percent in the A and Bt horizons, 35 to 60 percent in the BC horizon, and 35 to 80 percent in the C horizon
Reaction: Strongly acid to neutral

A horizon:
Color—dominantly hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 2 to 4; in some pedons, the A horizon is discontinuous, less than 7 inches thick, and has value and chroma of 3.
Texture—gravelly silt loam or gravelly loam

BA horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 2 to 6
Texture—gravelly silt loam or gravelly loam

Bt horizon:
Color—hue of 7.5YR, 10YR, and, rarely, 5YR, value of 4 or 5, and chroma of 4 to 6
Texture—gravelly silt loam, gravelly loam, gravelly silty clay loam, or gravelly clay loam

BC and C horizon (where present):
Color—hue of 7.5YR and10YR, value of 4 or 5, and chroma of 4 to 6
Texture (fine-earth fraction)—silty clay loam, clay loam, silt loam, sandy loam, loamy coarse sand, or loam

Iuka Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Flood plains
Position on landform: Linear areas
Parent material: Coarse-loamy alluvium
Drainage class: Moderately well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low

Slope: 0 to 2 percent
Taxonomic classification: Coarse-loamy, siliceous, active, acid, thermic Aquic Udifluvents

Associated Soils

- Chenneby soils, which are in positions similar to those of the Iuka soils and are less sandy
- Enville soils, which are in the lower positions and are somewhat poorly drained
- Ochlockonee soils, which are on levees and are well drained

Typical Pedon

Iuka loam, 0 to 2 percent slopes, occasionally flooded; Henry County, Tennessee; Paris, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 21 minutes, 24.96 seconds N. and long. 88 degrees, 21 minutes, 59.11 seconds W.; NAD83.

Ap—0 to 5 inches; brown (10YR 4/3) loam; moderate fine granular structure; very friable; many fine and many very fine roots throughout; common medium tubular pores; 1 percent fine distinct irregular moderately cemented light brownish gray (10YR 6/2) iron depletions with clear boundaries in the matrix; moderately acid; clear smooth boundary.
C1—5 to 11 inches; brown (10YR 5/3) silt loam; massive; friable; common fine roots throughout; common fine and common very fine tubular pores; 25 percent medium distinct irregular moderately cemented strong brown (7.5YR 5/6) iron-manganese masses with clear boundaries in the matrix; massive parting to platy along bedding planes; strongly acid; clear wavy boundary.
C2—11 to 22 inches; pale brown (10YR 6/3) alternating strata of silt loam and loamy sand, averaging silt loam; massive; very friable; few fine roots throughout; common fine tubular pores; 25 percent fine prominent reticulate moderately cemented strong brown (7.5YR 5/6 and 4/6) iron-manganese masses with clear boundaries in the matrix; 10 percent fine faint reticulate moderately cemented light brownish gray (10YR 6/2) iron depletions with clear boundaries in the matrix; thick and thin bands of loamy sand; strongly acid; abrupt wavy boundary.
C3—22 to 30 inches; alternating strata of light brown (7.5YR 6/4) loamy sand and brownish yellow (10YR 6/6) silt loam, averaging sandy loam; massive; very friable; few fine roots throughout; strongly acid; clear smooth boundary.
Cg1—30 to 45 inches; light brownish gray (10YR 6/2) sandy loam; massive; friable; 10 percent coarse distinct irregular moderately cemented yellowish brown (10YR 5/6) iron-manganese masses with clear boundaries in the matrix; very strongly acid; diffuse smooth boundary.
Cg2—45 to 62 inches; gray (2.5Y 5/1) loam; massive; friable; 35 percent coarse faint irregular moderately cemented gray (2.5Y 6/1) iron depletions with clear boundaries in the matrix; very strongly acid; diffuse smooth boundary.
Cg3—62 to 87 inches; light gray (2.5Y 7/1) loam; massive; friable; 2 percent fine prominent irregular moderately cemented olive yellow (2.5Y 6/6) and light olive brown (2.5Y 5/6) masses of oxidized iron in the matrix with clear boundaries; very strongly acid.

Range in Characteristics

Depth to bedrock: Greater than 80 inches
Rock fragments: 0 to 10 percent gravel
Reaction: Strongly acid or very strongly acid, except where the surface layer has been limed
Other: Some pedons have thin gravelly or sandy strata, and some pedons are sandy clay loam or clay loam below a depth of 40 inches.

Ap or A horizon:
Color—hue of 10YR or 7.5YR, value of 4 to 7, and chroma of 2 to 4
Texture—fine sandy loam, sandy loam, loamy sand, silt loam, or loam

C horizon:
Color—hue of 7.5YR, 10YR, or 2.5YR, value of 4 to 6, and chroma of 3 to 6; or hue of 10YR or 7.5YR, value of 4, and chroma of 2; mottles with chroma 2 or less within 20 inches of the mineral surface
Texture—sandy loam, fine sandy loam, loam, or silt loam

Cg horizon:
Color—dominantly gray with many brown, red, and yellow mottles; or no dominant matrix color and multicolored in shades of gray, brown, or red
Texture—sandy loam, fine sandy loam, loam, or silt loam

Kurk Series

Ma*jor land resource area:* 134—Southern Mississippi Valley Loess
Geomorphic setting: Terraces and uplands
Position on hillslope: Concave footslopes
Parent material: Loess over loamy fluviomarine deposits
Drainage class: Somewhat poorly drained
Permeability class: Moderately slow
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 3 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Aeric Epiaqualfs

Associated Soils

- Providence soils, which are in the slightly higher positions

Typical Pedon

Kurk silt loam, 0 to 3 percent slopes; Henry County, Tennessee; Osage, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 20 minutes, 13.75 seconds N. and long. 88 degrees, 23 minutes, 13.77 seconds W.; NAD83.

Ap—0 to 7 inches; brown (10YR 5/3) silt loam; moderate medium granular structure; very friable; common fine and common very fine roots throughout; 1 percent fine distinct irregular light brownish gray (10YR 6/2) iron depletions; moderately acid; abrupt smooth boundary.
Bw—7 to 12 inches; light yellowish brown (2.5Y 6/3) silt loam; weak medium subangular blocky structure; friable; common fine roots throughout; common fine tubular pores; 30 percent coarse faint irregular light brownish gray (10YR 6/2) iron depletions on faces of peds; moderately acid; clear smooth boundary.
Eg—12 to 21 inches; light gray (10YR 7/1) silt; moderate fine subangular blocky structure; friable; few very fine roots throughout; common fine dendritic tubular pores; strongly acid; clear smooth boundary.
Btg1—21 to 45 inches; gray (10YR 6/1) silty clay loam; moderate medium subangular blocky structure; firm; many fine dendritic tubular pores; 1 percent fine prominent irregular yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/6) masses of oxidized iron in the matrix; strongly acid; clear smooth boundary.
Btg2—45 to 56 inches; light brownish gray (2.5Y 6/2) silt loam; moderate coarse subangular blocky structure; firm; few fine dendritic tubular pores; 15 percent medium prominent irregular yellowish brown (10YR 5/6) and dark yellowish brown

(10YR 4/6) masses of oxidized iron in the matrix; very strongly acid; abrupt smooth boundary.

2Bt1—56 to 66 inches; light yellowish brown (2.5Y 6/4) silt loam; moderate coarse subangular blocky structure; friable; few fine dendritic tubular pores; 15 percent continuous prominent yellowish brown (10YR 5/6) clay films on faces of peds; 10 percent medium prominent irregular light gray (10YR 7/1) iron depletions in the matrix; strongly acid; clear smooth boundary.

2Bt2—66 to 80 inches; brown (10YR 5/3) loam; moderate medium subangular blocky structure; friable; few fine tubular pores; 15 percent continuous prominent yellowish brown (10YR 5/6) clay films on faces of peds; 30 percent coarse distinct irregular light brownish gray (10YR 6/2) iron depletions in the matrix; 2 percent fine prominent dendritic yellowish red (5YR 4/6) masses of oxidized iron on surfaces along pores; strongly acid.

Range in Characteristics

Thickness of the solum: 60 to more than 80 inches
Depth to bedrock: Very deep
Reaction: Strongly acid to slightly acid in the upper part of the profile, except for the surface layer in areas that have been limed; very strongly acid to moderately acid in the lower part
Other: Below a depth of 40 inches, some pedons contain a 2Btx horizon with a matrix that is brittle in up to 40 of the volume. The 2Btx horizon has ranges in color and texture similar to those of the 2Bt and 2BC horizons.

A horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4
Texture—silt loam

BE, Bt, or Bw horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6
Texture—silt loam
Redoximorphic features—iron or clay depletions in shades of brown or gray

E or Eg horizon (where present):
Color—hue of 10YR or 2.5Y, value of 6 or 7, and chroma of 1 to 3
Texture—silt loam or silt
Redoximorphic features—iron or clay depletions in shades of brown or gray

Btg horizon:
Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 or 2
Texture—silt loam or silty clay loam
Redoximorphic features—iron accumulations in shades of brown and red

2Bt or 2BC horizons:
Color—hue of 7.5YR, 10YR, or 2.5Y, value of 4 to 6, and chroma of 3 to 6
Texture—silt loam, silty clay loam, or loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of brown

Lax Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Hills
Position on hillslope: Convex or linear summits
Parent material: Loess over gravelly alluvium or loess over both gravelly residuum and gravelly alluvium

Drainage class: Moderately well drained
Permeability class: Very slow
Soil depth class: Moderately deep to a fragipan
Shrink-swell potential: Low
Slope: 2 to 12 percent
Taxonomic classification: Fine-silty, mixed, semiactive, thermic Typic Fragiudults

Associated Soils

- Brandon soils, which are in positions similar to those of the Lax soils and are well drained
- Hawthorne and Sugargrove soils, which are on side slopes adjacent to the Lax soils and are underlain by bedrock
- Sengtown soils, which are on upland side slopes adjacent to the Lax soils

Typical Pedon

Lax silt loam, 5 to 12 percent slopes, eroded; Benton County, Tennessee; Poplar Creek, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 18 minutes, 56 seconds N. and long. 88 degrees, 0 minutes, 15.8 seconds W.; NAD83.

A—0 to 2 inches; brown (10YR 5/3) silt loam; weak fine granular structure; friable, nonsticky, nonplastic; common fine and common medium roots throughout; strongly acid; abrupt smooth boundary.
E—2 to 8 inches; pale brown (10YR 6/3) silt loam; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; common fine, common medium, and few coarse roots throughout; common fine and common medium tubular pores; strongly acid; clear smooth boundary.
Bt1—8 to 18 inches; strong brown (7.5YR 4/6) silty clay loam; strong fine subangular blocky structure; firm, moderately sticky, moderately plastic; few fine and common medium roots throughout; few fine and few medium tubular pores; 5 percent subangular chert gravel; strongly acid; clear smooth boundary.
Bt2—18 to 26 inches; strong brown (7.5YR 4/6) silty clay loam; strong medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine and few medium roots throughout; few fine tubular pores; 8 percent medium prominent irregular pale brown (10YR 6/3) and light brownish gray (10YR 6/2) iron depletions; 8 percent coarse prominent irregular pale brown (10YR 6/3) and light brownish gray (10YR 6/2) iron depletions; 5 percent subangular chert gravel; very strongly acid; clear smooth boundary.
2Btx1—26 to 36 inches; strong brown (7.5YR 5/6) gravelly silt loam; weak coarse prismatic structure parting to strong fine subangular blocky; very firm, slightly sticky, slightly plastic; few fine roots in cracks; few very fine vesicular pores; 15 percent coarse prominent irregular light brownish gray (10YR 6/2) iron depletions; 30 percent subangular chert gravel; very strongly acid; abrupt smooth boundary.
2Btx2—36 to 80 inches; strong brown (7.5YR 5/6) very gravelly silt loam; weak coarse and very coarse prismatic structure parting to strong fine subangular blocky; very firm, slightly sticky, slightly plastic; few fine and few medium roots between peds; few very fine vesicular pores; 15 percent coarse prominent irregular light brownish gray (10YR 6/2) iron depletions; 55 percent subangular chert gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches
Depth to bedrock: Greater than 60 inches
Rock fragments: 0 to 15 percent in the A, Bt, and Btx horizons and 15 to 80 percent in the 2Btx horizon

Reaction: Strongly acid or very strongly acid, except where lime has been applied
Depth to fragipan: 14 to 36 inches

A horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4
Texture—silt loam

E horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4
Texture—silt loam or silt

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 6
Texture—silty clay loam or silt loam
Redoximorphic features—iron depletions in shades of gray; iron accumulations in shades of red, yellow, and brown

Btx horizon or 2Btx horizon (where present):
Color—hue of 10YR or 7.5YR, value of 5 or 6, and chroma of 4 to 6
Texture (fine-earth fraction)—silt loam or silty clay loam
Redoximorphic features—clay or iron depletions in shades of gray; iron accumulations in shades of yellow, brown, or red

Lexington Series

Ma*jor land resource area:* 134—Southern Mississippi Valley Loess
Geomorphic setting: Divides
Position on hillslope: Convex or linear summits
Parent material: Loess over loamy marine deposits
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 8 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Ultic Hapludalfs

Associated Soils

- Deanburg soils, which are in the higher, convex positions and are fine-loamy
- Smithdale soils, which are in the steeper positions and are fine-loamy
- Providence soils, which are in positions similar to those of the Lexington soils and have a fragipan

Typical Pedon

Lexington silt loam, 5 to 8 percent slopes, eroded; Henry County, Tennessee; Paris, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 21 minutes, 11.42 seconds N. and long. 88 degrees, 22 minutes, 0.51 seconds W.; NAD83.

Ap—0 to 6 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium granular structure; very friable; many fine and many very fine roots throughout; slightly acid; clear smooth boundary.
Bt1—6 to 18 inches; strong brown (7.5YR 4/6) silty clay loam; moderate medium subangular blocky structure; firm; common fine and common very fine roots throughout; few fine interstitial pores; moderately acid; clear smooth boundary.

Bt2—18 to 29 inches; strong brown (7.5YR 4/6) silt loam; moderate medium subangular blocky structure; friable; many fine and many very fine roots throughout; few fine interstitial pores; moderately acid; gradual smooth boundary.

2Bt3—29 to 35 inches; strong brown (7.5YR 4/6) silt loam, more than 15 percent sand; moderate medium subangular blocky structure; friable; few fine and few very fine roots throughout; few fine interstitial pores; 5 percent distinct pale brown (10YR 6/3) skeletans on vertical faces of peds; strongly acid; clear smooth boundary.

2Bt4—35 to 47 inches; strong brown (7.5YR 4/6) loam; weak medium subangular blocky structure; friable; many very fine vesicular pores; strongly acid; gradual smooth boundary.

2Bt5—47 to 80 inches; yellowish red (5YR 4/6) loam, becoming sandier with depth; weak medium subangular blocky structure; friable; many very fine vesicular pores; 5 percent medium prominent light yellowish brown (10YR 6/4) masses of oxidized iron in the matrix; strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 60 inches
Depth to bedrock: Greater than 60 inches
Depth to contrasting soil material: 48 inches to material having more than 15 percent sand
Reaction: Moderately acid to very strongly acid
Other: Lamellae below a depth of 60 inches in some pedons

Ap horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 2 to 6
Texture—silt loam or silty clay loam

Bt horizon:
Color—hue of 10YR to 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—silt loam or silty clay loam

2Bt horizon:
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8
Texture—sandy loam, silt loam, loam, sandy clay loam, or clay loam

Lobelville Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Flood plains
Position on landform: Linear areas
Parent material: Gravelly alluvium
Drainage class: Moderately well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 3 percent
Taxonomic classification: Fine-loamy, siliceous, active, thermic Fluvaquentic Dystrudepts

Associated Soils

- Chenneby soils, which contain less gravel than the Lobelville soils
- Humphreys soils, which are on terraces adjacent to the Lobelville soils
- Riverby soils, which are on levees and in old channels
- Ennis soils, which are in the higher positions and are well drained

Typical Pedon

Lobelville silt loam, 0 to 3 percent slopes, occasionally flooded; Benton County, Tennessee; Harmon Creek, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 11 minutes, 9.5 seconds N. and long. 87 degrees, 58 minutes, 56.9 seconds W.; NAD83.

Ap—0 to 6 inches; brown (10YR 4/3) silt loam; weak fine subangular blocky and moderate medium granular structure; friable, nonsticky, nonplastic; common fine and few medium roots throughout; 1 percent fine distinct irregular pale brown (10YR 6/3) iron depletions; 3 percent subrounded cobbles and 10 percent subrounded chert gravel; slightly acid; clear smooth boundary.

Bw1—6 to 14 inches; yellowish brown (10YR 5/4) gravelly silt loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; common fine roots throughout; common fine tubular pores; 1 percent fine distinct irregular strong brown (7.5YR 4/6) masses of oxidized iron lining pores; 1 percent fine distinct irregular grayish brown (10YR 5/2) iron depletions; 1 percent fine distinct irregular strong brown (7.5YR 4/6) masses of oxidized iron on faces of peds; 15 percent subrounded chert gravel; slightly acid; clear smooth boundary.

Bw2—14 to 23 inches; dark yellowish brown (10YR 4/6) gravelly loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; few fine roots throughout; common fine tubular pores; 15 percent fine distinct irregular pale brown (10YR 6/3) and light brownish gray (10YR 6/2) iron depletions; 1 percent fine distinct irregular strong brown (7.5YR 4/6) masses of oxidized iron on faces of peds; 1 percent fine distinct irregular strong brown (7.5YR 4/6) masses of oxidized iron lining pores; 30 percent subrounded chert gravel; moderately acid; clear smooth boundary.

Bw3—23 to 34 inches; dark yellowish brown (10YR 4/6) gravelly loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; few fine roots throughout; few fine tubular pores; 8 percent fine distinct irregular pale brown (10YR 6/3) and light brownish gray (10YR 6/2) iron depletions; 7 percent medium distinct irregular pale brown (10YR 6/3) and light brownish gray (10YR 6/2) iron depletions; 1 percent medium distinct spherical very dark gray (10YR 3/1) iron-manganese concretions in the matrix; 20 percent subrounded chert gravel; strongly acid; abrupt smooth boundary.

Bg—34 to 48 inches; grayish brown (10YR 5/2) gravelly silt loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; few very fine tubular pores; 13 percent medium distinct spherical very dark gray (10YR 3/1) iron-manganese concretions in the matrix; 12 percent coarse distinct spherical very dark gray (10YR 3/1) iron-manganese concretions in the matrix; 8 percent fine faint irregular light brownish gray (10YR 6/2) iron depletions; 7 percent medium faint irregular light brownish gray (10YR 6/2) iron depletions; 20 percent subrounded chert gravel; strongly acid; gradual smooth boundary.

Cg—48 to 59 inches; grayish brown (2.5Y 5/2) very gravelly silt loam; massive; friable, nonsticky, nonplastic; 15 percent medium faint irregular light brownish gray (10YR 6/2) iron depletions; 15 percent fine prominent irregular dark yellowish brown (10YR 4/6) masses of oxidized iron in the matrix; 40 percent subrounded chert gravel; strongly acid; clear smooth boundary.

C—59 to 80 inches; yellowish brown (10YR 5/4) very gravelly loam; massive; friable, nonsticky, nonplastic; 8 percent fine distinct irregular light brownish gray (10YR 6/2) iron depletions; 7 percent medium distinct irregular light brownish gray (10YR 6/2) iron depletions; 50 percent subrounded chert gravel; strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 20 inches
Depth to bedrock: Greater than 6 feet

Rock fragments: 5 to 25 percent in the A and Bw horizons, 10 to 30 percent in the Bg horizon, and 35 to 90 percent in the C and Cg horizons
Reaction: Very strongly acid to slightly acid

Ap horizon:
Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4
Texture (fine-earth fraction)—silt loam, loam, or, rarely, sandy loam

Bw horizon:
Color—hue of 10YR, value of 4 to 6, and chroma of 3 to 6
Texture (fine-earth fraction)—silt loam, loam, silty clay loam, or clay loam
Redoximorphic features (where present)—iron depletions in shades of gray or brown

Bg horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2
Texture (fine-earth fraction)—silt loam, silty clay loam, loam, or clay loam
Redoximorphic features—iron accumulations in shades of brown or red

C and Cg horizons:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 to 4
Texture (fine-earth fraction)—silt loam, loam, clay loam, or sandy loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of yellow, brown, or red

Loring Series

Ma*jor land resource area:* 134—Southern Mississippi Valley Loess
Geomorphic setting: Divides
Position on hillslope: Concave summits
Parent material: Loess over loamy marine deposits
Drainage class: Moderately well drained
Permeability class: Slow
Soil depth class: Moderately deep to a fragipan
Shrink-swell potential: Low
Slope: 0 to 8 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Oxyaquic Fragiudalfs

Associated Soils

- Grenada soils, which are in the slightly lower positions
- Kurk soils, which are in the lower positions and are somewhat poorly drained
- Feliciana soils, which are in the higher positions and are well drained

Typical Pedon

Loring silt loam, 2 to 5 percent slopes, eroded, in an area of close-grown crops; Henry County, Tennessee; Osage, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 20 minutes, 26.26 seconds N. and long. 88 degrees, 24 minutes, 35.65 seconds W.; NAD83.

Ap—0 to 8 inches; brown (10YR 4/3) silt loam; moderate coarse angular blocky and moderate medium granular structure; friable, slightly sticky, slightly plastic; common fine and common medium roots throughout; moderately acid; abrupt smooth boundary.
Bt1—8 to 16 inches; strong brown (7.5YR 4/6) silt loam; moderate coarse subangular

blocky structure; friable, slightly sticky, slightly plastic; common fine roots throughout; moderately acid; clear smooth boundary.

Bt2—16 to 23 inches; dark yellowish brown (10YR 4/6) silt loam; moderate coarse subangular blocky structure; friable, slightly sticky, slightly plastic; few fine roots between peds; few fine and few medium tubular pores; moderately acid; clear smooth boundary.

Bt3—23 to 27 inches; yellowish brown (10YR 5/4) silt loam; moderate coarse subangular blocky structure; friable, slightly sticky, slightly plastic; common fine tubular pores; 10 percent discontinuous distinct light yellowish brown (10YR 6/4) and pale brown (10YR 6/3) silt coats on faces of peds; moderately acid; clear smooth boundary.

Btx1—27 to 52 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate coarse prismatic structure parting to moderate medium and fine angular blocky; friable, moderately sticky, moderately plastic; many fine and many medium tubular pores; 20 percent discontinuous distinct light brownish gray (10YR 6/2) clay films on faces of peds and 15 percent discontinuous distinct light brownish gray (10YR 6/2) silt coats on faces of peds; strongly acid; gradual smooth boundary.

2Btx2—52 to 58 inches; strong brown (7.5YR 4/6) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and many medium tubular pores; strongly acid; gradual smooth boundary.

2Btx3—58 to 72 inches; strong brown (7.5YR 4/6) loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and many medium tubular pores; strongly acid.

Range in Characteristics

Thickness of the solum: 60 to more than 80 inches
Depth to bedrock: Greater than 60 inches
Depth to fragipan: 14 to 35 inches
Reaction: Moderately acid to very strongly acid, except where the surface layer has been limed

Ap horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 2 to 6
Texture—silt loam

Bt horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6
Texture—silt loam or silty clay loam
Mottles (where present)—shades of brown
Redoximorphic features (where present)—iron or clay depletions in shades of gray in the lower part of the horizon

Btx horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6; or no dominant matrix color and multicolored in shades of yellow, brown, and gray
Texture—silt loam or silty clay loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of yellow or brown

2Btx horizon (present below a depth of 48 inches in some pedons):
Color—hue of 10YR to 7.5YR, value of 4 or 5, and chroma of 4 to 6; or no dominant matrix color and multicolored in shades of yellow, brown, gray, or red
Texture—silt loam, loam, or sandy loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of yellow, brown, or red

Luverne Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Hills
Position on hillslope: Convex shoulders and backslopes
Parent material: Clayey marine deposits
Drainage class: Well drained
Permeability class: Moderately slow
Soil depth class: Very deep
Shrink-swell potential: Moderate
Slope: 8 to 60 percent
Taxonomic classification: Fine, mixed, semiactive, thermic Typic Hapludults

Associated Soils

- Dulac soils, which are in the less sloping positions and have a fragipan
- Smithdale soils, which are in positions similar to those of the Luverne soils and have a lower content of clay
- Tippah soils, which are in the less sloping positions and have a lower content of clay than the Luverne soils

Typical Pedon

Luverne fine sandy loam in an area of Smithdale, Remlik, and Luverne soils, 25 to 60 percent slopes; Henry County, Tennessee; Manleyville, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 12 minutes, 40.72 seconds N. and long. 88 degrees, 8 minutes, 42.36 seconds W.; NAD83.

A1—0 to 1 inch; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine granular structure; very friable; many fine and many very fine roots throughout; strongly acid; abrupt smooth boundary.

A2—1 to 4 inches; brown (7.5YR 5/4) fine sandy loam; moderate medium granular structure; very friable; common fine and common very fine roots throughout; few fine tubular pores; strongly acid; abrupt smooth boundary.

BE—4 to 12 inches; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; friable; common fine and common medium roots throughout; few fine tubular pores; strongly acid; clear smooth boundary.

Bt1—12 to 21 inches; yellowish red (5YR 5/6) clay; 5 percent fine distinct yellow (10YR 7/6) mottles; moderate medium subangular blocky structure; very firm; few fine, few medium, and few very fine roots throughout; common fine tubular pores; strongly acid; gradual smooth boundary.

Bt2—21 to 37 inches; yellowish red (5YR 5/8) clay; 10 percent medium prominent very pale brown (10YR 8/2) and 10 percent fine distinct yellow (10YR 7/6) mottles; moderate medium subangular blocky structure; firm; few fine, few medium, and few very fine roots throughout; few fine tubular pores; 30 percent continuous distinct yellowish red (5YR 5/6) clay films on faces of peds; strongly acid; gradual smooth boundary.

BC—37 to 48 inches; 15 percent light gray (5YR 7/1), 30 percent red (2.5YR 4/8), 25 percent yellowish red (5YR 5/8), and 30 percent strong brown (7.5YR 5/8) clay loam; moderate medium subangular blocky structure; firm; few very fine roots throughout; few fine tubular pores; very strongly acid; gradual smooth boundary.

C—48 to 80 inches; light gray (10YR 7/1) stratified layers of clay to fine sandy loam, averaging loam; massive; firm; 25 percent coarse prominent reddish yellow (7.5YR 6/8) masses of oxidized iron in the matrix; many fine flakes of mica; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 50 inches
Depth to bedrock: Greater than 60 inches
Rock fragments: 0 to 10 percent, by volume; 2 millimeters to 5 centimeters throughout
Reaction: Strongly acid or very strongly acid

A horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 4
Texture—loamy fine sand, sandy loam, fine sandy loam, or loamy sand

BE (where present):
Color—hue of 10YR or 7.5YR, value of 5 or 6, chroma of 4 to 8
Texture—loamy fine sand, fine sandy loam, sandy loam, or loam

Bt horizon:
Color—hue of 10YR, 2.5YR, or 5YR, value of 3 to 5, and chroma of 4 to 8
Texture—clay loam, sandy clay, or clay

BC horizon:
Color—hue of 5YR or 7.5YR, value of 5 to 7, and chroma of 6 to 8; or multicolored in shades of red, brown, gray, and yellow
Texture—clay loam or sandy clay loam

C horizon:
Color—hue of 2.5YR, 5YR, or 7.5YR, value of 4 to 6, and chroma of 5 to 8; or shades of gray
Texture—loamy sand to clay

Minvale Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Terraces and side slopes
Position on hillslope: Linear footslopes
Parent material: Loamy colluvium
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 5 to 20 percent
Taxonomic classification: Fine-loamy, siliceous, subactive, thermic Typic Paleudults

Associated Soils

- Hawthorne and Sugargrove soils, which are on side slopes adjacent to the Minvale soils and are underlain by bedrock
- Sengtown soils, which are on upland side slopes adjacent to the Minvale soils
- Tarklin soils, which are in positions similar to those of the Minvale soils and have a fragipan

Typical Pedon

Minvale gravelly silt loam in an area of Tarklin-Minvale complex, 12 to 35 percent slopes; Benton County, Tennessee; McKinnon, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 15 minutes, 15.3 seconds N. and long. 87 degrees, 58 minutes, 29.3 seconds W.; NAD83.

A—0 to 5 inches; brown (10YR 5/3) gravelly silt loam; weak fine granular structure; friable, nonsticky, nonplastic; many fine and many medium roots throughout; common fine tubular pores; 18 percent subangular chert gravel; moderately acid; clear smooth boundary.

E—5 to 11 inches; pale brown (10YR 6/3) gravelly silt loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; many fine, common medium, and common very fine roots throughout; common fine tubular pores; 18 percent subangular chert gravel; strongly acid; clear smooth boundary.

BE—11 to 18 inches; light yellowish brown (10YR 6/4) gravelly silt loam; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; common fine and common medium roots throughout; common fine tubular pores; 20 percent subangular chert gravel; strongly acid; clear smooth boundary.

Bt1—18 to 36 inches; strong brown (7.5YR 5/6) gravelly silt loam; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; few fine, few medium, and few coarse roots throughout; common fine and common medium tubular pores; 10 percent patchy distinct strong brown (7.5YR 4/6) clay films on faces of peds; 25 percent subangular chert gravel; very strongly acid; gradual smooth boundary.

Bt2—36 to 50 inches; strong brown (7.5YR 4/6) gravelly silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few medium roots around fragments; few fine tubular pores; 35 percent continuous distinct strong brown (7.5YR 5/6) clay films on faces of peds; 30 percent subangular chert gravel; very strongly acid; gradual smooth boundary.

Bt3—50 to 62 inches; dark yellowish brown (10YR 4/6) gravelly silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few medium roots around fragments; few fine tubular pores; 40 percent continuous distinct strong brown (7.5YR 4/6) clay films on faces of peds and 10 percent patchy distinct light yellowish brown (10YR 6/4) silt coats on faces of peds; 25 percent subangular chert gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 60 inches

Depth to bedrock: Greater than 60 inches

Rock fragments: 15 to 35 percent to a depth of 40 inches; up to 50 percent below a depth of 40 inches

Reaction: Strongly acid or very strongly acid, except where lime has been applied

Other: Some pedons have a transitional horizon between the A or E horizon and the Bt horizon.

A horizon:

Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 2 to 4; or hue of 10YR, value of 6, and chroma of 4

Texture (fine-earth fraction)—silt loam, loam, or, rarely, silty clay loam

E or BE horizon (where present):

Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4

Texture (fine-earth fraction)—loam or silt loam

Bt horizon:

Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 4 to 8

Texture to a depth of 40 inches (fine-earth fraction)—silty clay loam, silt loam, loam, or, rarely, clay loam

Texture below a depth of 40 inches (fine-earth fraction)—silty clay, clay, silty clay loam, silt loam, loam, or, rarely, clay loam

Redoximorphic features (present in the lower part of the Bt horizon in some pedons)—iron or clay depletions in shades of gray and yellow; iron accumulations in shades of brown and red

Nugent Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Flood plains and alluvial fans
Position on landform: Convex or linear areas
Parent material: Sandy alluvium over loamy alluvium
Drainage class: Excessively drained
Permeability class: Moderately rapid
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 3 percent
Taxonomic classification: Sandy, siliceous, thermic Typic Udifluvents

Associated Soils

- Cascilla soils, which are in the lower positions and are silty
- Iuka soils, which are in lower positions and are moderately well drained
- Ochlockonee soils, which are in slightly lower positions
- Chenneby soils, which are in the lower positions, are silty, and are moderately well drained

Typical Pedon

Nugent loamy sand, 0 to 3 percent slopes, occasionally flooded; Benton County, Tennessee; Osage, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 20 minutes, 16.3 seconds N. and long. 88 degrees, 25 minutes, 59.7 seconds W.; NAD83.

Ap—0 to 8 inches; dark yellowish brown (10YR 4/4) loamy sand; weak fine granular structure; very friable; many fine roots at the top of the horizon; strongly acid; clear smooth boundary.

C1—8 to 19 inches; yellowish brown (10YR 5/4) fine sand; 3 percent coarse distinct irregular very pale brown (10YR 7/3) mottles; single grain; loose; common fine roots throughout; strongly acid; clear smooth boundary.

C2—19 to 30 inches; dark yellowish brown (10YR 4/4) loamy sand; 3 percent coarse distinct irregular very pale brown (10YR 7/3) mottles; single grain; loose; strongly acid; clear smooth boundary.

C3—30 to 35 inches; yellowish brown (10YR 5/4) sand; 5 percent coarse distinct irregular very pale brown (10YR 7/3) mottles; single grain; loose; strongly acid; abrupt smooth boundary.

C4—35 to 42 inches; dark yellowish brown (10YR 4/4) loam; massive; thin strata of loamy sand and sandy loam (bedding planes); strongly acid; clear smooth boundary.

C5—42 to 72 inches; yellowish brown (10YR 5/4) silt loam; 1 percent fine distinct irregular pale brown (10YR 6/3) mottles; massive; manganese coatings in the matrix; moderately acid.

Range in Characteristics

Depth to bedrock: Very deep
Reaction: Very strongly acid to slightly acid

Other: Some pedons have a higher content of clay in the subsoil at depths of greater than 40 inches. These are former Chenneby, Cascilla, and Ochlockonee soils that overwashed from large-gully outwash and soil material.

Ap horizon:
Color—hue of 10YR, value of 4 to 7, and chroma of 2 to 4
Texture—silt loam, loam fine sandy loam, sandy loam, loamy sand, loamy fine sand, or sand

C horizon:
Color—hue of 10YR, value of 4 to 7, and chroma of 3 to 6; or hue of 7.5YR, value of 4 or 5, and chroma of 4 to 8
Texture—dominantly sand or loamy sand with thin strata of fine sandy loam, sandy loam, loam, or silt loam

Ochlockonee Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Flood plains
Position on landform: Linear areas
Parent material: Coarse-loamy alluvium
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 3 percent
Taxonomic classification: Coarse-loamy, siliceous, active, acid, thermic Typic Udifluvents

Associated Soils

- Cascilla soils, which have a higher content of silt than the Ochlockonee soils
- Iuka soils, which are in the slightly lower positions
- Nugent soils, which are on levees

Typical Pedon

Ochlockonee fine sandy loam, 0 to 3 percent slopes, rarely flooded; Henry County, Tennessee; Osage, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 19 minutes, 51.11 seconds N. and long. 88 degrees, 24 minutes, 52.2 seconds W.; NAD83.

Ap—0 to 8 inches; brown (10YR 4/3) fine sandy loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; many fine and many very fine roots throughout; common fine tubular pores; moderately acid; clear smooth boundary.
C1—8 to 23 inches; dark yellowish brown (10YR 4/4) stratified layers of fine sandy loam, loam, silt loam, and sandy loam, averaging sandy loam; massive; friable, nonsticky, nonplastic; common fine and common very fine roots throughout; common fine and common very fine tubular pores; massive parting to bedding planes; strongly acid; gradual smooth boundary.
C2—23 to 47 inches; yellowish brown (10YR 5/4) sandy loam; massive; friable, nonsticky, nonplastic; few fine and few very fine roots throughout; few very fine tubular pores; 3 percent fine faint irregular brown (10YR 5/3) iron depletions in the matrix; massive parting to bedding planes; strongly acid; gradual smooth boundary.

C3—47 to 58 inches; dark yellowish brown (10YR 4/4) fine sandy loam; massive; friable, nonsticky, nonplastic; few very fine roots throughout; few very fine tubular pores; 3 percent fine distinct irregular grayish brown (10YR 5/2) iron depletions in the matrix; massive parting to bedding planes; strongly acid; gradual smooth boundary.

C4—58 to 80 inches; brown (10YR 5/3) loam; massive; friable, nonsticky, nonplastic; many fine and many very fine dendritic tubular pores; 15 percent medium distinct irregular light brownish gray (10YR 6/2) iron depletions in the matrix; very strongly acid.

Range in Characteristics

Depth to bedrock: Very deep
Rock fragments: Gravelly strata below a depth of 40 inches in some pedons
Reaction: Very strongly acid to slightly acid in the A or Ap horizon; very strongly acid or strongly acid below the A or Ap horizon

A or Ap horizon:
Color—hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 4
Texture—sandy loam, fine sandy loam, loamy fine sand, loamy sand, loam, or silt loam

C and C horizon:
Color—hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 8
Texture—sandy loam, fine sandy loam, loamy fine sand, loamy sand, loam, or silt loam with thin strata of finer or coarser material in most pedons
Redoximorphic features (where present)—iron or clay depletions in shades of brown and yellow; iron accumulations in shades of gray below a depth of 20 inches

Paden Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Terraces
Position on hillslope: Convex or linear footslopes
Parent material: Silty alluvium
Drainage class: Moderately well drained
Permeability class: Very slow
Soil depth class: Shallow to a fragipan
Shrink-swell potential: Low
Slope: 0 to 12 percent
Taxonomic classification: Fine-silty, mixed, semiactive, thermic Glossic Fragiudults

Associated Soils

- Humphreys and Wolftever soils, which are in the lower terrace positions
- Lax soils, which are in the higher upland positions
- Armour soils, which are in terrace positions adjacent to the Paden soils and are well drained

Typical Pedon

Paden silt loam, 2 to 5 percent slopes, eroded; Benton County, Tennessee; Poplar Creek, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 22 minutes, 19.6 seconds N. and long. 88 degrees, 4 minutes, 21.2 seconds W.; NAD83.

Ap—0 to 7 inches; dark yellowish brown (10YR 4/4) silt loam; weak fine subangular blocky structure; friable; moderately acid; abrupt smooth boundary.

Bt—7 to 18 inches; yellowish brown (10YR 5/6) silt loam; moderate medium subangular blocky structure; friable; strongly acid; clear smooth boundary.

Btx/E—18 to 30 inches; yellowish brown (10YR 5/6) silt loam (Btx); moderate medium subangular blocky structure; firm; common fine vesicular and common fine tubular pores; 30 percent discontinuous distinct brown (10YR 5/3) clay films on faces of peds and 30 percent discontinuous distinct brown (10YR 5/3) clay films on surfaces along pores; 25 percent fine dendritic grayish brown (10YR 5/2) clay depletions; 20 percent fine dendritic gray (10YR 6/1) clay depletions; 20 percent medium dendritic light brownish gray (10YR 6/2) clay depletions; pale brown (10YR 6/3) silt loam (E) in vertical seams; moderate medium subangular blocky structure; friable; strongly acid; clear smooth boundary.

Btx1—30 to 51 inches; yellowish brown (10YR 5/4) silt loam; moderate very coarse prismatic structure; firm; common fine and common medium vesicular pores; 40 percent discontinuous distinct brown (10YR 5/3) clay films on faces of peds; 40 percent discontinuous distinct brown (10YR 5/3) clay films on surfaces along pores; 15 percent fine distinct cylindrical gray (10YR 6/1) clay depletions in the matrix; 1 percent fine distinct irregular strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; strongly acid; gradual smooth boundary.

Btx2—51 to 80 inches; yellowish brown (10YR 5/4) silt loam; moderate very coarse prismatic structure parting to moderate thick platy; firm; common fine and common medium vesicular pores; 35 percent discontinuous distinct brown (10YR 5/3) clay films on faces of peds; 35 percent discontinuous distinct brown (10YR 5/3) clay films on surfaces along pores; 25 percent coarse distinct irregular strong brown (7.5YR 5/6) masses of oxidized iron in the matrix; 15 percent coarse distinct irregular gray (10YR 6/1) clay depletions in the matrix; 1 percent fine prominent dendritic light gray (2.5Y 7/1) clay depletions in the matrix; strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 60 inches
Depth to bedrock: Greater than 60 inches
Depth to fragipan: 16 to 36 inches
Rock fragments: 0 to 10 percent gravel in the upper part of the solum; 0 to 35 percent in the 2Bt horizon
Reaction: Strongly acid or very strongly acid, except where the surface layer has been limed

A or Ap horizon:
Color—hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 2 to 6
Texture—silt loam or silty clay loam

E horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4
Texture—silt loam

Bt horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 to 8
Texture—silt loam or silty clay loam

E/Btx or Btx/E horizon:
Color—(E part) hue of 10YR to 2.5YR, value of 6 or 7, and chroma of 1 to 3, or hue of 10YR or 2.5YR, value of 5, chroma of 1 or 2; (Bt part) hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 to 6
Texture—silt loam or silty clay loam

Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of brown

Btx horizon:
Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 to 6
Texture—silt loam, clay loam, or silty clay loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of brown or red

2Bt horizon (where present):
Color—hue of 10YR to 5YR, value of 4 to 6, and chroma of 4 to 8
Texture—clay loam, sandy clay loam, sandy clay, or clay
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of brown or red

Providence Series

Ma*jor land resource area:* 134—Southern Mississippi Valley Loess
Geomorphic setting: Terraces, divides, and hills
Position on hillslope: Concave, convex, or linear summits, shoulders, backslopes, and footslopes
Parent material: Loess over loamy marine deposits
Drainage class: Moderately well drained
Permeability class: Very slow
Soil depth class: Shallow to a fragipan
Shrink-swell potential: Low
Slope: 0 to 15 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Oxyaquic Fragiudalfs

Associated Soils

- Lexington soils, which do not have a fragipan and are well drained
- Smithdale soils, which are on side slopes adjacent to the Providence soils and are well drained

Typical Pedon

Providence silt loam, 2 to 5 percent slopes, eroded; Benton County, Tennessee; Manleyville, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 9 minutes, 38.9 seconds N. and long. 88 degrees, 9 minutes, 39.99 seconds W.; NAD83.

Ap—0 to 6 inches; dark yellowish brown (10YR 4/4) silt loam; moderate fine granular structure; very friable, slightly sticky, nonplastic; many fine and many very fine roots throughout; slightly acid; abrupt smooth boundary.
Bt1—6 to 11 inches; dark yellowish brown (10YR 4/6) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine roots throughout; few fine tubular pores; moderately acid; clear smooth boundary.
Bt2—11 to 18 inches; yellowish brown (10YR 5/6) silt loam; moderate coarse and medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine roots throughout; few fine tubular pores; 1 percent fine distinct irregular dark yellowish brown (10YR 4/6) masses of oxidized iron; 1 percent fine distinct irregular light yellowish brown (10YR 6/4) masses of oxidized iron; strongly acid; clear smooth boundary.
Btx1—18 to 32 inches; yellowish brown (10YR 5/6) silty clay loam; weak coarse and medium subangular blocky structure; firm, moderately sticky, moderately plastic; few very fine roots throughout; common fine irregular pores; 25 percent

medium distinct irregular gray (10YR 6/1) iron depletions; 15 percent fine distinct irregular grayish brown (10YR 5/2) iron depletions; 1 percent fine distinct irregular strong brown (7.5YR 5/6) masses of oxidized iron; strongly acid; gradual smooth boundary.

2Btx2—32 to 44 inches; yellowish brown (10YR 5/4) silt loam, more than 15 percent sand; moderate medium prismatic structure parting to weak coarse and medium subangular blocky; firm, slightly sticky, slightly plastic; few very fine roots throughout; few fine irregular pores; 5 percent medium distinct irregular gray (10YR 6/1) and light brownish gray (10YR 6/2) iron depletions; 1 percent medium distinct irregular yellowish brown (10YR 5/8) masses of oxidized iron; strongly acid; gradual smooth boundary.

2Btx3—44 to 62 inches; yellowish brown (10YR 5/4) loam; moderate coarse prismatic structure parting to moderate medium subangular blocky; firm, slightly sticky, slightly plastic; few very fine roots throughout; few fine irregular pores; 15 percent medium prominent irregular yellowish red (5YR 4/6) masses of oxidized iron; 10 percent medium distinct irregular gray (10YR 6/1) and light gray (10YR 7/1) iron depletions; 1 percent medium distinct irregular yellowish brown (10YR 5/8) masses of oxidized iron; strongly acid; gradual smooth boundary.

2Bt—62 to 80 inches; mottled yellowish red (5YR 5/8), light gray (10YR 7/1), gray (10YR 6/1), light brownish gray (10YR 6/2), red (2.5YR 4/8), and yellowish brown (10YR 5/6) sandy clay loam; colors in roughly equal proportions, but less light gray (10YR 7/1); weak medium subangular blocky structure; friable, moderately sticky, slightly plastic; strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 60 inches
Depth to bedrock: Greater than 60 inches
Depth to fragipan: 12 to 38 inches
Depth to contrasting soil material: Less than 48 inches to material having more than 15 percent sand
Reaction: Moderately acid to very strongly acid, except where the surface layer has been limed

Ap or A horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 3 to 6
Texture—silt loam or silty clay loam

E horizon (where present):
Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4
Texture—silt loam

Bt horizon:
Color—hue of 10YR to 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—silt loam or silty clay loam
Mottles (where present)—shades of brown
Redoximorphic features (where present)—iron or clay depletions in shades of brown; iron accumulations in shades of brown

Btx and 2Btx horizon:
Color—hue of 10YR to 5YR, value of 4 or 5, and chroma of 4 to 8; or multicolored in shades of brown, gray, yellow, or red
Texture—silt loam or silty clay loam in the upper part; silt loam, silty clay loam, loam, clay loam, sandy clay loam, or sandy loam in the lower part
Redoximorphic features—iron or clay depletions in shades of gray and brown; iron accumulations in shades of brown, yellow, or red

2Bt horizon (where present):
Color—hue of 10YR to 2.5YR, value of 4 or 5, and chroma of 4 to 8; or multicolored in shades of red, brown, yellow, or gray
Texture—sandy clay loam, clay loam, loam, sandy loam, or silt loam
Redoximorphic features (where present)—iron or clay depletions in shades of gray or brown; iron accumulations in shades of red, brown, or yellow

Pruitton Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Flood plains
Position on landform: Linear areas
Parent material: Loamy alluvium over gravelly alluvium
Drainage class: Well drained
Permeability class: Moderately rapid
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 3 percent
Taxonomic classification: Fine-loamy, siliceous, semiactive, thermic Fluventic Dystrudepts

Associated Soils

- Cascilla soils, which contain less gravel than the Pruitton soils
- Ennis soils, which contain more gravel than the Pruitton soils
- Lobelville soils, which are in the lower positions

Typical Pedon

Pruitton silt loam, 0 to 3 percent slopes, occasionally flooded; Benton County, Tennessee; Big Sandy, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 12 minutes, 3.7 seconds N. and long. 88 degrees, 5 minutes, 19.3 seconds W.; NAD83.

Ap—0 to 6 inches; dark yellowish brown (10YR 4/4) silt loam; weak fine subangular blocky and granular structure; very friable, nonsticky, nonplastic; many fine roots throughout; moderately acid; clear smooth boundary.
Bw1—6 to 17 inches; dark yellowish brown (10YR 4/6) silt loam that has a high content of very fine sand; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; common fine and few medium roots throughout; few fine tubular pores; strongly acid; clear smooth boundary.
Bw2—17 to 27 inches; yellowish brown (10YR 5/4) silt loam that has a high content of very fine sand; moderate fine subangular blocky structure; friable, nonsticky, nonplastic; few fine roots throughout; common fine tubular pores; 1 percent fine faint irregular brown (10YR 5/3) iron depletions; strongly acid; gradual smooth boundary.
Bw3—27 to 34 inches; yellowish brown (10YR 5/4) loam; moderate fine subangular blocky structure; friable, nonsticky, nonplastic; few fine roots throughout; common fine and few medium tubular pores; 3 percent patchy distinct light yellowish brown (10YR 6/4) skeletans on vertical faces of peds; 1 percent medium faint irregular yellowish brown (10YR 5/6) masses of oxidized iron; 5 percent subrounded gravel chert fragments; very strongly acid; clear smooth boundary.
BC—34 to 51 inches; brown (10YR 5/3) gravelly loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; few fine tubular pores; 3 percent patchy distinct light yellowish brown (10YR 6/4) skeletans on vertical faces of peds; 4 percent fine faint irregular yellowish brown (10YR 5/6) masses of oxidized iron; 1

percent medium distinct irregular light brownish gray (10YR 6/2) iron depletions; 20 percent subrounded chert gravel; very strongly acid; clear smooth boundary.

2C—51 to 80 inches; brown (10YR 5/3) very gravelly loam; massive; nonsticky, nonplastic; few fine vesicular pores; 40 percent subrounded chert gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: 25 to 50 inches
Depth to bedrock: Greater than 60 inches
Rock fragments: 0 to 15 percent, by volume, coarse chert fragments in the A and Bw horizons and 15 to 75 percent, by volume, in the BC and C horizons
Reaction: Very strongly acid to moderately acid

Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4
Texture—silt loam or loam

Bw horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 to 8
Texture (fine-earth fraction)—dominantly silt loam or loam; clay loam or silty clay loam in some pedons

BC horizon (where present):
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 to 8
Texture (fine-earth fraction)—dominantly silt loam, loam, or the gravelly analogs of these textures; clay loam or silty clay loam in some pedons

2C horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 to 6
Texture (fine-earth fraction)—dominantly silt loam, fine sandy loam, or loam but ranges from sandy loam to silty clay loam

Remlik Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Hills
Position on hillslope: Convex backslopes and shoulders
Parent material: Sandy marine deposits over loamy marine deposits
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 25 to 60 percent
Taxonomic classification: Loamy, siliceous, subactive, thermic Arenic Hapludults

Associated Soils

- Luverne soils, which contain more clay than the Remlik soils
- Smithdale soils, which have less sand in the upper part of the profile than the Remlik soils

Typical Pedon

Remlik loamy sand in an area of Smithdale, Remlik, and Luverne soils, 25 to 60 percent slopes; Henry County, Tennessee; Puryear, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 24 minutes, 41.88 seconds N. and long. 88 degrees, 17 minutes, 39.52 seconds W.; NAD83.

A—0 to 3 inches; brown (10YR 4/3) loamy sand; weak medium granular structure; very friable; many fine roots throughout; very strongly acid; abrupt smooth boundary.

E1—3 to 11 inches; yellowish brown (10YR 5/4) loamy sand; weak coarse granular structure; very friable; common fine and common medium roots throughout; very strongly acid; clear smooth boundary.

E2—11 to 25 inches; light yellowish brown (10YR 6/4) loamy sand; weak medium subangular blocky structure parting to weak coarse granular; very friable; common fine roots throughout; few fine vesicular pores; 2 percent rounded stones (quartz fragments); very strongly acid; clear smooth boundary.

Bt1—25 to 38 inches; strong brown (7.5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine and few medium roots throughout; few fine vesicular pores; 10 percent continuous faint strong brown (7.5YR 5/6) clay bridges between sand grains; very strongly acid; gradual smooth boundary.

Bt2—38 to 45 inches; strong brown (7.5YR 4/6) sandy loam; moderate medium subangular blocky structure; friable; few fine roots throughout; few fine vesicular pores; 3 percent discontinuous faint strong brown (7.5YR 4/6) clay bridges between sand grains; very strongly acid; clear smooth boundary.

Bt3 and E—45 to 80 inches; strong brown (7.5YR 4/6) sandy loam (Bt); weak medium and fine subangular blocky structure; very friable; common fine and common medium roots throughout; 3 percent discontinuous faint strong brown (7.5YR 5/6) clay bridges between sand grains; very pale brown (10YR 7/4) sand (E); single grain; loose; very strongly acid.

Range in Characteristics

Thickness of the solum: 30 to more than 60 inches
Rock fragments: 0 to 35 percent gravel throughout
Reaction: Extremely acid to moderately acid

A horizon:
Color—hue of 10YR or 2.5Y, value of 2 to 5, and chroma of 2 to 4
Texture—sand, fine sand, loamy sand, or loamy fine sand

E horizon:
Color—hue of 7.5YR, 10YR, or 2.5Y, value of 5 to 7, and chroma of 3 to 8
Texture—sand, fine sand, loamy sand, or loamy fine sand

BE or EB horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8
Texture (BE)—sandy loam, fine sandy loam, or loam
Texture (EB)—loamy sand or loamy fine sand

Bt horizon:
Color—dominantly hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8. In some pedons, the upper part of the horizon has hue of 5YR. In some pedons, the lower part of the horizon is multicolored in shades of 7.5YR, 10YR, or 2.5Y.
Texture—sandy clay loam, sandy loam, or fine sandy loam

Bt and E horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 8 in the Bt part; hue of 10YR, value of 6 or 7, and chroma of 3 to 8 in the E part
Texture—sandy loam in the Bt part; loamy sand or sand in the E part

BC horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8; or multicolored in shades of 7.5YR, 10YR, or 2.5Y
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

Redoximorphic features (where present)—iron or clay depletions in shades of gray; iron accumulations in shades of red, yellow, or brown

C or 2C horizon (where present):

Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 2 to 8; or no dominant color and shades of these or other hues

Texture—sand, loamy sand, loamy fine sand, sandy loam, fine sandy loam, or sandy clay loam

Redoximorphic features (where present)—iron or clay depletions in shades of gray; iron accumulations in shades of red, yellow, or brown

Riverby Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Flood plains
Position on landform: Linear areas
Parent material: Gravelly alluvium
Drainage class: Excessively drained
Permeability class: Rapid
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 3 percent
Taxonomic classification: Loamy-skeletal, mixed, semiactive, nonacid, thermic Typic Udifluvents

Associated Soils

- Ennis and Pruitton soils, which contain less gravel than the Riverby soils
- Lobelville soils, which are in the lower positions

Typical Pedon

Riverby very gravelly loam in an area of Riverby-Ennis complex, 0 to 3 percent slopes, occasionally flooded; Benton County, Tennessee; McKinnon, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 15 minutes, 28.6 seconds N. and long. 87 degrees, 58 minutes, 49.9 seconds W.; NAD83.

A—0 to 5 inches; dark brown (10YR 3/3) very gravelly loam; moderate fine granular structure; very friable; many fine, common medium, and many very fine roots throughout; 40 percent rounded chert gravel; strongly acid; abrupt smooth boundary.

C1—5 to 19 inches; dark yellowish brown (10YR 4/6) extremely gravelly loamy coarse sand; massive; loose; many fine and many medium roots throughout; 8 percent rounded cobbles and 60 percent rounded chert gravel; strongly acid; gradual smooth boundary.

C2—19 to 72 inches; yellowish brown (10YR 5/6) extremely gravelly loamy coarse sand; massive; loose; few fine, few medium, and few coarse roots throughout; 20 percent rounded cobbles and 55 percent rounded chert gravel; very strongly acid.

Range in Characteristics

Depth to bedrock: Greater than 60 inches
Rock fragments: 10 to 60 percent in the A horizon and 35 to 95 percent in the C horizon; 5 to 50 percent cobbles in the C horizon
Reaction: Strongly acid to neutral

A horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4
Texture (fine-earth fraction)—loamy sand, sandy loam, or loam

C horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 to 6
Texture (fine-earth fraction)—coarse sandy loam or loamy coarse sand

Rosebloom Series

Major land resource area: 134—Southern Mississippi Valley Loess
Geomorphic setting: Flood plains
Position on landform: Concave areas
Parent material: Silty alluvium over loamy alluvium
Drainage class: Poorly drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 2 percent
Taxonomic classification: Fine-silty, mixed, active, acid, thermic Fluvaquentic Endoaquepts

Associated Soils

- Bibb soils, which are in positions similar to those of the Rosebloom soils and are sandy
- Arkabutla, Chenneby, and Enville soils, which are in the higher positions and are somewhat poorly drained

Typical Pedon

Rosebloom silt loam in an area of Rosebloom and Bibb soils, 0 to 2 percent slopes, frequently flooded; Henry County, Tennessee; Cottage Grove, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 26 minutes, 18.6 seconds N. and long. 88 degrees, 27 minutes, 4 seconds W.; NAD83.

A—0 to 6 inches; grayish brown (10YR 5/2) silt loam; weak medium subangular blocky structure; very friable; common fine, common medium, and few coarse roots throughout; 10 percent fine prominent dendritic moderately cemented yellowish red (5YR 4/6) masses of oxidized iron in the matrix with sharp boundaries; strongly acid; clear smooth boundary.

Bg—6 to 28 inches; gray (10YR 6/1) silt loam; weak medium subangular blocky structure; very friable; common fine roots throughout; common fine tubular pores; 40 percent medium prominent irregular moderately cemented strong brown (7.5YR 5/8 and 5/6) masses of oxidized iron on faces of peds; strongly acid; gradual smooth boundary.

Cg1—28 to 60 inches; gray (10YR 5/1) silt loam; massive; loose; few fine roots throughout; few fine tubular pores; 10 percent medium prominent irregular moderately cemented strong brown (7.5YR 5/6) masses of oxidized iron on faces of peds; strongly acid; clear smooth boundary.

Cg2—60 to 80 inches; dark gray (10YR 4/1) fine sandy loam; massive; loose; very strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 24 inches
Depth to bedrock: Greater than 60 inches

Reaction: Strongly acid or very strongly acid, except where the surface layer has been limed

A horizon:
Color—hue of 10YR, value of 4 to 6, and chroma of 1 to 3; hue of 2.5Y, value of 5, and chroma of 2; or multicolored in shades of brown or shades of brown and gray
Texture—silt loam or silty clay loam
Mottles (where present)—shades of brown, red, or yellow

Bg horizon:
Color—hue of 10YR or 2.5Y, value of 6 or 7, and chroma of 1 or 2; or hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 1
Texture—silt loam or silty clay loam
Redoximorphic features—iron accumulations in shades of red, brown, or yellow

Cg or 2Cg horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 or 7, and chroma of 1 or 2
Texture—silt loam, loam, silty clay loam, very fine sandy loam, fine sandy loam, or loamy fine sand
Redoximorphic features—iron accumulations in shades of red, brown, or yellow

Routon Series

Ma*jor land resource area:* 134—Southern Mississippi Valley Loess
Geomorphic setting: Divides
Position on hillslope: Concave summits
Parent material: Loess
Drainage class: Poorly drained
Permeability class: Slow
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 0 to 2 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Typic Epiaqualfs

Associated Soils

- Calloway soils, which are in the slightly higher positions and have a fragipan
- Grenada and Loring soils, which are in the higher positions and have a fragipan
- Kurk soils, which are in the higher positions and are somewhat poorly drained

Typical Pedon

Routon silt loam, 0 to 2 percent slopes; Henry County, Tennessee; Osage, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 20 minutes, 22.98 seconds N. and long. 88 degrees, 23 minutes, 6.11 seconds W.; NAD83.

Ap—0 to 6 inches; grayish brown (10YR 5/2) silt loam; moderate fine granular structure; very friable, nonsticky, nonplastic; many fine and many very fine roots at the top of the horizon; moderately acid; abrupt smooth boundary.
Eg—6 to 17 inches; light gray (2.5Y 7/1) silt; strong fine subangular blocky structure; very friable, nonsticky, nonplastic; few very fine roots throughout; common very fine tubular pores; 10 percent medium distinct light yellowish brown (2.5Y 6/4) masses of oxidized iron on faces of peds; moderately acid; clear smooth boundary.
Btg1—17 to 29 inches; gray (2.5Y 6/1) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, nonplastic; common very fine tubular pores; 1

percent fine prominent yellowish brown (10YR 5/8) masses of oxidized iron on faces of peds; strongly acid; gradual smooth boundary.

Btg2—29 to 37 inches; gray (2.5Y 5/1) silty clay loam; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; few very fine tubular pores; 1 percent fine prominent olive yellow (2.5Y 6/6) masses of oxidized iron on faces of peds; 1 percent medium prominent olive yellow (2.5Y 6/6) masses of oxidized iron on faces of peds; very strongly acid; clear smooth boundary.

Btg3—37 to 51 inches; light brownish gray (2.5Y 6/2) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common very fine tubular pores; 8 percent medium prominent olive yellow (2.5Y 6/6) masses of oxidized iron on faces of peds; 5 percent fine prominent yellowish brown (10YR 5/8) masses of oxidized iron on faces of peds; 20 to 30 percent brittle peds; very strongly acid; clear smooth boundary.

2Bt—51 to 80 inches; brown (10YR 5/3) silty clay loam; moderate coarse subangular blocky structure; friable, moderately sticky, moderately plastic; few fine vesicular pores; 15 percent coarse faint yellowish brown (10YR 5/4) masses of oxidized iron on faces of peds; 10 percent medium distinct irregular gray (10YR 6/1) iron depletions on faces of peds; 1 percent fine prominent strong brown (7.5YR 4/6) masses of oxidized iron on faces of peds; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Depth to bedrock: Greater than 60 inches
Reaction: Slightly acid to very strongly acid in the A, E, and Bt horizons; neutral to strongly acid in the BC and C horizons

Ap horizon:
Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 or 3
Texture—silt loam

Eg horizon:
Color—hue of 10YR or 2.5Y, value of 6 or 7, and chroma of 2; hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1; or neutral in hue and value of 5 to 7
Texture—silt loam or silt
Redoximorphic features—few to many in shades of brown, yellow, or gray

Btg horizon:
Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 2 or less; or neutral in hue and value of 5 to 7
Texture—silt loam or silty clay loam
Redoximorphic features—few to many in shades of brown, yellow, or gray

BC and C horizons (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 to 6; or hue of 7.5YR, value of 4 or 5, and chroma of 4
Texture—silt loam or silty clay loam in the BC part; silt loam in the C part
Redoximorphic features—dominantly few to many in shades of brown, yellow, or gray; or no dominant matrix color and mottled in shades of these colors

2Bt (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 to 6; or hue of 7.5YR, value of 4 or 5, and chroma of 4
Texture—silt loam or silty clay loam
Redoximorphic features—dominantly few to many in shades of brown, yellow, or gray; or no dominant matrix color and mottled in shades of these colors

Saffell Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Hills
Position on hillslope: Convex shoulders and backslopes
Parent material: Gravelly fluviomarine deposits
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 5 to 60 percent
Taxonomic classification: Loamy-skeletal, siliceous, semiactive, thermic Typic Hapludults

Associated Soils

- Brandon soils, which have a silty surface layer that is thicker than that of the Saffell soils
- Lax soils, which have a fragipan and are moderately well drained
- Smithdale soils, which in positions similar to those of the Saffell soils and have less gravel

Typical Pedon

Saffell gravelly silt loam in an area of Saffell-Brandon complex, 5 to 12 percent slopes, eroded; Henry County, Tennessee; Buchanan, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 27 minutes, 43.8 seconds N. and long. 88 degrees, 12 minutes, 33.3 seconds W.; NAD83.

A—0 to 2 inches; dark grayish brown (10YR 4/2) gravelly silt loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and many medium roots throughout; 28 percent rounded chert gravel; strongly acid; clear smooth boundary.

E—2 to 13 inches; light yellowish brown (10YR 6/4) very gravelly silt loam; moderate fine subangular blocky structure; very friable, nonsticky, nonplastic; many fine and common medium roots throughout; common fine tubular pores; 30 percent rounded chert gravel; strongly acid; clear smooth boundary.

BE—13 to 18 inches; yellowish brown (10YR 5/4) very gravelly loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and few medium roots around fragments; common fine tubular pores; 2 percent patchy distinct yellowish brown (10YR 5/6) clay films on vertical faces of peds; 45 percent rounded chert gravel; very strongly acid; abrupt smooth boundary.

Bt1—18 to 29 inches; strong brown (7.5YR 5/6) extremely gravelly sandy clay loam; moderate fine subangular blocky structure; firm, slightly sticky, slightly plastic; few fine and few medium roots around fragments; few fine tubular pores; 4 percent continuous faint strong brown (7.5YR 5/6) clay films on faces of peds and 4 percent continuous faint yellowish red (5YR 4/6) clay films on rock fragments; 80 percent rounded chert gravel; very strongly acid; gradual smooth boundary.

Bt2—29 to 40 inches; strong brown (7.5YR 5/6) extremely gravelly loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and few medium roots around fragments; few fine tubular pores; 4 percent continuous faint strong brown (7.5YR 5/6) clay films on rock fragments; 85 percent rounded chert gravel; very strongly acid; clear smooth boundary.

BCt—40 to 51 inches; strong brown (7.5YR 5/6) extremely gravelly loam; moderate fine subangular blocky structure; friable, nonsticky, nonplastic; few fine and few medium roots around fragments; few fine tubular pores; patchy; 85 percent rounded chert gravel; very strongly acid; gradual smooth boundary.

C—51 to 80 inches; strong brown (7.5YR 5/6) extremely gravelly sandy loam; 75 percent rounded chert gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: 35 to 60 inches
Depth to bedrock: Greater than 60 inches
Rock fragments: 10 to 60 percent in the A, E, and BE horizons; 30 to 80 percent in the Bt and BC horizons; 40 to 80 percent in the C horizon
Reaction: Strongly acid or very strongly acid throughout

A horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4; or hue of 7.5YR, value of 4, chroma of 4
Texture—fine sandy loam, sandy loam, loam, loamy sand, loamy fine sand, silt loam, or the gravelly or very gravelly analogs of these textures

E horizon:
Color—hue of 10YR, value of 5 or 7, and chroma of 2 to 4
Texture—fine sandy loam, sandy loam, loam, loamy fine sand, loamy sand, silt loam, or the gravelly or very gravelly analogs of these textures

BE horizon (where present):
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6
Texture (fine-earth fraction)—sandy loam or loam

Bt horizon:
Color—hue of 7.5YR, 5YR, or 2.5YR, value of 4 to 6, and chroma of 4 to 8
Texture (fine-earth fraction)—sandy clay loam, clay loam, loam, or fine sandy loam
Mottles (where present)—shades of brown, yellow, or red

BCt horizon (where present):
Color—hue of 7.5YR, 5YR, or 2.5YR, value of 4 to 6, and chroma of 4 to 8
Texture (fine-earth fraction)—sandy clay loam, clay loam, loam, or fine sandy loam
Mottles (where present)—shades of brown, yellow, or red

C horizon (where present):
Color—hue of 7.5YR, 5YR, or 2.5YR, value of 4 to 6, and chroma of 4 to 8
Texture (fine-earth fraction)—sandy loam, sandy clay loam, clay loam, loam, or fine sandy loam
Mottles (where present)—shades of brown, yellow, or red

Sengtown Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Hills
Position on hillslope: Convex or linear summits and backslopes
Parent material: Clayey residuum
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Moderate
Slope: 5 to 70 percent
Taxonomic classification: Fine, mixed, semiactive, thermic Typic Paleudalfs

Associated Soils

- Hawthorne and Sugargrove soils, which are in positions similar to those of the Sengtown soils and are underlain by bedrock
- Minvale soils, which are on foot slopes and have a lower content of clay than the Sengtown soils
- Tarklin soils, which are on foot slopes and have a fragipan

Typical Pedon

Sengtown gravelly silt loam in an area of Sugargrove-Sengtown-Hawthorne complex, 12 to 25 percent slopes; Benton County, Tennessee; Poplar Creek, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 21 minutes, 4 seconds N. and long. 88 degrees, 0 minutes, 26.4 seconds W.; NAD83.

A—0 to 1 inch; dark yellowish brown (10YR 4/4) gravelly silt loam; weak fine granular structure; very friable; many fine, common medium, and many very fine roots throughout; 15 percent angular chert gravel; strongly acid; abrupt smooth boundary.

BE—1 to 5 inches; strong brown (7.5YR 5/6) gravelly silt loam; weak fine subangular blocky structure; friable; common fine and few medium roots throughout; common fine and few medium tubular pores; 15 percent angular chert gravel; strongly acid; clear smooth boundary.

Bt1—5 to 12 inches; yellowish red (5YR 5/6) gravelly silty clay loam; moderate medium subangular blocky structure; firm; few fine and few medium roots throughout; common fine and few medium tubular pores; 15 percent angular chert gravel; strongly acid; clear smooth boundary.

Bt2—12 to 20 inches; yellowish red (5YR 5/8) very gravelly silty clay loam; moderate coarse subangular blocky structure; very firm; few fine and few medium roots throughout; many fine, few medium, and few coarse tubular pores; 50 percent continuous faint reddish brown (5YR 5/4) clay films on faces of peds; 35 percent angular chert gravel; strongly acid; gradual smooth boundary.

Bt3—20 to 36 inches; red (2.5YR 4/6) gravelly clay; moderate coarse subangular blocky structure; very firm; few fine and common medium tubular pores; 60 percent continuous faint red (2.5YR 5/6) clay films on faces of peds; 20 percent angular chert gravel; very strongly acid; gradual smooth boundary.

Bt4—36 to 63 inches; red (2.5YR 4/6) gravelly clay; 10 percent coarse prominent irregular light gray (2.5Y 7/1) mottles; strong medium subangular blocky structure; very firm; few fine tubular pores; 60 percent continuous faint red (2.5YR 5/6) clay films on faces of peds; 25 percent angular chert gravel; very strongly acid; clear smooth boundary.

Bt5—63 to 80 inches; red (2.5YR 4/6) very gravelly clay; 12 percent medium prominent irregular brownish yellow (10YR 6/8) mottles; strong medium subangular blocky structure; firm; few fine tubular pores; 60 percent continuous faint clay films on faces of peds; 40 percent angular chert gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 60 inches
Depth to bedrock: Greater than 60 inches
Rock fragments: 15 and 35 percent coarse fragments in the solum
Reaction: Very strongly acid to moderately acid, except where lime has been applied

A horizon:
Color—hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 3 or 4
Texture—gravelly silt loam, gravelly loam, silt loam, or loam

BE horizon (where present)
Color—hue of 10YR or 7.5YR, value of 5 or 6, and chroma of 4 to 6
Texture—gravelly silt loam, gravelly loam, silt loam, or loam

Upper part of the Bt horizon:
Color—hue of 7.5YR or 5YR, value of 5 or 6, and chroma of 4 to 6
Texture (fine-earth fraction)—silty clay loam, silty clay, or clay

Lower part of the Bt horizon:
Color—hue of 5YR, 2.5YR, or 10R, value of 4 or 5, and chroma of 6 to 8
Texture (fine-earth fraction)—silty clay or clay

Smithdale Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Hills
Position on hillslope: Convex summits and backslopes
Parent material: Loamy marine deposits
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Very deep
Shrink-swell potential: Low
Slope: 8 to 60 percent
Taxonomic classification: Fine-loamy, siliceous, subactive, thermic Typic Hapludults

Associated Soils

- Dulac soils, which are in the less sloping positions and have a fragipan
- Lexington soils, which are in the less sloping positions
- Luverne soils, which have a higher content of clay than the Smithdale soils
- Providence soils, which are moderately well drained and are less sloping than the Smithdale soils

Typical Pedon

Smithdale loam, 12 to 25 percent slopes, eroded; Henry County, Tennessee; Cottage Grove, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 23 minutes, 2.25 seconds N. and long. 88 degrees, 23 minutes, 38.06 seconds W.; NAD83.

A—0 to 3 inches; brown (10YR 4/3) loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine roots; very strongly acid; abrupt smooth boundary.
E—3 to 5 inches; yellowish brown (10YR 5/4) loam; weak coarse granular structure; very friable, nonsticky, nonplastic; common fine and few medium roots; strongly acid; clear smooth boundary.
BE—5 to 9 inches; strong brown (7.5YR 4/6) loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; few medium roots; common fine tubular pores; very strongly acid; clear smooth boundary.
Bt1—9 to 20 inches; yellowish red (5YR 4/6) clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine roots; common fine tubular pores; 10 percent faint reddish brown (5YR 4/4) clay bridges between sand grains; very strongly acid; gradual smooth boundary.
Bt2—20 to 44 inches; yellowish red (5YR 4/6) sandy clay loam; moderate coarse and medium subangular blocky structure; friable, moderately sticky, moderately plastic; few fine tubular pores; 20 percent faint reddish brown (5YR 4/4) clay bridges between sand grains; very strongly acid; gradual smooth boundary.

Bt3—44 to 56 inches; red (2.5YR 4/6) sandy clay loam; moderate coarse subangular blocky structure; friable, slightly sticky, slightly plastic; few fine tubular pores; 15 percent distinct reddish brown (5YR 4/4) clay bridges between sand grains; very strongly acid; gradual smooth boundary.
Bt4—56 to 80 inches; red (2.5YR 4/6) sandy loam; weak coarse subangular blocky structure; friable, slightly sticky, slightly plastic; few fine tubular pores; 5 percent distinct reddish brown (5YR 4/4) clay bridges between sand grains; very strongly acid.

Range in Characteristics

Thickness of the solum: 60 to more than 100 inches
Depth to bedrock: Greater than 80 inches
Rock fragments: 0 to 10 percent gravel
Reaction: Very strongly or strongly acid, except in the surface horizon where lime has been limed

A horizon:
Color—hue of 7.5YR or 10YR, value of 4, and chroma of 1 to 3
Texture—fine sandy loam, sandy loam, loam, loamy fine sand, or loamy sand

E horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4
Texture—fine sandy loam, sandy loam, loam, loamy fine sand, or loamy sand

BE horizon (where present):
Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 8
Texture—fine sandy loam, sandy loam, loam, loamy fine sand, or loamy sand

Bt horizon:
Color—hue of 5YR or 2.5YR, value of 4 or 5, and chroma of 6 to 8
Texture—clay loam, sandy clay loam, or loam in upper part; sandy loam or loam in lower part
Mottles (where present)—clay films in shades of reddish brown and red; pockets of pale brown to brownish yellow sand grains in the lower part of the horizon

Sugargrove Series

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Hills
Position on hillslope: Convex summits, shoulders, and backslopes
Parent material: Loamy residuum
Drainage class: Well drained
Permeability class: Moderate
Soil depth class: Moderately deep to paralithic bedrock
Shrink-swell potential: Low
Slope: 5 to 70 percent
Taxonomic classification: Fine-loamy, mixed, semiactive, thermic Typic Hapludults

Associated Soils

- Hawthorne soils, which are in positions similar to those of the Sugargrove soils and have a higher content of gravel
- Sengtown soils, which are in positions similar to those of the Sugargrove soils and have a higher content of clay
- Tarklin soils, which are on foot slopes and have a fragipan
- Minvale soils, which are on foot slopes and are very deep

Typical Pedon

Sugargrove gravelly silt loam in an area of Sugargrove-Sengtown-Hawthorne complex, 12 to 25 percent slopes; Benton County, Tennessee; McKinnon, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 15 minutes, 22.3 seconds N. and long. 87 degrees, 57 minutes, 51.2 seconds W.; NAD83.

A—0 to 2 inches; brown (10YR 4/3) gravelly silt loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine and common medium roots throughout; 30 percent angular chert gravel; strongly acid; abrupt smooth boundary.

E—2 to 6 inches; pale brown (10YR 6/3) gravelly silt loam; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; common fine and common medium roots throughout; common fine and common very fine tubular pores; 30 percent angular chert gravel; strongly acid; clear smooth boundary.

Bt1—6 to 11 inches; light yellowish brown (10YR 6/4) gravelly silt loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and common medium roots throughout; common fine tubular pores; 10 percent discontinuous distinct yellowish brown (10YR 5/6) clay films on faces of peds; 10 percent siltstone channers and 15 percent angular chert gravel; strongly acid; clear smooth boundary.

Bt2—11 to 18 inches; yellowish brown (10YR 5/6) gravelly silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and common medium roots throughout; common fine and few medium tubular pores; 10 percent discontinuous distinct yellowish brown (10YR 5/8) clay films on faces of peds; 10 percent subrounded siltstone channers and 15 percent angular chert gravel; strongly acid; clear smooth boundary.

Bt3—18 to 28 inches; strong brown (7.5YR 5/6) gravelly silty clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine, few medium, and few coarse roots throughout; common fine and common medium tubular pores; 20 percent continuous distinct strong brown (7.5YR 4/6) clay films on faces of peds; very strongly acid; abrupt smooth boundary.

Cr—28 to 80 inches; bedrock.

Range in Characteristics

Thickness of the solum: 25 to 55 inches
Depth to bedrock: 20 to 60 inches
Rock fragments: 10 to 35 percent, by volume, in the A and E horizons and the upper part of the Bt horizon; 15 to 60 percent, by volume, in the lower part of the Bt horizon and in the C horizon
Reaction: Strongly acid or very strongly acid

A horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4
Texture (fine-earth fraction)—silt loam or loam

E horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4; or hue of 2.5Y, value of 5 or 6, chroma of 4 to 6
Texture (fine-earth fraction)—silt loam or loam

Bt horizon (upper part):
Color—hue of 10YR or 7.5YR, value of 5 or 6, and chroma of 4 to 6
Mottles (where present)—shades of brown or red
Texture (fine-earth fraction)—silt loam or silty clay loam

Bt horizon (lower part):
Color—hue of 10YR to 5YR, value of 4 to 6, and chroma of 4 to 8
Mottles (where present)—shades of brown or red
Texture (fine-earth fraction)—silt loam, silty clay loam, silty clay, or clay

C horizon (where present):
Color—hue of 10YR to 5YR, value of 4 to 6, and chroma of 3 to 8
Mottles (where present)—shades of brown, red, yellow, or gray
Texture (fine-earth fraction)—silt loam or silty clay loam

Cr layer:
Type of bedrock—weathered siltstone or highly fractured cherty limestone that can be dug with difficulty using a spade

Tarklin Taxadjunct

Major land resource area: 122—Highland Rim and Pennyroyal
Geomorphic setting: Side slopes; terraces on hills
Position on hillslope: Concave footslopes
Parent material: Loamy colluvium
Drainage class: Moderately well drained
Permeability class: Very slow
Soil depth class: Shallow to a fragipan
Shrink-swell potential: Low
Slope: 5 to 35 percent
Taxonomic classification: Fine-loamy, siliceous, semiactive, thermic Typic Fragiudults

Associated Soils

- Hawthorne and Sugargrove soils, which are on side slopes adjacent to the Tarklin soils and are underlain by bedrock
- Sengtown soils, which are on upland side slopes adjacent to the Tarklin soils
- Minvale soils, which are in positions similar to those of the Tarklin soils and are well drained

Typical Pedon

Tarklin taxadjunct silt loam in an area of Tarklin-Minvale complex, 12 to 35 percent slopes; Benton County, Tennessee; McKinnon, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 18 minutes, 26.51 seconds N. and long. 88 degrees, 0 minutes, 11.05 seconds W.; NAD83.

A—0 to 2 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; very friable, nonsticky, nonplastic; many fine, common medium, and many very coarse roots throughout; moderately acid; abrupt smooth boundary.

E—2 to 7 inches; pale brown (10YR 6/3) silt loam; moderate fine granular structure; very friable, nonsticky, nonplastic; common fine, common medium, and few coarse roots; many fine and many very fine tubular pores; moderately acid; abrupt smooth boundary.

EB—7 to 10 inches; light yellowish brown (10YR 6/4) silt loam; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; common fine and common medium roots throughout; many fine, few medium, and many very fine tubular pores; moderately acid; clear smooth boundary.

Bt—10 to 20 inches; strong brown (7.5YR 5/6) gravelly silt loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and common medium roots throughout; common fine, few medium, and common very fine tubular pores; 25 percent angular chert gravel; strongly acid; clear smooth boundary.

Btx1—20 to 34 inches; light yellowish brown (10YR 6/4) very gravelly silt loam; moderate coarse prismatic structure; firm, slightly sticky, slightly plastic; few fine and few medium roots throughout; common fine and common very fine vesicular pores; 10 percent fine distinct irregular very pale brown (10YR 7/3) and light gray (10YR 7/2) iron depletions; 3 percent medium faint irregular brownish yellow (10YR 6/6) masses of oxidized iron in the matrix; 55 percent angular chert gravel; strongly acid; gradual smooth boundary.

Btx2—34 to 62 inches; brownish yellow (10YR 6/6) very gravelly silt loam; moderate very coarse prismatic structure; very firm, slightly sticky, slightly plastic; few fine and few very fine roots throughout; few fine vesicular pores; 10 percent fine distinct irregular very pale brown (10YR 7/3) and light gray (10YR 7/2) iron depletions; 50 percent angular chert gravel; very strongly acid; gradual smooth boundary.

Btx3—62 to 80 inches; brownish yellow (10YR 6/6) very gravelly silt loam; moderate very coarse prismatic structure; very firm, slightly sticky, slightly plastic; few fine vesicular pores; 15 percent medium distinct irregular very pale brown (10YR 7/3) and light gray (10YR 7/2 and 7/1) iron depletions; 3 percent medium distinct irregular brownish yellow (10YR 6/8) masses of oxidized iron in the matrix; 40 percent angular chert gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: 60 inches or more
Depth to fragipan: 18 to 30 inches
Rock fragments: 10 to 35 percent gravel in the A and Bt horizons and 25 to 75 percent in the Btx horizon
Reaction: Strongly acid to extremely acid, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4
Texture—silt loam or gravelly silt loam

E horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4
Texture—silt loam or gravelly silt loam

BE, EB, and Bt horizons:
Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 4 to 6
Texture (fine-earth fraction)—silt loam or, rarely, silty clay loam

Btx horizon:
Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 3 to 6
Texture (fine-earth fraction)—silt loam or silty clay loam
Redoximorphic features—iron or clay depletions in shades of gray; iron accumulations in shades of brown and yellow

The Tarklin soils in Henry County are a taxadjunct to the Tarklin series. The taxadjunct soils formed in the thermic temperature regime, which is slightly warmer than the mesic temperature regime in which the Tarklin series formed. Behavior, use, and management are similar for the taxadjunct soils and the Tarklin series.

Tippah Series

Major land resource area: 133A—Southern Coastal Plain
Geomorphic setting: Divides
Position on hillslope: Convex or linear summits, shoulders, and backslopes
Parent material: Loess over clayey marine deposits

Drainage class: Moderately well drained
Permeability class: Slow
Soil depth class: Very deep
Shrink-swell potential: Moderate
Slope: 2 to 12 percent
Taxonomic classification: Fine-silty, mixed, active, thermic Aquic Paleudalfs

Associated Soils

- Chickasaw and Arundel soils, which are on side slopes adjacent the Tippah soils
- Dulac soils, which are in positions similar to those of the Tippah soils and have a fragipan
- Providence soils, which are in positions similar to those of the Tippah soils and have a lower content of clay
- Falkner soils, which are in the lower positions and are somewhat poorly drained

Typical Pedon

Tippah silt loam in an area of Dulac-Tippah complex, 5 to 8 percent slopes, eroded; Benton County, Tennessee; Manleyville, Tennessee, USGS 7.5-minute quadrangle; lat. 36 degrees, 9 minutes, 10.86 seconds N. and long. 88 degrees, 8 minutes, 27.92 seconds W.; NAD83.

Ap—0 to 5 inches; dark yellowish brown (10YR 4/6) silt loam; moderate medium granular structure; friable, nonsticky, nonplastic; common very fine roots throughout; moderately acid; abrupt smooth boundary.

Bt1—5 to 10 inches; strong brown (7.5YR 4/6) silty clay loam; moderate medium subangular blocky structure; firm, slightly sticky, slightly plastic; few very fine roots throughout; few fine vesicular pores; strongly acid; clear smooth boundary.

Bt2—10 to 15 inches; strong brown (7.5YR 5/6) silt loam; 2 percent fine distinct irregular pale brown (10YR 6/3) mottles; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine roots throughout; common fine vesicular pores; 5 percent patchy distinct very pale brown (10YR 7/4) skeletans on vertical faces of peds; 5 percent coarse distinct irregular yellowish red (5YR 4/6) iron-manganese masses on faces of peds; strongly acid; clear smooth boundary.

Bt3—15 to 20 inches; strong brown (7.5YR 4/6) silty clay loam; moderate coarse and medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine vesicular pores; 5 percent patchy distinct very pale brown (10YR 7/4) skeletans on vertical faces of peds; 8 percent medium prominent irregular light brownish gray (10YR 6/2) iron depletions; some brittleness; strongly acid; clear smooth boundary.

2Bt4—20 to 26 inches; yellowish red (5YR 4/6) clay; weak fine and medium angular blocky structure; very firm, very sticky, very plastic; few fine vesicular pores; 25 percent continuous distinct brown (7.5YR 4/4) clay films on faces of peds; 4 percent medium prominent irregular light brownish gray (10YR 6/2) iron depletions; 3 percent medium distinct irregular red (2.5YR 4/6) iron-manganese masses infused into matrix along faces of peds; mottles in shades of yellow and brown; very strongly acid; clear smooth boundary.

2Bt5—26 to 73 inches; red (2.5YR 5/6) clay; moderate fine and medium angular blocky structure; very firm, very sticky, very plastic; few fine vesicular pores; 25 percent continuous distinct brown (7.5YR 4/4) clay films on faces of peds; 2 percent medium prominent irregular light brownish gray (10YR 6/2) iron depletions; very strongly acid; gradual smooth boundary.

2Bt6—73 to 80 inches; red (2.5YR 5/8) sandy clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; few fine vesicular pores; 15 percent continuous distinct brown (7.5YR 4/4) clay films on faces of peds; 1 percent medium prominent irregular light brownish gray (10YR 6/2) iron depletions; very strongly acid.

Range in Characteristics

Thickness of the solum: Greater than 60 inches
Depth to bedrock: Greater than 60 inches
Reaction: Very strong acid to moderately acid, except the surface layer where lime has been applied

Ap horizon:
Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 6
Texture—loam or silt loam

Bt horizon:
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 6; or hue of 7.5YR, value of 4 or 5, and chroma of 6 to 8
Mottles—few to many mottles in shades of brown, gray, or yellow in the lower part of the Bt horizon; mottles with chroma of 2 or less within a depth of 30 inches
Texture—silt loam or silty clay loam; 20 to 35 percent clay in the upper 20 inches

2Bt horizon:
Color—matrix ranging from red to gray with few to many mottles in shades of yellow, brown, red, or gray; or mottled in shades of red, gray, brown, and yellow
Texture—silty clay, silty clay loam, clay loam, sandy clay, or clay

Formation of the Soils

Factors of Soil Formation

A soil is a natural body on the earth's surface that exhibits unique features and properties. The characteristics of a soil depend upon the physical and chemical composition of the parent material as influenced by climate, topography, living organisms, and time. All five factors are active in the formation of every soil, but the relative importance of each factor can differ from one soil to another (Yaalon, 1983). This section relates the factors of soil formation to the soils of Henry County.

Parent Material

Parent material is the unconsolidated mass from which a soil develops. It is the product of material transported by either water or wind, or it is the accumulation of material that is slowly weathered from the underlying bedrock. Parent material has a major influence on the chemical, mineral, and textural composition of the soil. In the early stages of soil development, a soil has properties similar to those of its parent material. As climate, topography, biological activity, and time act on the parent material in varying degrees, the parent material is modified and soils begin to develop and differentiate.

The three major sources of parent material in Henry County are marine deposits, which cover most of the county; residuum from bedrock in the extreme eastern parts; and loess (windblown silt), which blankets much of the county in varying depths. All of the soils of the county are derived from one or more of these sources.

Loess blankets most of the uplands of Henry County. The loess ranges in depth from more than 6 feet in the northwest to less than 2 feet in the east and southeast. This windblown material originated from glacial outwash deposited during the retreat of ice after the Pleistocene ice age. This deposition of loess resulted in many of the soils in the area having two parent materials. Feliciana, Grenada, and Loring soils are examples of soils that formed in 4 or more feet of loess overlying loamy to clayey marine deposits. Other soils, such as Dulac, Lexington, and Providence soils, formed in 2 to 4 feet of loess over the same marine deposits. In some of these soils, a fragipan formed at, or slightly above, the transition point from loess to marine sediments.

Underlying the loess deposits in the county are layers of marine sediments that are as old as the late Cretaceous period, more than 65 million years ago. These sediments are loamy to clayey and are described in more detail in the Physiography and Geology section. Luverne, Remlik, and Smithdale soils are examples of soils that formed largely in marine deposits capped by a layer of loess that is less than 2 feet thick. These types of soils dominate some ridges and the steeper side slopes throughout the county.

Also underlying the loess or marine sediments in the northeastern part of the county are thick deposits of gravel that have a continental origin rather than a marine origin. These deposits can be 40 feet or more in thickness. Brandon and Saffell soils formed in this material.

A narrow band of soils in the extreme eastern part of the county formed from bedrock that weathered in place. The depth to the underlying bedrock parent material ranges from 20 inches to more than 80 inches. The content of gravel in these soils also varies, based largely on the kind of bedrock from which they weathered. Hawthorne, Sengtown, and Sugargrove soils are examples.

Commonly, a collection of material that was transported by water and gravity is at the base of steep soils that formed from bedrock parent material. This transported material, called “colluvium,” is commonly very gravelly. Examples of the relatively young soils that formed in colluvium are Humphreys, Minvale, and Tarklin soils.

Alluvial material deposited by major creeks and rivers covers about 9 percent of the survey area. The texture of this material varies greatly, based on whether the source of the deposition was loess, marine sediments, residuum, or a combination of these materials. Soils that formed primarily in alluvium from residual sources include Ennis, Lobelville, Pruitton, and Riverby soils. Those forming dominantly from loess include Arkabutla, Cascilla, Chenneby, and Rosebloom soils. Alluvium from water-deposited marine sediments form such soils as Bibb, Enville, Iuka, and Ochlockonee soils.

Climate

Climate factors, primarily precipitation and temperature, affect the chemical, physical, and biological properties of a soil. Climate affects the kind and abundance of plants and animals in and on the soil. It also affects the rate of erosion by weathering, the leaching of nutrients, and the degree of profile development.

The climate of Henry County is humid and temperate. The abundant moisture fosters the leaching of soluble bases and the movement of clay minerals from the surface layer into the subsoil. Therefore, most of the soils have a higher content of clay in the subsoil than in the surface or subsurface layers. Upland soils, such as Feliciana, Lexington, and Smithdale soils, exhibit these properties.

Topography

Topography, including relief, slope, landform, and aspect, influences or modifies the effects of other soil-forming factors. The gradient, shape, and length of a slope directly influence the rate of water infiltration and the rate of runoff. Areas that have a higher runoff rate are generally more eroded than areas with a lower runoff rate. The steeper slopes in the uplands are the result of rapid down-cutting by stream action. This process exposes the underlying loess and marine sediments to the soil forming processes. Steep soils have profiles that are generally weakly developed; they have not reached the maturity of soils on more stable, level landscapes.

Soils on stream terraces tend to have a loamy profile of intermediate age. They formed in silty and loamy material that washed down from adjacent uplands and in alluvium deposited during flooding. These areas are relatively stable, and the soils continue to undergo profile development.

Level, nearly level, and concave slopes in the uplands tend to concentrate water and allow more infiltration. In many areas, however, the downward movement of free water through the soil profile is restricted by a relatively impermeable layer called a “fragipan.” Water can be perched on such layers for days before moving off laterally.

Soils on nearly level flood plains tend to continue to accumulate sediment that washed down from adjacent uplands or that was deposited by stream overflow. This repeated deposition results in stratified soils characterized by minimum profile development.

Living Organisms

Plants affect soil formation primarily through the addition of organic matter and through nutrient cycling. Animals, including mammals, insects, arthropods, bacteria, and fungi, help break down organic matter into its constituent parts. They also aerate the soils and increase the infiltration rate of water. Biological action is most evident in flood plain soils that have the high content of organic matter. Examples include Chenneby, Enville, and Rosebloom soils.

Trees can have a profound effect on the development of a soil by transporting nutrients from the lower part of the soil to the upper part. Trees also provide an annual addition of organic matter and a protective cover that helps to reduce erosion.

Time

Time is necessary for climate, living organisms, and topography to act upon a parent material in order to form a soil. In terms of soil formation, time is considered a relative rather than absolute variable. The age of a soil is determined by the relative degree of profile development rather than by the number of years the soil has been subject to soil forming process. A soil is considered young if it has weakly developed horizons. A soil is considered old if it has strongly expressed, well developed horizons.

Ochlockonee, Riverby, and Rosebloom soils are examples of soils that have weakly developed horizons and retain many of the characteristics of their parent material. These soils are on flood plains and formed in alluvium deposited from streams and washed from adjacent uplands. Because these areas periodically receive newly deposited material, the soils do not have well defined horizons.

If no additional material is deposited onto an alluvial soil, distinct horizons begin to develop and become more clearly defined. Structure develops where active biological processes occur. Also, weathering causes some of the finer material to move from the upper layer into the subsoil. Armour, Humphreys, and Kurk soils are examples of intermediate aged soils that formed in alluvium or colluvium and are no longer receiving new deposition.

The oldest soils in the survey area have well developed horizons. Luverne, Sengtown, and Smithdale soils are examples of soils that have been in place and subjected to the soil forming factors long enough to have acquired distinct profile characteristics. The soils, and many others, have an argillic horizon where clay from the upper layers has been translocated and deposited into the lower layers by eluviation. Soils exhibiting these characteristics are considered mature.

Physiography and Geology

This section written with assistance from Dr. Michael Gibson, professor of Geology, University of Tennessee at Martin.

The physiography and geology of Henry County are diverse and complex, which accounts for the many different types of soil and the complex soil patterns in the county. Slopes in the county range from nearly level to very steep. The nearly level areas are on flood plains, stream terraces, and broad, upland plateaus. The western and far north-central parts of the county have the highest percentage of slopes that are nearly level to gently sloping. The highest percentage of steep to very steep slopes is in the northeastern part of the county. It also has the highest relief, up to 200 feet in a few places. The highest elevation in the county, 650 feet above sea level, is in the north-central part of the county about 4.5 miles southeast of Puryear on the Tennessee and Mississippi River Divide. The lowest elevation, 359 feet above sea level, is along Kentucky Lake.

All of the geologic formations in Henry County are sedimentary in origin. Most of Henry County is in the East Gulf Coastal Plain section of the Coastal Plain physiographic province. The geological formations of this province consist mostly of unconsolidated sand, silt, clay, and gravel. The extreme eastern part of the county is in the Highland Rim section of the Interior Low Plateau province. This section has consolidated bedrock, mostly cherty limestone.

A mantle of loess (windblown silt) covers most of the uplands and stream terraces. The steep and very steep slopes and some of the narrow, convex ridgetops have little or no loess. The northwestern part of the county has the thickest loess, averaging about 4 to 7 feet in depth in the nearly level to gently sloping positions. The southeastern part of the county has the thinnest loess, averaging about 2 to 4 feet in depth in the nearly level to gently sloping positions.

The geology of Henry County is highly varied. It includes 16 different geologic formations ranging over 6 geologic age systems from Quaternary to Silurian. The geologic formations of the Quaternary system include alluvium, loess, and fluvial deposits.

The alluvium is the youngest formation and is on flood plains throughout the county. The younger alluvium on first bottoms is Recent or Holocene in age. The older alluvium on low stream terraces, or second bottoms, is Pleistocene in age.

The loess is Pleistocene in age and forms a surface covering on the less sloping uplands throughout the county. The loess is deepest in the northwestern part of the county and gradually thins to the south and east.

The fluvial deposits are on the older stream terraces; on broad, upland plateaus; and on some of the higher ridgetops and side slopes. The fluvial deposits on stream terraces and broad, upland plateaus are loamy and consist mostly of quartz sand with some silt and clay. Convex “bumps,” which may be remnants of old sand dunes, are a feature of note on the upland plateaus. These higher, convex areas are underlain by sand that is believed to be eolian in origin. The fluvial deposits on the higher ridgetops and side slopes in the northeastern part of the county are gravelly. They are composed of mostly rounded or subrounded quartzite and chert gravel with some lenses of sand. In a few places, the gravel is cemented to form ferruginous conglomerate. The fluvial deposits are believed to be from ancient stream systems. Most of the fluvial deposits are Pleistocene in age, but the higher and older gravelly deposits may be of Pliocene age in the Tertiary system. Some of the gravelly fluvial deposits in the northeastern part of Henry County are important sources of gravel and have been mined extensively.

The Coastal Plain (marine) sediments are Tertiary and Cretaceous in age. The geologic formations of the Tertiary system include the Lower Eocene- and Middle Eocene-aged Claiborne Formation and Wilcox Formation and the Paleocene-aged Porters Creek Clay and Clayton Formation. The geologic formations of the Cretaceous system include the Upper Cretaceous-aged McNairy Sand, Coon Creek Formation, Coffee Sand, and Tuscaloosa Formation. In Henry County, these Tertiary and Cretaceous formations are mostly in south-to-north belts. The age of these formations increases from youngest to oldest from west to east.

The Claiborne Formation is the youngest Coastal Plain formation and is on slopes in the western part of the county. It consists primarily of fine- to coarse-grained quartz sand with lenses of white to dark gray kaolinitic clay. The clay is sometimes called “ball” clay. The Claiborne Formation is an important source of this clay, and it is mined extensively in deep pits in the western part of the county. The formation is also an important source of sand, which is mined in several pits near Paris.

The Wilcox Formation is a heterogeneous unit in which the sediments are interbedded and interlensed. Lignite and petrified wood are sometimes found in this formation. Also of note is ferruginous sandstone, which forms in some places near the contact of the Claiborne and Wilcox Formations or the Wilcox Formation and the Porters Creek Clay. This sandstone formed by local ground water cementation and developed as tabular masses and boulders of ferruginous sandstone that range from a few feet to many feet in thickness.

The Porters Creek Clay outcrops in a narrow belt in the central part of the county. It consists of gray to dark gray, clayey shale or claystone that has a conchodial fracture. The claystone has a smooth, waxy or soapy feel and is locally called “soapstone.”

This material has been mined at Paris and processed into cat litter and oil absorbent (USDI–USGS, 1971).

The Clayton Formation and McNairy Sand are the next formations east of the Porters Creek Clay. These formations consist primarily of fine- to coarse-grained quartz sand with a few lenses of kaolinitic clay. At a few places, the sand is cemented to form tabular masses of ferruginous sandstone. The Clayton Formation has more clay and mica than the McNairy Sand. The McNairy Sand locally contains low concentrations of very fine- to fine-grained heavy minerals. The McNairy Sand also contains a few lenses of brownish black to brownish gray, impure lignite that is as much as a few feet in thickness.

Below the McNairy Sand are the Coon Creek Formation and the Coffee Sand, which outcrop to the east of the McNairy. Both the Coon Creek Formation and Coffee Sand have finer grained sand and more mica than the McNairy Sand. The Coon Creek Formation has very fine- to fine-grained, glauconitic sand with beds of gray to dark gray, micaceous clay. The Coffee Sand consists of very fine- to medium-grained, slightly micaceous sand with beds and lenses of brownish black to very dark gray, lignitic clay. The Coffee Sand is the oldest Coastal Plain formation in Henry County, except for a few thin exposures of the Tuscaloosa Formation.

The Tuscaloosa Formation is the oldest Cretaceous-aged Coastal Plain formation. It occurs in Henry County only as very thin outcroppings along the easternmost edge of the Coffee Sand and only in a few places in the extreme northeastern part of the county. The Tuscaloosa Formation consists of thin, discontinuous patches of pebbles and cobbles of angular to rounded chert (USDI–USGS, 1971 and 1976).

The oldest geologic formations in Henry County range in age from Mississippian to Silurian. They are in the Highland Rim section in the easternmost part of the county. The geologic formations of the Mississippian system include the Lower Mississippian-aged Warsaw Limestone and Fort Payne Formation. The geologic formations of the Devonian system include the Lower Devonian- and Middle Devonian-aged Camden Formation and Ross Formation. The geologic formation of the Silurian system is the Decatur Limestone. The Warsaw Limestone is the youngest formation of the Mississippian age. It is a grayish, crinoidal limestone that contains some chert. The exposures of the Warsaw Formation are very small and rare. They are found only in the extreme northeastern part of the county. Next in Mississippian age is the Fort Payne Formation, which occupies most of the Highland Rim area and is composed of interbedded brownish or grayish chert and yellowish or tan siltstone. Some of the chert is very hard, dense, and flinty. The Devonian-aged Camden Formation is light gray to white chert that outcrops in small, thin bands along the Big Sandy River Bay section of Kentucky Lake. The slightly older Ross Formation outcrops below the Camden Formation in only a very few small exposures. Most of the exposures of the Ross Formation are on two large islands in the Big Sandy River Bay. The Ross Formation consists of calcareous shale and limestone. The oldest geologic formation in Henry County is the Silurian-aged Decatur Limestone, which is a light gray, argillaceous limestone. The Decatur Limestone only crops out on a small island in the Big Sandy River Bay. Any other outcrops of this limestone were covered by the waters of Kentucky Lake (USDI–USGS, 1970 and 1971).

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Glossary

Many of the terms relating to landforms, geology, and geomorphology are defined in more detail in the "National Soil Survey Handbook" (available in local offices of the Natural Resources Conservation Service or on the Internet).

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvial fan. A low, outspread mass of loose materials and/or rock material, commonly with gentle slopes. It is shaped like an open fan or a segment of a cone. The material was deposited by a stream at the place where it issues from a narrow mountain valley or upland valley or where a tributary stream is near or at its junction with the main stream. The fan is steepest near its apex, which points upstream, and slopes gently and convexly outward (downstream) with a gradual decrease in gradient.

Alluvium. Unconsolidated material, such as gravel, sand, silt, clay, and various mixtures of these, deposited on land by running water.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction toward which a slope faces. Also called slope aspect.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	more than 12

Backslope. The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

Bedding plane. A planar or nearly planar bedding surface that visibly separates each successive layer of stratified sediment or rock (of the same or different lithology) from the preceding or following layer; a plane of deposition. It commonly marks a change in the circumstances of deposition and may show a parting, a color difference, a change in particle size, or various combinations of these. The term is commonly applied to any bedding surface, even one that is conspicuously bent or deformed by folding.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.
Bottom land. An informal term loosely applied to various portions of a flood plain.
Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.
Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.
Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.
Channery soil material. Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.
Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.
Clay depletions. See Redoximorphic features.
Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.
Claypan. A dense, compact, slowly permeable subsoil layer that contains much more clay than the overlying materials, from which it is separated by a sharply defined boundary. A claypan is commonly hard when dry and plastic and sticky when wet.
Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.
Colluvium. Unconsolidated, unsorted earth material being transported or deposited on side slopes and/or at the base of slopes by mass movement (e.g., direct gravitational action) and by local, unconcentrated runoff.
Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.
Concretions. See Redoximorphic features.
Conglomerate. A coarse grained, clastic sedimentary rock composed of rounded or subangular rock fragments more than 2 millimeters in diameter. It commonly has a matrix of sand and finer textured material. Conglomerate is the consolidated equivalent of gravel.
Conservation tillage. A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.
Consistence, soil. Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the “Soil Survey Manual.”
Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.
Cover crop. A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.
Crop residue management. Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.
Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Depth, soil. Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained,* and *very poorly drained*. These classes are defined in the “Soil Survey Manual.”

Drainage, surface. Runoff, or surface flow of water, from an area.

Ecoregion. Distinctive regional areas of the earth’s surface that are characterized, defined, and shaped by environmental factors, such as physiography, landform, geology, soils, climate, hydrology, vegetation, wildlife, and land use.

Eluviation. The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

Eolian deposit. Sand-, silt-, or clay-sized clastic material transported and deposited primarily by wind, commonly in the form of a dune or a sheet of sand or loess.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.

Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity, normal moisture capacity,* or *capillary capacity*.

Flood plain. The nearly level plain that borders a stream and is subject to flooding unless protected artificially.

Flood-plain landforms. A variety of constructional and erosional features produced by stream channel migration and flooding. Examples include backswamps, flood-plain splays, meanders, meander belts, meander scrolls, oxbow lakes, and natural levees.

Fluvial. Of or pertaining to rivers or streams; produced by stream or river action.

Footslope. The concave surface at the base of a hillslope. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Forest type. A classification or category of forestland based on the tree species with the greatest abundance, greatest percent cover, or both.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water. Water filling all the unblocked pores of the material below the water table.

Gully. A small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Head slope (geomorphology). A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.

Hill. A generic term for an elevated area of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline. Slopes are generally more than 15 percent. The distinction between a hill and a mountain is arbitrary and may depend on local usage.

Hillslope. A generic term for the steeper part of a hill between its summit and the drainage line, valley flat, or depression floor at the base of a hill.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the “Soil Survey Manual.” The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

L horizon.—A layer of organic and mineral limnic materials, including coprogenous earth (sedimentary peat), diatomaceous earth, and marl.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Intermittent stream. A stream, or reach of a stream, that does not flow year-round but that is commonly dry for 3 or more months out of 12 and whose channel is generally below the local water table. It flows only during wet periods or when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Iron depletions. See Redoximorphic features.

K_{sat}. Saturated hydraulic conductivity. (See Permeability.)

Leaching. The removal of soluble material from soil or other material by percolating water.

Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at $^1/_3$- or $^1/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Loess. Material transported and deposited by wind and consisting dominantly of silt-sized particles.

Low strength. The soil is not strong enough to support loads.

Map unit. A collection of areas defined and named in terms of their soil components, miscellaneous (nonsoil) areas, or both. Each map unit differs in some respect from all others in a survey area, and each has a symbol that uniquely identifies the map unit on a soil map. Each individual polygon, point, or line so identified on the map is referred to as a delineation.

Masses. See Redoximorphic features.

Meander belt. The zone within which migration of a meandering channel occurs; the flood-plain area included between two imaginary lines drawn tangential to the outer bends of active channel loops.

Meander scar. A crescent-shaped, concave or linear mark on the face of a bluff or valley wall, produced by the lateral erosion of a meandering stream that impinged upon and undercut the bluff.

Meander scroll. One of a series of long, parallel, close-fitting, crescent-shaped ridges and troughs formed along the inner bank of a stream meander as the channel migrated laterally down-valley and toward the outer bank.

Mesophytic vegetation. Plants adapted to and growing in moderately moist environments.

Mine spoil. An accumulation of displaced earthy material, rock, or other waste material removed during mining or excavation. Also called earthy fill.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. A kind of map unit that has little or no natural soil and supports little or no vegetation.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few, common,* and *many;* size—*fine, medium,* and *coarse;* and contrast—*faint, distinct,* and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium,* from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse,* more than 15 millimeters (about 0.6 inch).

Nose slope (geomorphology). A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent. Nose slopes consist dominantly of colluvium and slope-wash sediments (for example, slope alluvium).

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan, fragipan, claypan, plowpan,* and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedon. The smallest volume that can be called “a soil.” A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as “saturated hydraulic conductivity,” which is defined in the “Soil Survey Manual.” In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as “permeability.” Terms describing permeability, measured in inches per hour, are as follows:

Impermeable	less than 0.0,015 inch
Very slow	0.0,015 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Pore linings. See Redoximorphic features.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed as pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Redoximorphic concentrations. See Redoximorphic features.

Redoximorphic depletions. See Redoximorphic features.

Redoximorphic features. Redoximorphic features are associated with wetness and result from alternating periods of reduction and oxidation of iron and manganese compounds in the soil. Reduction occurs during saturation with water, and oxidation occurs when the soil is not saturated. Characteristic color patterns are created by these processes. The reduced iron and manganese ions may be removed from a soil if vertical or lateral fluxes of water occur, in which case there is no iron or manganese precipitation in that soil. Wherever the iron and manganese are oxidized and precipitated, they form either soft masses or hard concretions or nodules. Movement of iron and manganese as a result of redoximorphic processes in a soil may result in redoximorphic features that are defined as follows:

1. Redoximorphic concentrations.—These are zones of apparent accumulation of iron-manganese oxides, including:
   A. Nodules and concretions, which are cemented bodies that can be removed from the soil intact. Concretions are distinguished from nodules on the basis of internal organization. A concretion typically has concentric layers that are visible to the naked eye. Nodules do not have visible organized internal structure; *and*
   B. Masses, which are noncemented concentrations of substances within the soil matrix; *and*
   C. Pore linings, i.e., zones of accumulation along pores that may be either coatings on pore surfaces or impregnations from the matrix adjacent to the pores.
2. Redoximorphic depletions.—These are zones of low chroma (chromas less than those in the matrix) where either iron-manganese oxides alone or both iron-manganese oxides and clay have been stripped out, including:
   A. Iron depletions, i.e., zones that contain low amounts of iron and manganese oxides but have a clay content similar to that of the adjacent matrix; *and*
   B. Clay depletions, i.e., zones that contain low amounts of iron, manganese, and clay (often referred to as silt coatings or skeletans).
3. Reduced matrix.—This is a soil matrix that has low chroma *in situ* but undergoes a change in hue or chroma within 30 minutes after the soil material has been exposed to air.

Reduced matrix. See Redoximorphic features.
Relief. The relative difference in elevation between the upland summits and the lowlands or valleys of a given region.
Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as bedrock disintegrated in place.
Rill. A very small, steep-sided channel resulting from erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. A rill generally is not an obstacle to wheeled vehicles and is shallow enough to be smoothed over by ordinary tillage.
Riser. The vertical or steep side slope (e.g., escarpment) of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural, steplike landforms, such as successive stream terraces.
Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.
Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.
Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.
Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.
Saturated hydraulic conductivity (K_{sat}). See Permeability.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Sedimentary rock. A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under normal low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, and marine deposits. Examples are sandstone, siltstone, mudstone, claystone, shale, conglomerate, limestone, dolomite, and coal.

Series, soil. A group of soils that have profiles that are almost alike. All the soils of a given series have horizons that are similar in composition, thickness, and arrangement.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.

Shoulder. The convex, erosional surface near the top of a hillslope. A shoulder is a transition from summit to backslope.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Side slope (geomorphology). A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel. Side slopes are dominantly colluvium and slope-wash sediments.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Siltstone. An indurated silt having the texture and composition of shale but lacking its fine lamination or fissility; a massive mudstone in which silt predominates over clay.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

Slickensides (pedogenic). Grooved, striated, and/or glossy (shiny) slip faces on structural peds, such as wedges; produced by shrink-swell processes, most commonly in soils that have a high content of expansive clays.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey, classes for simple slopes are as follows:

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief and by the passage of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10

Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Stream terrace. One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel, originally formed near the level of the stream; represents the remnants of an abandoned flood plain, stream bed, or valley floor produced during a former state of fluvial erosion or deposition.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.

Substratum. The part of the soil below the solum.

Subsurface layer. Any surface soil horizon (A, E, AB, or EB) below the surface layer.

Summit. The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terrace (conservation). An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geomorphology). A steplike surface, bordering a valley floor or shoreline, that represents the former position of a flood plain, lake, or seashore. The term is usually applied both to the relatively flat summit surface (tread) that was cut or built by stream or wave action and to the steeper descending slope (scarp or riser) that has graded to a lower base level of erosion.

Tertiary. The first period of the Cenozoic era of geologic time, following the Mesozoic era and preceding the Quaternary period (about 63 million years to 1 million years ago).

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay* *loam, silty clay loam, sandy clay, silty clay,* and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying “coarse,” “fine,” or “very fine.”

Thin layer (in tables). Otherwise suitable soil material that is too thin for the specified use.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toeslope. The gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Trace elements. Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.

Upland. An informal, general term for the higher ground of a region, in contrast with a low-lying adjacent area, such as a valley or plain, or for land at a higher elevation than the flood plain or low stream terrace; land above the footslope zone of the hillslope continuum.

Weathering. All physical disintegration, chemical decomposition, and biologically induced changes in rocks or other deposits at or near the earth’s surface by atmospheric or biologic agents or by circulating surface waters but involving essentially no transport of the altered material.

Wilting point (or permanent wilting point). The moisture content of soil, on an ovendry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

Windthrow. The uprooting and tipping over of trees by the wind.

Tables

Table 1.--Temperature and Precipitation

[Recorded in the period 1971-2000 at Paris, Tennessee]

Month	Temperature						Precipitation				
				2 years in 10 will have--				2 years in 10 will have--			
	Average daily maximum	Average daily minimum	Average	Maximum temp. higher than--	Minimum temp. lower than--	Average number of growing degree days*	Average	Less than--	More than--	Average number of days with 0.10 inch or more	Average snowfall
	°F	*°F*	*°F*	*°F*	*°F*	*Units*	*In*	*In*	*In*		*In*
January-----	43.1	24.9	34.0	70	-3	14	4.23	2.10	6.20	7	3.2
February----	49.0	28.1	38.5	76	3	27	4.29	2.52	5.62	6	2.7
March-------	59.2	36.8	48.0	83	15	108	5.31	2.90	7.22	8	0.7
April-------	69.1	45.1	57.1	87	26	250	4.73	2.75	6.51	7	0.0
May---------	76.8	54.2	65.5	89	37	481	5.02	3.13	6.73	8	0.0
June--------	84.5	62.9	73.7	95	47	711	4.54	2.54	6.45	6	0.0
July--------	88.0	67.1	77.6	98	55	854	4.51	2.32	6.43	6	0.0
August------	87.2	65.2	76.2	98	52	811	3.76	1.28	6.13	5	0.0
September---	80.8	58.2	69.5	95	40	580	4.01	1.99	6.05	5	0.0
October-----	69.9	46.0	58.0	86	29	272	3.35	1.72	4.83	5	0.0
November----	58.0	37.4	47.7	80	18	98	4.84	2.80	6.69	7	0.2
December----	47.7	28.8	38.2	71	4	25	5.13	2.34	7.41	7	0.3
Yearly:											
Average---	67.8	46.2	57.0	---	---	---	---	---	---	---	---
Extreme---	105	-16	---	99	-6	---	---	---	---	---	---
Total-----	---	---	---	---	---	4,231	53.72	44.34	61.06	77	7.1

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (50 degrees F).

Table 2.--Freeze Dates in Spring and Fall

[Recorded in the period 1971-2000 at Paris, Tennessee]

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	Mar. 30	Apr. 13	Apr. 21
2 years in 10 later than--	Mar. 24	Apr. 8	Apr. 17
5 years in 10 later than--	Mar. 12	Mar. 30	Apr. 9
First freezing temperature in fall:			
1 year in 10 earlier than--	Nov. 4	Oct. 26	Oct. 9
2 years in 10 earlier than--	Nov. 10	Oct. 31	Oct. 15
5 years in 10 earlier than--	Nov. 20	Nov. 9	Oct. 25

Table 3.--Growing Season

[Recorded in the period 1971-2000 at Paris, Tennessee]

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	*Days*	*Days*
9 years in 10	228	207	180
8 years in 10	236	213	186
5 years in 10	252	224	199
2 years in 10	268	235	211
1 year in 10	276	241	218

Table 4.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
Ak	Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded	1,518	0.4
Ao	Arkabutla-Rosebloom complex, 0 to 2 percent slopes, frequently flooded	9,573	2.5
ArC2	Armour silt loam, 5 to 12 percent slopes, eroded	13	*
AuE2	Arundel-Chickasaw complex, 12 to 25 percent slopes, eroded	1,826	0.5
BrB2	Brandon silt loam, 2 to 5 percent slopes, eroded	71	*
BrC2	Brandon silt loam, 5 to 12 percent slopes, eroded	2,351	0.6
BrC3	Brandon silty clay loam, 5 to 12 percent slopes, severely eroded	163	*
CaB2	Calloway silt loam, 2 to 5 percent slopes, eroded	2,194	0.6
CkA	Calloway-Kurk complex, 0 to 2 percent slopes	1,559	0.4
Cl	Cascilla silt loam, 0 to 3 percent slopes, rarely flooded	1,970	0.5
Cn	Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded	5,942	1.6
CVA	Chenneby, Enville, and Arkabutla soils, 0 to 2 percent slopes, frequently flooded	14,334	3.8
DaC3	Deanburg clay loam, 5 to 8 percent slopes, severely eroded	1,439	0.4
DeB3	Deanburg loam, 2 to 5 percent slopes, severely eroded	298	*
DeC2	Deanburg loam, 5 to 8 percent slopes, eroded	172	*
DnB2	Deanburg silt loam, 2 to 5 percent slopes, eroded	106	*
DtB2	Dulac-Tippah complex, 2 to 5 percent slopes, eroded	1,074	0.3
DtB3	Dulac-Tippah complex, 2 to 5 percent slopes, severely eroded	49	*
DtC2	Dulac-Tippah complex, 5 to 8 percent slopes, eroded	1,412	0.4
DtC3	Dulac-Tippah complex, 5 to 8 percent slopes, severely eroded	1,522	0.4
DtD2	Dulac-Tippah complex, 8 to 12 percent slopes, eroded	948	0.2
DtD3	Dulac-Tippah complex, 8 to 12 percent slopes, severely eroded	2,231	0.6
Ea	Enville silt loam, 0 to 2 percent slopes, occasionally flooded	3,586	0.9
Eb	Enville-Bibb complex, 0 to 2 percent slopes, frequently flooded	1,461	0.4
FaB2	Falkner silt loam, 1 to 5 percent slopes, eroded	261	*
FeA	Feliciana silt loam, 0 to 2 percent slopes	4,322	1.1
FeB2	Feliciana silt loam, 2 to 5 percent slopes, eroded	21,416	5.6
GrA	Grenada silt loam, 0 to 2 percent slopes	1,635	0.4
GrB2	Grenada silt loam, 2 to 5 percent slopes, eroded	5,612	1.5
HgF	Hapludults-Gullied land complex, very steep	3,232	0.9
HtE	Hawthorne gravelly silt loam, 12 to 25 percent slopes	88	*
HTF	Hawthorne, Sengtown, and Sugargrove soils, 25 to 70 percent slopes	841	0.2
HuB	Humphreys gravelly silt loam, 2 to 5 percent slopes	75	*
HuC	Humphreys gravelly silt loam, 5 to 12 percent slopes	96	*
Ik	Iuka loam, 0 to 2 percent slopes, occasionally flooded	10,322	2.7
KrA	Kurk silt loam, 0 to 3 percent slopes	3,134	0.8
LaB2	Lax silt loam, 2 to 5 percent slopes, eroded	243	*
LaC2	Lax silt loam, 5 to 12 percent slopes, eroded	1,666	0.4
LbC3	Lax silty clay loam, 5 to 12 percent slopes, severely eroded	1,157	0.3
LeA	Lexington silt loam, 0 to 2 percent slopes	525	0.1
LeB2	Lexington silt loam, 2 to 5 percent slopes, eroded	13,654	3.6
LeC2	Lexington silt loam, 5 to 8 percent slopes, eroded	24,599	6.5
LeD2	Lexington silt loam, 8 to 12 percent slopes, eroded	3,686	1.0
LnB3	Lexington silty clay loam, 2 to 5 percent slopes, severely eroded	967	0.3
LnC3	Lexington silty clay loam, 5 to 8 percent slopes, severely eroded	13,503	3.6
LnD3	Lexington silty clay loam, 8 to 12 percent slopes, severely eroded	3,365	0.9
Lo	Lobelville silt loam, 0 to 3 percent slopes, occasionally flooded	105	*
LrA	Loring silt loam, 0 to 2 percent slopes	1,148	0.3
LrB2	Loring silt loam, 2 to 5 percent slopes, eroded	7,455	2.0
LrC2	Loring silt loam, 5 to 8 percent slopes, eroded	554	0.1
LuE2	Luverne fine sandy loam, 12 to 25 percent slopes, eroded	456	0.1
Ng	Nugent loamy sand, 0 to 3 percent slopes, occasionally flooded	299	*
Ok	Ochlockonee fine sandy loam, 0 to 3 percent slopes, rarely flooded	4,442	1.2
PaB2	Paden silt loam, 2 to 5 percent slopes, eroded	286	*
PaC2	Paden silt loam, 5 to 12 percent slopes, eroded	254	*
Pc	Pits, clay	286	*
Pg	Pits, gravel or sand	481	0.1
PoA	Providence silt loam, 0 to 2 percent slopes	173	*
PoB2	Providence silt loam, 2 to 5 percent slopes, eroded	9,331	2.5
PoC2	Providence silt loam, 5 to 8 percent slopes, eroded	13,619	3.6
PoD2	Providence silt loam, 8 to 12 percent slopes, eroded	3,891	1.0

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
PrB3	Providence silty clay loam, 2 to 5 percent slopes, severely eroded	495	0.1
PrC3	Providence silty clay loam, 5 to 8 percent slopes, severely eroded	5,689	1.5
PrD3	Providence silty clay loam, 8 to 12 percent slopes, severely eroded	7,220	1.9
Pu	Pruitton silt loam, 0 to 3 percent slopes, occasionally flooded	1,177	0.3
Re	Riverby-Ennis complex, 0 to 3 percent slopes, occasionally flooded	136	*
RO	Rosebloom and Bibb soils, 0 to 2 percent slopes, frequently flooded	9,629	2.5
RtA	Routon silt loam, 0 to 2 percent slopes	989	0.3
RuA	Routon silt loam, 0 to 2 percent slopes, ponded	347	*
SaC2	Saffell-Brandon complex, 5 to 12 percent slopes, eroded	1,216	0.3
SaE2	Saffell-Brandon complex, 12 to 25 percent slopes, eroded	7,491	2.0
SAF	Saffell, Smithdale, and Brandon soils, 25 to 60 percent slopes	5,884	1.6
SeD2	Smithdale loam, 8 to 12 percent slopes, eroded	2,102	0.6
SeD3	Smithdale loam, 8 to 12 percent slopes, severely eroded	3,833	1.0
SeE2	Smithdale loam, 12 to 25 percent slopes, eroded	40,056	10.6
SgD2	Smithdale-Lexington complex, 8 to 12 percent slopes, eroded	5,304	1.4
SgD3	Smithdale-Lexington complex, 8 to 12 percent slopes, severely eroded	20,990	5.5
SgE2	Smithdale-Lexington complex, 12 to 25 percent slopes, eroded	1,776	0.5
SgE3	Smithdale-Lexington complex, 12 to 25 percent slopes, severely eroded	5,116	1.3
SnD2	Smithdale-Luverne complex, 8 to 12 percent slopes, eroded	673	0.2
SnD3	Smithdale-Luverne complex, 8 to 12 percent slopes, severely eroded	1,039	0.3
SnE2	Smithdale-Luverne complex, 12 to 25 percent slopes, eroded	8,897	2.3
SRF	Smithdale, Remlik, and Luverne soils, 25 to 60 percent slopes	7,314	1.9
SuC	Sugargrove-Sengtown-Hawthorne complex, 5 to 12 percent slopes	64	*
SuE	Sugargrove-Sengtown-Hawthorne complex, 12 to 25 percent slopes	2,005	0.5
TmC	Tarklin-Minvale complex, 5 to 12 percent slopes	55	*
TmE	Tarklin-Minvale complex, 12 to 35 percent slopes	83	*
Ua	Udorthents, loamy	3,134	0.8
Ud	Udorthents-Urban land complex	1,026	0.3
Ur	Urban land	1,325	0.3
W	Water	21,544	5.7
	Total	379,600	100.0

* Less than 0.1 percent.

Table 5.--Land Capability Classification and Yields per Acre of Crops and Pasture

[Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil]

Map symbol and soil name	Land capability	Corn	Cotton lint	Pasture	Soybeans	Wheat
		Bu	*Lbs*	*AUM*	*Bu*	*Bu*
Ak:						
Arkabutla	2w	175	850	9	45	51
Ao:						
Arkabutla	5w	160	650	8.5	35	---
Rosebloom	6w	---	---	---	---	---
ArC2:						
Armour	3e	125	600	7.5	35	48
AuE2:						
Arundel	6e	---	---	---	---	---
Chickasaw	6e	---	---	---	---	---
BrB2:						
Brandon	2e	145	850	8.5	42	50
BrC2:						
Brandon	3e	120	600	7.5	33	44
BrC3:						
Brandon	3e	115	600	7	33	42
CaB2:						
Calloway	2e	125	600	8	35	48
CkA:						
Calloway	2w	175	850	9	45	51
Kurk	2w	175	850	9	45	51
Cl:						
Cascilla	1	200	1,000	10	50	55
Cn:						
Chenneby	2w	180	850	8.5	45	45
CVA:						
Chenneby	4w	180	850	8.5	44	49
Enville	4w	180	850	8.5	44	49
Arkabutla	4w	115	---	6	28	---
DaC3:						
Deanburg	4e	100	500	---	26	35
DeB3:						
Deanburg	3e	115	600	7	33	42
DeC2:						
Deanburg	3e	100	500	---	26	35
DnB2:						
Deanburg	2e	145	850	8.5	42	50

Table 5.--Land Capability Classification and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Cotton lint	Pasture	Soybeans	Wheat
		Bu	*Lbs*	*AUM*	*Bu*	*Bu*
DtB2:						
Dulac	2e	150	850	8.5	44	52
Tippah	2e	150	850	8.5	44	52
DtB3:						
Dulac	3e	120	600	7.5	35	44
Tippah	3e	120	600	7.5	35	44
DtC2:						
Dulac	3e	120	600	7.5	35	44
Tippah	3e	120	600	7.5	35	44
DtC3:						
Dulac	4e	105	550	6	28	---
Tippah	4e	105	550	6	28	39
DtD2:						
Dulac	4e	105	550	---	28	---
Tippah	4e	105	550	---	---	39
DtD3:						
Dulac	6e	---	---	5	---	---
Tippah	6e	100	550	---	---	25
Ea:						
Enville	2w	175	800	8.5	45	45
Eb:						
Enville	4w	180	850	8.5	44	49
Bibb	5w	110	---	6.5	35	45
FaB2:						
Falkner	2e	145	850	8.5	42	50
FeA:						
Feliciana	1	200	1,000	10	50	55
FeB2:						
Feliciana	2e	160	850	8.5	46	55
GrA:						
Grenada	2w	175	850	9	45	51
GrB2:						
Grenada	2e	150	850	8.5	44	52
HgF:						
Hapludults	7e	---	---	---	---	---
Gullied land	8e	---	---	---	---	---
HtE:						
Hawthorne	6s	---	---	---	---	---

Table 5.--Land Capability Classification and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Cotton lint	Pasture	Soybeans	Wheat
		Bu	*Lbs*	*AUM*	*Bu*	*Bu*
HTF:						
Hawthorne	7s	---	---	---	---	---
Sengtown	7e	---	---	---	---	---
Sugargrove	7e	---	---	---	---	---
HuB:						
Humphreys	2e	145	850	8.5	42	50
HuC:						
Humphreys	3e	115	600	7	30	42
Ik:						
Iuka	2w	180	850	8.5	45	45
KrA:						
Kurk	2w	180	850	8.5	45	45
LaB2:						
Lax	2e	145	850	8.5	42	50
LaC2:						
Lax	3e	100	---	6	26	35
LbC3:						
Lax	4e	100	---	6	26	35
LeA:						
Lexington	1	200	1,000	10	50	55
LeB2:						
Lexington	2e	160	900	8.5	46	55
LeC2:						
Lexington	3e	120	600	7.5	35	48
LeD2:						
Lexington	4e	110	550	6	28	39
LnB3:						
Lexington	3e	120	600	7.5	35	48
LnC3:						
Lexington	4e	110	550	6	28	39
LnD3:						
Lexington	6e	---	---	5	---	---
Lo:						
Lobelville	2w	170	850	8.5	44	49
LrA:						
Loring	2w	180	850	9	48	52
LrB2:						
Loring	2e	150	850	8.5	44	52
LrC2:						
Loring	3e	120	600	7.5	35	48
LuE2:						
Luverne	6e	---	---	---	---	---

Table 5.--Land Capability Classification and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Cotton lint	Pasture	Soybeans	Wheat
		Bu	*Lbs*	*AUM*	*Bu*	*Bu*
Ng:						
Nugent	3s	110	---	---	---	---
Ok:						
Ochlockonee	1	200	1,000	10	50	55
PaB2:						
Paden	2e	150	850	8.5	44	52
PaC2:						
Paden	3e	115	600	7.5	33	42
Pc:						
Pits, clay	8	---	---	---	---	---
Pg:						
Pits, gravel or sand	8	---	---	---	---	---
PoA:						
Providence	2w	175	850	9	45	51
PoB2:						
Providence	2e	150	850	8.5	44	52
PoC2:						
Providence	3e	120	600	7.5	35	44
PoD2:						
Providence	4e	105	---	6	28	39
PrB3:						
Providence	3e	120	600	7.5	35	44
PrC3:						
Providence	4e	105	550	---	28	---
PrD3:						
Providence	6e	---	---	---	---	---
Pu:						
Pruitton	2w	175	850	9	45	51
Re:						
Riverby	4s	---	---	---	---	---
Ennis	2w	160	750	7	40	42
RO:						
Rosebloom	6w	120	---	6.5	37	---
Bibb	6w	110	---	6.5	37	45
RtA:						
Routon	3w	65	600	8	37	---
RuA:						
Routon	3w	65	500	6.5	35	---
SaC2:						
Saffell	4e	---	---	---	---	---
Brandon	4e	---	---	---	---	---

Table 5.--Land Capability Classification and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Cotton lint	Pasture	Soybeans	Wheat
		Bu	*Lbs*	*AUM*	*Bu*	*Bu*
SaE2:						
Saffell	6e	---	---	---	---	---
Brandon	6e	---	---	6	---	---
SAF:						
Saffell	7e	---	---	---	---	---
Smithdale	7e	---	---	---	---	---
Brandon	7e	---	---	---	---	---
SeD2:						
Smithdale	4e	---	---	---	---	---
SeD3:						
Smithdale	6e	---	---	---	---	---
SeE2:						
Smithdale	6e	---	---	---	---	---
SgD2:						
Smithdale	4e	---	---	---	---	---
Lexington	4e	110	550	6	28	39
SgD3:						
Smithdale	6e	---	---	---	---	---
Lexington	6e	---	---	5	---	---
SgE2:						
Smithdale	6e	---	---	---	---	---
Lexington	6e	---	---	6	---	---
SgE3:						
Smithdale	7e	---	---	---	---	---
Lexington	6e	---	---	6	---	---
SnD2:						
Smithdale	4e	---	---	---	---	---
Luverne	4e	---	---	---	---	---
SnD3:						
Smithdale	6e	---	---	---	---	---
Luverne	6e	---	---	---	---	---
SnE2:						
Smithdale	6e	---	---	---	---	---
Luverne	6e	---	---	---	---	---
SRF:						
Smithdale	7e	---	---	---	---	---
Remlik	7e	---	---	---	---	---
Luverne	7e	---	---	---	---	---

Table 5.--Land Capability Classification and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Cotton lint	Pasture	Soybeans	Wheat
		Bu	*Lbs*	*AUM*	*Bu*	*Bu*
SuC:						
Sugargrove	4e	---	---	---	---	---
Sengtown	3e	110	---	---	30	42
Hawthorne	4s	---	---	---	---	---
SuE:						
Sugargrove	6e	---	---	---	---	---
Sengtown	6e	---	---	---	---	35
Hawthorne	6s	---	---	---	---	---
TmC:						
Tarklin	3e	110	---	---	30	39
Minvale	3e	110	---	---	30	42
TmE:						
Tarklin	6e	---	---	---	---	---
Minvale	6e	---	---	---	---	---
Ua:						
Udorthents, loamy	4e	---	---	---	---	---
Ud:						
Udorthents, loamy	4e	---	---	---	---	---
Urban Land	8e	---	---	---	---	---
Ur:						
Urban Land	8e	---	---	---	---	---
W:						
Water.						

Table 6.--Prime Farmland

[Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified]

Map symbol	Map unit name	Farmland classification
Ak	Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland where protected from flooding or not frequently flooded during the growing season
Cl	Cascilla silt loam, 0 to 3 percent slopes, rarely flooded	All areas are prime farmland
Cn	Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland where protected from flooding or not frequently flooded during the growing season
DtB2	Dulac-Tippah complex, 2 to 5 percent slopes, eroded	All areas are prime farmland
Ea	Enville silt loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland where protected from flooding or not frequently flooded during the growing season
FeA	Feliciana silt loam, 0 to 2 percent slopes	All areas are prime farmland
HuB	Humphreys gravelly silt loam, 2 to 5 percent slopes	All areas are prime farmland
Ik	Iuka loam, 0 to 2 percent slopes, occasionally flooded	All areas are prime farmland
KrA	Kurk silt loam, 0 to 3 percent slopes	All areas are prime farmland
LaB2	Lax silt loam, 2 to 5 percent slopes, eroded	All areas are prime farmland
LeA	Lexington silt loam, 0 to 2 percent slopes	All areas are prime farmland
LeB2	Lexington silt loam, 2 to 5 percent slopes, eroded	All areas are prime farmland
Lo	Lobelville silt loam, 0 to 3 percent slopes, occasionally flooded	All areas are prime farmland
LrA	Loring silt loam, 0 to 2 percent slopes	All areas are prime farmland
Ok	Ochlockonee fine sandy loam, 0 to 3 percent slopes, rarely flooded	All areas are prime farmland
PaB2	Paden silt loam, 2 to 5 percent slopes, eroded	All areas are prime farmland
PoB2	Providence silt loam, 2 to 5 percent slopes, eroded	All areas are prime farmland
Pu	Pruitton silt loam, 0 to 3 percent slopes, occasionally flooded	Prime farmland where protected from flooding or not frequently flooded during the growing season
CkA	Calloway-Kurk complex, 0 to 2 percent slopes	Prime farmland where drained
RtA	Routon silt loam, 0 to 2 percent slopes	Prime farmland where drained
CVA	Chenneby, Enville, and Arkabutla soils, 0 to 2 percent slopes, frequently flooded	Prime farmland where drained and either protected from flooding or not frequently flooded during the growing season

Table 7.--Forestland Productivity

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Ak:				
Arkabutla	Cherrybark oak	105	57	American sycamore, cherrybark oak, eastern cottonwood, green ash, loblolly pine, bald cypress
	Eastern cottonwood	110	---	
	Green ash	95	57	
	Loblolly pine	100	129	
	Water oak	100	---	
	Willow oak	100	---	
	Bald cypress	---	---	
Ao:				
Arkabutla	Cherrybark oak	105	57	American sycamore, cherrybark oak, eastern cottonwood, green ash, loblolly pine, bald cypress
	Eastern cottonwood	110	---	
	Green ash	95	57	
	Loblolly pine	100	129	
	Water oak	100	---	
	Willow oak	100	---	
	Bald cypress	---	---	
Rosebloom	American sycamore	80	---	Cherrybark oak, eastern cottonwood, green ash, loblolly pine, water oak, willow oak, bald cypress
	Cherrybark oak	95	129	
	Eastern cottonwood	100	129	
	Green ash	95	57	
	Water oak	95	86	
	Willow oak	90	86	
	Bald cypress	---	---	
ArC2:				
Armour	Loblolly pine	77	100	Hickory, loblolly pine, southern red oak, white oak, yellow-poplar
	Northern red oak	70	57	
	White oak	70	57	
	Yellow-poplar	90	86	
AuE2:				
Arundel	Loblolly pine	70	86	Loblolly pine, shortleaf pine
	Shortleaf pine	60	86	
Chickasaw	Black oak	---	---	Loblolly pine, shortleaf pine, southern red oak, yellow-poplar
	Shortleaf pine	70	114	
	Southern red oak	70	57	
	White oak	---	---	
	Yellow-poplar	90	86	
BrB2:				
Brandon	Black oak	70	57	Eastern white pine, loblolly pine, northern red oak, shortleaf pine, white oak
	Chestnut oak	---	---	
	Hickory	---	---	
	Scarlet oak	69	57	
	Southern red oak	71	57	
	White oak	61	43	
	Yellow-poplar	80	72	
BrC2:				
Brandon	Black oak	70	57	Eastern white pine, loblolly pine, northern red oak, shortleaf pine, white oak
	Chestnut oak	---	---	
	Hickory	---	---	
	Scarlet oak	69	57	
	Southern red oak	71	57	
	White oak	61	43	
	Yellow-poplar	80	72	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
BrC3:				
Brandon	Black oak	70	57	Eastern white pine, loblolly pine, northern red oak, shortleaf pine, white oak
	Chestnut oak	---	---	
	Hickory	---	---	
	Scarlet oak	69	57	
	Southern red oak	71	57	
	White oak	61	43	
	Yellow-poplar	80	72	
CaB2:				
Calloway	Cherrybark oak	80	86	Cherrybark oak, Shumard's oak, tuliptree, water oak
	Loblolly pine	80	114	
	Shortleaf pine	80	129	
	Water oak	90	86	
CkA:				
Calloway	Cherrybark oak	80	86	Cherrybark oak, Shumard's oak, tuliptree, water oak
	Loblolly pine	80	114	
	Shortleaf pine	80	129	
	Water oak	90	86	
Kurk	Cherrybark oak	85	100	Cherrybark oak, eastern cottonwood, green ash, tuliptree
	Hickory	85	---	
	Red maple	75	43	
	Southern red oak	80	57	
	White oak	80	57	
Cl:				
Cascilla	Cherrybark oak	112	200	American sycamore, cherrybark oak, eastern cottonwood, loblolly pine, tuliptree
	Eastern cottonwood	110	157	
	Loblolly pine	93	143	
	Tuliptree	115	129	
	Water oak	104	100	
Cn:				
Chenneby	American sycamore	100	157	American sycamore, loblolly pine, water oak, yellow-poplar
	Loblolly pine	100	157	
	Water oak	100	100	
	Yellow-poplar	100	129	
CVA:				
Chenneby	American sycamore	100	157	American sycamore, loblolly pine, water oak, yellow-poplar
	Loblolly pine	100	157	
	Water oak	100	100	
	Yellow-poplar	100	129	
Enville	Water oak	95	86	Eastern cottonwood, shortleaf pine, yellow-poplar
	Yellow-poplar	100	114	
Arkabutla	Cherrybark oak	105	57	American sycamore, cherrybark oak, eastern cottonwood, green ash, loblolly pine, bald cypress
	Eastern cottonwood	110	---	
	Green ash	95	57	
	Loblolly pine	100	129	
	Water oak	100	---	
	Bald cypress	---	---	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
DaC3:				
Deanburg	Mockernut hickory	---	---	Loblolly pine, shortleaf pine
	Southern red oak	70	57	
DeB3:				
Deanburg	Mockernut hickory	---	---	Loblolly pine, shortleaf pine
	Southern red oak	70	57	
DeC2:				
Deanburg	Mockernut hickory	---	---	Loblolly pine, shortleaf pine
	Southern red oak	70	57	
DnB2:				
Deanburg	Cherrybark oak	80	86	Cherrybark oak, eastern cottonwood, loblolly pine
	Mockernut hickory	---	---	
	Southern red oak	70	57	
	White oak	70	57	
DtB2:				
Dulac	Loblolly pine	80	114	Loblolly pine, southern red oak
	Shortleaf pine	75	114	
	Southern red oak	70	57	
Tippah	Cherrybark oak	95	129	Cherrybark oak, loblolly pine, Shumard's oak, yellow-poplar
	Loblolly pine	78	114	
	Shumard's oak	95	72	
	White oak	80	57	
	Yellow-poplar	90	86	
DtB3:				
Dulac	Loblolly pine	80	114	Loblolly pine, southern red oak
	Shortleaf pine	75	114	
	Southern red oak	70	57	
Tippah	Cherrybark oak	95	129	Cherrybark oak, loblolly pine, Shumard's oak, yellow-poplar
	Loblolly pine	78	114	
	Shumard's oak	95	72	
	White oak	80	57	
	Yellow-poplar	90	86	
DtC2:				
Dulac	Loblolly pine	80	114	Loblolly pine, southern red oak
	Shortleaf pine	75	114	
	Southern red oak	70	57	
Tippah	Cherrybark oak	95	129	Cherrybark oak, loblolly pine, Shumard's oak, yellow-poplar
	Loblolly pine	78	114	
	Shumard's oak	95	72	
	White oak	80	57	
	Yellow-poplar	90	86	
DtC3:				
Dulac	Loblolly pine	80	114	Loblolly pine, southern red oak
	Shortleaf pine	75	114	
	Southern red oak	70	57	
Tippah	Cherrybark oak	95	129	Cherrybark oak, loblolly pine, Shumard's oak, yellow-poplar
	Loblolly pine	78	114	
	Shumard's oak	95	72	
	White oak	80	57	
	Yellow-poplar	90	86	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
DtD2:				
Dulac	Loblolly pine	80	114	Loblolly pine, southern red oak
	Shortleaf pine	75	114	
	Southern red oak	70	57	
Tippah	Cherrybark oak	95	129	Cherrybark oak, loblolly pine, Shumard's oak, yellow-poplar
	Loblolly pine	78	114	
	Shumard's oak	95	72	
	White oak	80	57	
	Yellow-poplar	90	86	
DtD3:				
Dulac	Loblolly pine	80	114	Loblolly pine, southern red oak
	Shortleaf pine	75	114	
	Southern red oak	70	57	
Tippah	Cherrybark oak	95	129	Cherrybark oak, loblolly pine, Shumard's oak, yellow-poplar
	Loblolly pine	78	114	
	Shumard's oak	95	72	
	White oak	80	57	
	Yellow-poplar	90	86	
Ea:				
Enville	Water oak	95	86	Eastern cottonwood, shortleaf pine, yellow-poplar
	Yellow-poplar	100	114	
Eb:				
Enville	Water oak	95	86	Eastern cottonwood, shortleaf pine, yellow-poplar
	Yellow-poplar	100	114	
Bibb	Blackgum	---	---	Loblolly pine
FaB2:				
Falkner	Loblolly pine	85	114	Cherrybark oak, loblolly pine, shortleaf pine
	Shortleaf pine	75	114	
FeA:				
Feliciana	Cherrybark oak	90	114	Cherrybark oak, loblolly pine, southern red oak
	Loblolly pine	90	129	
FeB2:				
Feliciana	Cherrybark oak	90	114	---
	Loblolly pine	90	129	
GrA:				
Grenada	Cherrybark oak	85	100	Cherrybark oak, loblolly pine, slash pine, water oak
	Loblolly pine	95	143	
	Slash pine	95	172	
	Water oak	80	72	
GrB2:				
Grenada	Cherrybark oak	85	100	Cherrybark oak, loblolly pine, slash pine, water oak
	Loblolly pine	95	143	
	Slash pine	95	172	
	Water oak	80	72	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
HgF:				
Hapludults.				
Gullied land.				
HtE:				
Hawthorne	Mockernut hickory	---	---	Loblolly pine, shortleaf pine
	Shortleaf pine	60	86	
	Southern red oak	60	43	
HTF:				
Hawthorne	Beech	---	---	Eastern redcedar, Virginia pine
	Chestnut oak	60	43	
	Eastern redcedar	40	35	
	Loblolly pine	60	86	
	Virginia pine	60	75	
Sengtown.				
Sugargrove.				
HuB:				
Humphreys	Black walnut	---	---	Black walnut, hickory, loblolly pine, white ash, white oak, yellow-poplar
	Loblolly pine	90	129	
	Shortleaf pine	70	114	
	Southern red oak	70	57	
	Yellow-poplar	100	114	
HuC:				
Humphreys	Black walnut	---	---	Black walnut, hickory, loblolly pine, white ash, white oak, yellow-poplar
	Loblolly pine	90	129	
	Northern red oak	70	57	
	Shortleaf pine	70	114	
	Yellow-poplar	100	114	
Ik:				
Iuka	Eastern cottonwood	105	143	Eastern cottonwood, loblolly pine, tuliptree
	Loblolly pine	100	129	
	Water oak	100	100	
KrA:				
Kurk	Cherrybark oak	85	100	Cherrybark oak, eastern cottonwood, green ash, tuliptree
	Hickory	85	---	
	Red maple	75	43	
	Southern red oak	80	57	
	White oak	80	57	
LaB2:				
Lax	Loblolly pine	80	114	Chestnut oak, eastern redcedar, hickory, southern red oak, Virginia pine, white oak
	Southern red oak	70	57	
LaC2:				
Lax	Loblolly pine	80	114	Chestnut oak, eastern redcedar, hickory, southern red oak, Virginia pine, white oak
	Southern red oak	70	57	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
LbC3:				
Lax	Loblolly pine	80	114	Chestnut oak, eastern redcedar, hickory, southern red oak, Virginia pine, white oak
	Southern red oak	70	57	
LeA:				
Lexington	Cherrybark oak	80	86	Northern red oak, southern red oak, white oak, yellow-poplar
	Loblolly pine	80	114	
	Shortleaf pine	70	114	
	Southern red oak	70	57	
	Yellow-poplar	90	86	
LeB2:				
Lexington	Cherrybark oak	80	86	Northern red oak, southern red oak, white oak, yellow-poplar
	Loblolly pine	80	114	
	Shortleaf pine	70	114	
	Southern red oak	70	57	
	Yellow-poplar	90	86	
LeC2:				
Lexington	Cherrybark oak	80	86	Cherrybark oak, loblolly pine, shortleaf pine, southern red oak, yellow-poplar
	Loblolly pine	80	114	
	Shortleaf pine	70	114	
	Southern red oak	70	57	
	Yellow-poplar	90	86	
LeD2:				
Lexington	Cherrybark oak	80	86	Cherrybark oak, loblolly pine, shortleaf pine, southern red oak, yellow-poplar
	Loblolly pine	80	114	
	Shortleaf pine	70	114	
	Southern red oak	70	57	
	Yellow-poplar	90	86	
LnB3:				
Lexington	Cherrybark oak	80	86	Northern red oak, southern red oak, white oak, yellow-poplar
	Loblolly pine	80	114	
	Shortleaf pine	70	114	
	Southern red oak	70	57	
	Yellow-poplar	90	86	
LnC3:				
Lexington	Cherrybark oak	80	86	Cherrybark oak, loblolly pine, shortleaf pine, southern red oak, yellow-poplar
	Loblolly pine	80	114	
	Shortleaf pine	70	114	
	Southern red oak	70	57	
	Yellow-poplar	90	86	
LnD3:				
Lexington	Cherrybark oak	80	86	Cherrybark oak, loblolly pine, shortleaf pine, southern red oak, yellow-poplar
	Loblolly pine	80	114	
	Shortleaf pine	70	114	
	Southern red oak	70	57	
	Yellow-poplar	90	86	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Lo:				
Lobelville	Black walnut	70	57	Black walnut, Shumard's oak, yellow-poplar
	Loblolly pine	90	129	
	Southern red oak	76	57	
	White oak	70	57	
	Yellow-poplar	94	100	
LrA:				
Loring	Cherrybark oak	86	100	Cherrybark oak, loblolly pine, shortleaf pine, southern red oak, tuliptree
	Loblolly pine	85	114	
	Southern red oak	74	57	
	Water oak	82	72	
LrB2:				
Loring	Cherrybark oak	86	100	Cherrybark oak, loblolly pine, shortleaf pine, southern red oak, tuliptree
	Loblolly pine	85	114	
	Southern red oak	74	57	
	Water oak	82	72	
LrC2:				
Loring	Cherrybark oak	86	100	Cherrybark oak, loblolly pine, shortleaf pine, southern red oak, tuliptree
	Loblolly pine	85	114	
	Southern red oak	74	57	
	Water oak	82	72	
LuE2:				
Luverne	Loblolly pine	81	114	Loblolly pine, longleaf pine
	Shortleaf pine	73	114	
Ng:				
Nugent	Loblolly pine	90	129	Loblolly pine, slash pine, water oak, yellow-poplar
	Slash pine	90	157	
	Water oak	85	86	
	Willow oak	85	86	
Ok:				
Ochlockonee	Eastern cottonwood	100	129	Eastern cottonwood, loblolly pine, tuliptree
	Loblolly pine	100	157	
	Slash pine	100	186	
	Tuliptree	110	129	
	Water oak	80	72	
PaB2:				
Paden	Yellow-poplar	90	90	Yellow-poplar, cherrybark oak, white oak
	Cherrybark oak	75	57	
	White oak	70	57	
PaC2:				
Paden	Yellow-poplar	90	90	Yellow-poplar, cherrybark oak, white oak
	Cherrybark oak	75	57	
	White oak	70	57	
PaC3:				
Paden	Yellow-poplar	85	85	Yellow-poplar, cherrybark oak, white oak
	Cherrybark oak	75	57	
	White oak	70	57	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Pc:				
Pits, clay.				
Pg:				
Pits, gravel or sand.				
PoA:				
Providence	Loblolly pine	87	129	Loblolly pine,
	Longleaf pine	73	86	Shumard's oak,
				tuliptree
PoB2:				
Providence	Loblolly pine	87	129	Loblolly pine,
	Longleaf pine	73	86	Shumard's oak,
				yellow-poplar
PoC2:				
Providence	Loblolly pine	84	114	Loblolly pine,
	Shortleaf pine	64	100	Shumard's oak,
				yellow-poplar
PoD2:				
Providence	Loblolly pine	84	114	Loblolly pine,
	Shortleaf pine	64	100	Shumard's oak,
				yellow-poplar
PrB3:				
Providence	Loblolly pine	84	114	Loblolly pine,
	Shortleaf pine	64	100	Shumard's oak,
				yellow-poplar
PrC3:				
Providence	Loblolly pine	84	114	Loblolly pine,
	Shortleaf pine	64	100	Shumard's oak,
				yellow-poplar
PrD3:				
Providence	Loblolly pine	84	114	Loblolly pine,
	Shortleaf pine	64	100	Shumard's oak,
				yellow-poplar
Pu:				
Pruitton	Loblolly pine	90	129	Black walnut,
	Shortleaf pine	80	129	loblolly pine,
	White oak	80	57	yellow-poplar
	Yellow-poplar	100	114	
Re:				
Riverby	American sycamore	85	80	American sycamore,
	Yellow-poplar	80	80	yellow-poplar
Ennis	Loblolly pine	90	129	Black walnut,
	White oak	80	57	loblolly pine,
	Yellow-poplar	100	114	yellow-poplar

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
RO:				
Rosebloom	American sycamore	80	86	Cherrybark oak, eastern cottonwood, green ash, loblolly pine, water oak, willow oak oak, bald cypress
	Cherrybark oak	95	129	
	Eastern cottonwood	100	129	
	Green ash	95	57	
	Pin oak	---	---	
	Red maple	---	---	
	Water oak	95	86	
	Willow oak	90	86	
	Bald cypress	---	---	
Bibb	Blackgum	---	---	Loblolly pine
RtA:				
Routon	Cherrybark oak	110	186	American sycamore, cherrybark oak, eastern cottonwood, white ash
	Southern red oak	80	57	
	Water oak	90	86	
	White ash	90	57	
	White oak	80	57	
	Willow oak	90	86	
RuA:				
Routon	Cherrybark oak	110	186	American sycamore, cherrybark oak, eastern cottonwood, white ash
	Southern red oak	80	57	
	Water oak	90	86	
	White ash	90	57	
	White oak	80	57	
	Willow oak	90	86	
SaC2:				
Saffell.				
Brandon	Black oak	70	---	Loblolly pine, northern red oak, shortleaf pine, white oak
	Hickory	---	---	
	Loblolly pine	74	100	
	Shortleaf pine	66	---	
	Southern red oak	71	---	
	White oak	61	---	
SaE2:				
Saffell.				
Brandon	Black oak	70	57	Eastern white pine, loblolly pine, northern red oak, shortleaf pine, white oak
	Chestnut oak	---	---	
	Hickory	---	---	
	Scarlet oak	69	57	
	Southern red oak	71	57	
	Tuliptree	80	72	
	White oak	61	43	
SAF:				
Saffell	Loblolly pine	67	86	Loblolly pine
	Longleaf pine	---	---	
	Southern red oak	---	---	
	Water oak	---	---	
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
Brandon.				

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
SeD2:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
SeD3:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
SeE2:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
SgD2:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
Lexington	Cherrybark oak	80	86	Cherrybark oak,
	Loblolly pine	80	114	loblolly pine,
	Shortleaf pine	70	114	shortleaf pine,
	Southern red oak	70	57	southern red oak,
	Tuliptree	90	86	tuliptree
SgD3:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
Lexington	Cherrybark oak	80	86	Cherrybark oak,
	Loblolly pine	80	114	loblolly pine,
	Shortleaf pine	70	114	shortleaf pine,
	Southern red oak	70	57	southern red oak,
	Tuliptree	90	86	tuliptree
SgE2:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
Lexington	Cherrybark oak	80	86	Cherrybark oak,
	Loblolly pine	80	114	loblolly pine,
	Shortleaf pine	70	114	shortleaf pine,
	Southern red oak	70	57	southern red oak,
	Tuliptree	90	86	tuliptree
SgE3:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
Lexington	Cherrybark oak	80	86	Cherrybark oak,
	Loblolly pine	80	114	loblolly pine,
	Shortleaf pine	70	114	shortleaf pine,
	Southern red oak	70	57	southern red oak,
	Tuliptree	90	86	tuliptree
SnD2:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
Luverne	Loblolly pine	81	114	Loblolly pine,
	Shortleaf pine	73	114	shortleaf pine

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
SnD3:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
Luverne	Loblolly pine	81	114	Loblolly pine, shortleaf pine
	Shortleaf pine	73	114	
SnE2:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
Luverne	Loblolly pine	81	114	Loblolly pine, shortleaf pine
	Shortleaf pine	73	114	
SRF:				
Smithdale	Loblolly pine	80	114	Loblolly pine
	Shortleaf pine	69	114	
Remlik	Loblolly pine	80	114	Loblolly pine
	Southern red oak	74	57	
	Virginia pine	74	114	
	Yellow-poplar	80	72	
Luverne	Loblolly pine	81	114	Loblolly pine, shortleaf pine
	Shortleaf pine	73	114	
SuC:				
Sugargrove.				
Sengtown	Shortleaf pine	70	114	Black walnut, eastern white pine, hickory, southern red oak, white ash, white oak, yellow-poplar
	Southern red oak	70	57	
	Yellow-poplar	90	86	
Hawthorne.				
SuE:				
Sugargrove.				
Sengtown	Shortleaf pine	70	114	Black walnut, eastern white pine, hickory, southern red oak, white ash, white oak, yellow-poplar
	Southern red oak	70	57	
	Yellow-poplar	90	86	
Hawthorne.				
TmC:				
Tarklin	Chestnut oak	80	57	Chestnut oak, Virginia pine, chestnut oak, eastern redcedar
	Virginia pine	70	85	
	Chestnut oak	65	57	
	Eastern redcedar	40	40	
Minvale	Loblolly pine	80	114	Black walnut, loblolly pine, yellow-poplar
	Shortleaf pine	70	114	
	Virginia pine	70	114	
	White oak	70	57	
	Yellow-poplar	90	86	

Table 7.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
			cu ft/ac	
TmE:				
Tarklin	Chestnut oak	80	57	Chestnut oak, Virginia pine, white oak, eastern redcedar
	Virginia pine	70	85	
	White oak	65	57	
	Eastern redcedar	40	40	
Minvale	Loblolly pine	80	114	Black walnut, loblolly pine, yellow-poplar
	Shortleaf pine	70	114	
	Virginia pine	70	114	
	White oak	70	57	
	Yellow-poplar	90	86	
Ua:				
Udorthents, loamy.				
Ud:				
Udorthents, loamy.				
Urban land.				
Ur:				
Urban land.				
W:				
Water.				

Table 8a.--Forestland Management (Part 1)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
Ak:							
Arkabutla	93	Moderate		Moderately suited		Severe	
		Flooding	0.50	Wetness	0.50	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
				Flooding	0.50		
Ao:							
Arkabutla	57	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Wetness	0.50		
				Low strength	0.50		
Rosebloom	43	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Wetness	1.00		
				Low strength	0.50		
ArC2:							
Armour	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
AuE2:							
Arundel	60	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Stickiness/slope	0.50	Low strength	0.50		
Chickasaw	35	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Stickiness/slope	0.50	Low strength	0.50		
BrB2:							
Brandon	92	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
BrC2:							
Brandon	90	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
BrC3:							
Brandon	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
CaB2:							
Calloway	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Wetness	0.50	Low strength	1.00
				Low strength	0.50		
CkA:							
Calloway	56	Moderate		Moderately suited		Severe	
		Low strength	0.50	Wetness	0.50	Low strength	1.00
				Low strength	0.50		

Table 8a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
CkA:							
Kurk	38	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Low strength	0.50		
Cl:							
Cascilla	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
Cn:							
Chenneby	93	Moderate		Moderately suited		Severe	
		Flooding	0.50	Low strength	0.50	Low strength	1.00
		Low strength	0.50	Flooding	0.50		
				Wetness	0.50		
CVA:							
Chenneby	45	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
				Wetness	0.50		
Enville	30	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
				Wetness	0.50		
Arkabutla	20	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Wetness	0.50		
				Low strength	0.50		
DaC3:							
Deanburg	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
DeB3:							
Deanburg	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
DeC2:							
Deanburg	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
DnB2:							
Deanburg	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
DtB2:							
Dulac	69	Moderate		Moderately suited		Severe	
		Low strength	0.50	Wetness	0.50	Low strength	1.00
				Low strength	0.50		
Tippah	27	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
		Stickiness/slope	0.50	Wetness	0.50		

Table 8a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
DtB3:							
Dulac	69	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Low strength	0.50		
Tippah	27	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
		Stickiness/slope	0.50	Wetness	0.50		
DtC2:							
Dulac	70	Moderate		Moderately suited		Severe	
		Low strength	0.50	Wetness	0.50	Low strength	1.00
				Low strength	0.50		
				Slope	0.50		
Tippah	30	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
		Stickiness/slope	0.50	Wetness	0.50		
				Slope	0.50		
DtC3:							
Dulac	70	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Low strength	0.50		
				Slope	0.50		
Tippah	30	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
		Stickiness/slope	0.50	Wetness	0.50		
				Slope	0.50		
DtD2:							
Dulac	53	Moderate		Moderately suited		Severe	
		Low strength	0.50	Wetness	0.50	Low strength	1.00
				Slope	0.50		
				Low strength	0.50		
Tippah	44	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
		Stickiness/slope	0.50	Low strength	0.50		
				Wetness	0.50		
DtD3:							
Dulac	53	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Slope	0.50		
				Low strength	0.50		
Tippah	44	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
		Stickiness/slope	0.50	Low strength	0.50		
				Wetness	0.50		
Ea:							
Enville	97	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
				Wetness	0.50		

Table 8a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
Eb:							
Enville	85	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
				Wetness	0.50		
Bibb	15	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Wetness	1.00		
				Low strength	0.50		
FaB2:							
Falkner	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
FeA:							
Feliciana	89	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
FeB2:							
Feliciana	92	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
GrA:							
Grenada	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
GrB2:							
Grenada	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
HgF:							
Hapludults	60	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Gullied land	40	Not rated		Not rated		Not rated	
HtE:							
Hawthorne	100	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
		Landslides	0.14	Landslides	0.14		
HTF:							
Hawthorne	45	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Landslides	0.60	Landslides	0.60		
Sengtown	30	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Landslides	0.60	Landslides	0.60		
		Low strength	0.50	Low strength	0.50		

Table 8a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
HTF:							
Sugargrove	25	Moderate		Poorly suited		Severe	
		Landslides	0.60	Slope	1.00	Low strength	1.00
		Slope	0.50	Landslides	0.60		
				Low strength	0.50		
HuB:							
Humphreys	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
HuC:							
Humphreys	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
Ik:							
Iuka	89	Moderate		Moderately suited		Severe	
		Flooding	0.50	Low strength	0.50	Low strength	1.00
		Low strength	0.50	Flooding	0.50		
KrA:							
Kurk	94	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Low strength	0.50		
LaB2:							
Lax	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Wetness	0.50	Low strength	1.00
				Low strength	0.50		
LaC2:							
Lax	97	Moderate		Moderately suited		Severe	
		Low strength	0.50	Wetness	0.50	Low strength	1.00
				Low strength	0.50		
				Slope	0.50		
LbC3:							
Lax	97	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Low strength	0.50		
				Slope	0.50		
LeA:							
Lexington	92	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
LeB2:							
Lexington	94	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
LeC2:							
Lexington	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
LeD2:							
Lexington	97	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		

Table 8a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
LnB3:							
Lexington-----------	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
LnC3:							
Lexington-----------	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
LnD3:							
Lexington-----------	97	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Lo:							
Lobelville----------	93	Moderate		Moderately suited		Severe	
		Flooding	0.50	Wetness	0.50	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
				Flooding	0.50		
LrA:							
Loring--------------	90	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
LrB2:							
Loring--------------	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
LrC2:							
Loring--------------	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
				Wetness	0.50		
LuE2:							
Luverne-------------	100	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
		Stickiness/slope	0.50	Landslides	0.13		
		Landslides	0.13				
Ng:							
Nugent--------------	100	Moderate		Moderately suited		Moderate	
		Flooding	0.50	Flooding	0.50	Low strength	0.50
Ok:							
Ochlockonee---------	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
PaB2:							
Paden---------------	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		

Table 8a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
PaC2:							
Paden----------------	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
				Slope	0.50		
PaC3:							
Paden----------------	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
				Slope	0.50		
Pc:							
Pits, clay-----------	100	Not rated		Not rated		Not rated	
Pg:							
Pits, gravel or sand	100	Not rated		Not rated		Not rated	
PoA:							
Providence-----------	97	Moderate		Moderately suited		Severe	
		Low strength	0.50	Wetness	0.50	Low strength	1.00
				Low strength	0.50		
PoB2:							
Providence-----------	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
PoC2:							
Providence-----------	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
				Slope	0.50		
PoD2:							
Providence-----------	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
				Wetness	0.50		
PrB3:							
Providence-----------	100	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Low strength	0.50		
PrC3:							
Providence-----------	100	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Low strength	0.50		
				Slope	0.50		
PrD3:							
Providence-----------	100	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Slope	0.50		
				Low strength	0.50		

Table 8a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
Pu:							
Pruitton	95	Moderate		Moderately suited		Severe	
		Flooding	0.50	Low strength	0.50	Low strength	1.00
		Low strength	0.50	Flooding	0.50		
Re:							
Riverby	55	Moderate		Moderately suited		Moderate	
		Flooding	0.50	Flooding	0.50	Low strength	0.50
		Sandiness	0.50				
Ennis	45	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
RO:							
Rosebloom	85	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Wetness	1.00		
				Low strength	0.50		
Bibb	15	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Wetness	1.00		
				Low strength	0.50		
RtA:							
Routon	100	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Low strength	0.50		
RuA:							
Routon	100	Moderate		Poorly suited		Severe	
		Low strength	0.50	Ponding	1.00	Low strength	1.00
				Wetness	1.00		
				Low strength	0.50		
SaC2:							
Saffell	59	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
Brandon	33	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
SaE2:							
Saffell	67	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Sandiness	0.50	Low strength	0.50		
		Landslides	0.10	Landslides	0.10		
Brandon	33	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Landslides	0.10	Low strength	0.50		
				Landslides	0.10		

Table 8a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
SAF:							
Saffell-------------	51	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Sandiness	0.50	Low strength	0.50		
		Landslides	0.20	Landslides	0.20		
Smithdale-----------	25	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
		Landslides	0.20	Landslides	0.20		
Brandon-------------	24	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Landslides	0.20	Low strength	0.50		
				Landslides	0.20		
SeD2:							
Smithdale-----------	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
SeD3:							
Smithdale-----------	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
SeE2:							
Smithdale-----------	100	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Landslides	0.14	Low strength	0.50		
				Landslides	0.14		
SgD2:							
Smithdale-----------	67	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Lexington-----------	33	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
SgD3:							
Smithdale-----------	67	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Lexington-----------	33	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
SgE2:							
Smithdale-----------	67	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Lexington-----------	33	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		

Table 8a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
SgE3:							
Smithdale-----------	67	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Lexington-----------	33	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
SnD2:							
Smithdale-----------	75	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Luverne-------------	25	Moderate		Moderately suited		Moderate	
		Stickiness/slope	0.50	Slope	0.50	Low strength	0.50
SnD3:							
Smithdale-----------	75	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
Luverne-------------	25	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
		Stickiness/slope	0.50	Low strength	0.50		
				Stickiness; high plasticity index	0.50		
SnE2:							
Smithdale-----------	75	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Landslides	0.14	Low strength	0.50		
				Landslides	0.14		
Luverne-------------	25	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
		Stickiness/slope	0.50	Landslides	0.13		
		Landslides	0.13				
SRF:							
Smithdale-----------	65	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
		Landslides	0.20	Landslides	0.20		
Remlik--------------	20	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Landslides	0.60	Landslides	0.60		
Luverne-------------	15	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Landslides	0.60	Landslides	0.60		
		Low strength	0.50				
SuC:							
Sugargrove----------	45	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		

Table 8a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Suitability for log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value
SuC:							
Sengtown	35	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
		Stickiness/slope	0.50	Slope	0.50		
Hawthorne	20	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
SuE:							
Sugargrove	45	Moderate		Poorly suited		Severe	
		Low strength	0.50	Slope	1.00	Low strength	1.00
		Landslides	0.09	Low strength	0.50		
				Landslides	0.09		
Sengtown	35	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Stickiness/slope	0.50	Low strength	0.50		
		Landslides	0.16	Landslides	0.16		
Hawthorne	20	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
		Landslides	0.15	Landslides	0.15		
TmC:							
Tarklin	65	Moderate		Moderately suited		Severe	
		Low strength	0.50	Wetness	0.50	Low strength	1.00
				Low strength	0.50		
				Slope	0.50		
Minvale	35	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
TmE:							
Tarklin	60	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Landslides	0.16	Wetness	0.50		
				Low strength	0.50		
				Landslides	0.16		
Minvale	40	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Landslides	0.11	Low strength	0.50		
				Landslides	0.11		
Ua:							
Udorthents, loamy	100	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
Ud:							
Udorthents, loamy	55	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
Urban land	45	Not rated		Not rated		Not rated	
Ur:							
Urban land	92	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 8b.--Forestland Management (Part 2)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
Ak:							
Arkabutla-----------	93	Slight		Slight		Moderately suited	
						Wetness	0.50
						Low strength	0.50
						Flooding	0.50
Ao:							
Arkabutla-----------	57	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	0.50
						Low strength	0.50
Rosebloom-----------	43	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
						Low strength	0.50
ArC2:							
Armour--------------	95	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Low strength	0.50
						Slope	0.50
AuE2:							
Arundel-------------	60	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Chickasaw-----------	35	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
BrB2:							
Brandon-------------	92	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
BrC2:							
Brandon-------------	90	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Low strength	0.50
						Slope	0.50
BrC3:							
Brandon-------------	100	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Low strength	0.50
						Slope	0.50
CaB2:							
Calloway------------	100	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Wetness	0.50
						Low strength	0.50
CkA:							
Calloway------------	56	Slight		Slight		Moderately suited	
						Wetness	0.50
						Low strength	0.50

Table 8b.--Forestland Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
CkA:							
Kurk	38	Slight		Slight		Poorly suited	
						Wetness	1.00
						Low strength	0.50
Cl:							
Cascilla	95	Slight		Slight		Moderately suited	
						Low strength	0.50
Cn:							
Chenneby	93	Slight		Slight		Moderately suited	
						Low strength	0.50
						Flooding	0.50
						Wetness	0.50
CVA:							
Chenneby	45	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Wetness	0.50
Enville	30	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Wetness	0.50
Arkabutla	20	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	0.50
						Low strength	0.50
DaC3:							
Deanburg	95	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
DeB3:							
Deanburg	95	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
DeC2:							
Deanburg	95	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
DnB2:							
Deanburg	95	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
DtB2:							
Dulac	69	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Wetness	0.50
						Low strength	0.50
Tippah	27	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Wetness	0.50

Table 8b.--Forestland Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
DtB3:							
Dulac	69	Slight		Moderate		Poorly suited	
				Slope/erodibility	0.50	Wetness	1.00
						Low strength	0.50
Tippah	27	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Wetness	0.50
DtC2:							
Dulac	70	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Wetness	0.50
						Low strength	0.50
						Slope	0.50
Tippah	30	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Wetness	0.50
						Slope	0.50
DtC3:							
Dulac	70	Slight		Moderate		Poorly suited	
				Slope/erodibility	0.50	Wetness	1.00
						Low strength	0.50
						Slope	0.50
Tippah	30	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Wetness	0.50
						Slope	0.50
DtD2:							
Dulac	53	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Wetness	0.50
						Slope	0.50
						Low strength	0.50
Tippah	44	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
						Wetness	0.50
DtD3:							
Dulac	53	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Wetness	1.00
						Slope	0.50
						Low strength	0.50
Tippah	44	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
						Wetness	0.50
Ea:							
Enville	97	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Wetness	0.50

Table 8b.--Forestland Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
Eb:							
Enville	85	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Wetness	0.50
Bibb	15	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
						Low strength	0.50
FaB2:							
Falkner	100	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Wetness	0.50
FeA:							
Feliciana	89	Slight		Slight		Moderately suited	
						Low strength	0.50
FeB2:							
Feliciana	92	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
GrA:							
Grenada	95	Slight		Slight		Moderately suited	
						Low strength	0.50
						Wetness	0.50
GrB2:							
Grenada	100	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Wetness	0.50
HgF:							
Hapludults	60	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Gullied land	40	Not rated		Not rated		Not rated	
HtE:							
Hawthorne	100	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.14
HTF:							
Hawthorne	45	Very severe		Severe		Poorly suited	
		Slope/erodibility	0.95	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.60
Sengtown	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.60
						Low strength	0.50
Sugargrove	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.60
						Low strength	0.50

Table 8b.--Forestland Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
HuB:							
Humphreys	95	Slight		Slight		Moderately suited	
						Low strength	0.50
HuC:							
Humphreys	95	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
Ik:							
Iuka	89	Slight		Slight		Moderately suited	
						Low strength	0.50
						Flooding	0.50
KrA:							
Kurk	94	Slight		Slight		Poorly suited	
						Wetness	1.00
						Low strength	0.50
LaB2:							
Lax	100	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Wetness	0.50
						Low strength	0.50
LaC2:							
Lax	97	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Wetness	0.50
						Low strength	0.50
						Slope	0.50
LbC3:							
Lax	97	Slight		Severe		Poorly suited	
				Slope/erodibility	0.95	Wetness	1.00
						Low strength	0.50
						Slope	0.50
LeA:							
Lexington	92	Slight		Slight		Moderately suited	
						Low strength	0.50
LeB2:							
Lexington	94	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
LeC2:							
Lexington	95	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
LeD2:							
Lexington	97	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
LnB3:							
Lexington	95	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50

Table 8b.--Forestland Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
LnC3:							
Lexington-----------	95	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
LnD3:							
Lexington-----------	97	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
Lo:							
Lobelville----------	93	Slight		Slight		Moderately suited	
						Wetness	0.50
						Low strength	0.50
						Flooding	0.50
LrA:							
Loring--------------	90	Slight		Slight		Moderately suited	
						Low strength	0.50
						Wetness	0.50
LrB2:							
Loring--------------	95	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Wetness	0.50
LrC2:							
Loring--------------	100	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
						Wetness	0.50
LuE2:							
Luverne-------------	100	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.13
Ng:							
Nugent--------------	100	Slight		Slight		Moderately suited	
						Flooding	0.50
Ok:							
Ochlockonee---------	100	Slight		Slight		Moderately suited	
						Low strength	0.50
PaB2:							
Paden---------------	100	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Wetness	0.50
PaC2:							
Paden---------------	100	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Low strength	0.50
						Wetness	0.50
						Slope	0.50
PaC3:							
Paden---------------	100	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Low strength	0.50
						Wetness	0.50
						Slope	0.50

Table 8b.--Forestland Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
Pc:							
Pits, clay----------	100	Not rated		Not rated		Not rated	
Pg:							
Pits, gravel or sand	100	Not rated		Not rated		Not rated	
PoA:							
Providence----------	97	Slight		Slight		Moderately suited	
						Wetness	0.50
						Low strength	0.50
PoB2:							
Providence----------	100	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Wetness	0.50
PoC2:							
Providence----------	100	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Wetness	0.50
						Slope	0.50
PoD2:							
Providence----------	100	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
						Wetness	0.50
PrB3:							
Providence----------	100	Slight		Moderate		Poorly suited	
				Slope/erodibility	0.50	Wetness	1.00
						Low strength	0.50
PrC3:							
Providence----------	100	Slight		Moderate		Poorly suited	
				Slope/erodibility	0.50	Wetness	1.00
						Low strength	0.50
						Slope	0.50
PrD3:							
Providence----------	100	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Wetness	1.00
						Slope	0.50
						Low strength	0.50
Pu:							
Pruitton------------	95	Slight		Slight		Moderately suited	
						Low strength	0.50
						Flooding	0.50
Re:							
Riverby-------------	55	Slight		Slight		Moderately suited	
						Flooding	0.50
Ennis---------------	45	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50

Table 8b.--Forestland Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
RO:							
Rosebloom	85	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
						Low strength	0.50
Bibb	15	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
						Low strength	0.50
RtA:							
Routon	100	Slight		Slight		Poorly suited	
						Wetness	1.00
						Low strength	0.50
RuA:							
Routon	100	Slight		Slight		Poorly suited	
						Ponding	1.00
						Wetness	1.00
						Low strength	0.50
SaC2:							
Saffell	59	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Low strength	0.50
						Slope	0.50
Brandon	33	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Low strength	0.50
						Slope	0.50
SaE2:							
Saffell	67	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Landslides	0.10
Brandon	33	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Landslides	0.10
SAF:							
Saffell	51	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Landslides	0.20
Smithdale	25	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Landslides	0.20
Brandon	24	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Landslides	0.20

Table 8b.--Forestland Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
SeD2:							
Smithdale-----------	100	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
SeD3:							
Smithdale-----------	100	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
SeE2:							
Smithdale-----------	100	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Landslides	0.14
SgD2:							
Smithdale-----------	67	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
Lexington-----------	33	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
SgD3:							
Smithdale-----------	67	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
Lexington-----------	33	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
SgE2:							
Smithdale-----------	67	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Lexington-----------	33	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
SgE3:							
Smithdale-----------	67	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Lexington-----------	33	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
SnD2:							
Smithdale-----------	75	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
Luverne	25	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50

Table 8b.--Forestland Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
SnD3:							
Smithdale	75	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
Luverne	25	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
						Stickiness; high plasticity index	0.50
SnE2:							
Smithdale	75	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Landslides	0.14
Luverne	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.13
SRF:							
Smithdale	65	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Landslides	0.20
Remlik	20	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.60
Luverne	15	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.60
SuC:							
Sugargrove	45	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
Sengtown	35	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
Hawthorne	20	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
SuE:							
Sugargrove	45	Slight		Moderate		Poorly suited	
				Slope/erodibility	0.50	Slope	1.00
						Low strength	0.50
						Landslides	0.09
Sengtown	35	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Landslides	0.16
Hawthorne	20	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.15

Table 8b.--Forestland Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
TmC:							
Tarklin	65	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Wetness	0.50
						Low strength	0.50
						Slope	0.50
Minvale	35	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Low strength	0.50
						Slope	0.50
TmE:							
Tarklin	60	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Wetness	0.50
						Low strength	0.50
						Landslides	0.16
Minvale	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Landslides	0.11
Ua:							
Udorthents, loamy	100	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
Ud:							
Udorthents, loamy	55	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
Urban land	45	Not rated		Not rated		Not rated	
Ur:							
Urban land	92	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 8c.--Forestland Management (Part 3)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
Ak:							
Arkabutla-----------	93	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Ao:							
Arkabutla-----------	57	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Rosebloom-----------	43	Well suited		Well suited		Moderately suited	
						Low strength	0.50
ArC2:							
Armour--------------	95	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
AuE2:							
Arundel-------------	60	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.75		
Chickasaw-----------	35	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.50		
BrB2:							
Brandon-------------	92	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
BrC2:							
Brandon-------------	90	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
BrC3:							
Brandon-------------	100	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
CaB2:							
Calloway------------	100	Well suited		Well suited		Moderately suited	
						Low strength	0.50
CkA:							
Calloway------------	56	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Kurk----------------	38	Well suited		Well suited		Moderately suited	
						Low strength	0.50

Table 8c.--Forestland Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
Cl:							
Cascilla	95	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Cn:							
Chenneby	93	Well suited		Well suited		Moderately suited	
						Low strength	0.50
CVA:							
Chenneby	45	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Enville	30	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Arkabutla	20	Well suited		Well suited		Moderately suited	
						Low strength	0.50
DaC3:							
Deanburg	95	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
DeB3:							
Deanburg	95	Well suited		Well suited		Moderately suited	
						Low strength	0.50
DeC2:							
Deanburg	95	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
DnB2:							
Deanburg	95	Well suited		Well suited		Moderately suited	
						Low strength	0.50
DtB2:							
Dulac	69	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
Tippah	27	Well suited		Well suited		Moderately suited	
						Low strength	0.50
DtB3:							
Dulac	69	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
Tippah	27	Well suited		Well suited		Moderately suited	
						Low strength	0.50
DtC2:							
Dulac	70	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
Tippah	30	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50

Table 8c.--Forestland Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
DtC3:							
Dulac	70	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
Tippah	30	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
DtD2:							
Dulac	53	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
Tippah	44	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
DtD3:							
Dulac	53	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
Tippah	44	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
Ea:							
Enville	97	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Eb:							
Enville	85	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Bibb	15	Well suited		Well suited		Moderately suited	
						Low strength	0.50
FaB2:							
Falkner	100	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
FeA:							
Feliciana	89	Well suited		Well suited		Moderately suited	
						Low strength	0.50
FeB2:							
Feliciana	92	Well suited		Well suited		Moderately suited	
						Low strength	0.50
GrA:							
Grenada	95	Well suited		Well suited		Moderately suited	
						Low strength	0.50
GrB2:							
Grenada	100	Well suited		Well suited		Moderately suited	
						Low strength	0.50

Table 8c.--Forestland Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
HgF:							
Hapludults	60	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
						Low strength	0.50
Gullied land	40	Not rated		Not rated		Not rated	
HtE:							
Hawthorne	100	Well suited		Poorly suited		Well suited	
				Slope	0.75		
				Rock fragments	0.50		
HTF:							
Hawthorne	45	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
				Rock fragments	0.50		
Sengtown	30	Poorly suited		Unsuited		Moderately suited	
		Stickiness; high plasticity index	0.75	Slope	1.00	Slope	0.50
		Slope	0.50	Stickiness; high plasticity index	0.75	Low strength	0.50
				Rock fragments	0.50		
Sugargrove	25	Well suited		Unsuited		Moderately suited	
				Slope	1.00	Slope	0.50
				Rock fragments	0.50	Low strength	0.50
HuB:							
Humphreys	95	Well suited		Moderately suited		Moderately suited	
				Rock fragments	0.50	Low strength	0.50
HuC:							
Humphreys	95	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
				Rock fragments	0.50		
Ik:							
Iuka	89	Well suited		Well suited		Moderately suited	
						Low strength	0.50
KrA:							
Kurk	94	Well suited		Well suited		Moderately suited	
						Low strength	0.50
LaB2:							
Lax	100	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
LaC2:							
Lax	97	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
LbC3:							
Lax	97	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		

Table 8c.--Forestland Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
LeA:							
Lexington	92	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
LeB2:							
Lexington	94	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
LeC2:							
Lexington	95	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
LeD2:							
Lexington	97	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
LnB3:							
Lexington	95	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
LnC3:							
Lexington	95	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
LnD3:							
Lexington	97	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
Lo:							
Lobelville	93	Well suited		Well suited		Moderately suited	
						Low strength	0.50
LrA:							
Loring	90	Well suited		Well suited		Moderately suited	
						Low strength	0.50
LrB2:							
Loring	95	Well suited		Well suited		Moderately suited	
						Low strength	0.50
LrC2:							
Loring	100	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
LuE2:							
Luverne	100	Poorly suited		Poorly suited		Well suited	
		Stickiness; high plasticity index	0.75	Slope	0.75		
				Stickiness; high plasticity index	0.75		

Table 8c.--Forestland Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
Ng:							
Nugent	100	Well suited		Well suited		Well suited	
Ok:							
Ochlockonee	100	Well suited		Well suited		Moderately suited	
						Low strength	0.50
PaB2:							
Paden	100	Well suited		Well suited		Moderately suited	
						Low strength	0.50
PaC2:							
Paden	100	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
PaC3:							
Paden	100	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
Pc:							
Pits, clay	100	Not rated		Not rated		Not rated	
Pg:							
Pits, gravel or sand	100	Not rated		Not rated		Not rated	
PoA:							
Providence	97	Well suited		Well suited		Moderately suited	
						Low strength	0.50
PoB2:							
Providence	100	Well suited		Well suited		Moderately suited	
						Low strength	0.50
PoC2:							
Providence	100	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
PoD2:							
Providence	100	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
PrB3:							
Providence	100	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
PrC3:							
Providence	100	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
PrD3:							
Providence	100	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
Pu:							
Pruitton	95	Well suited		Well suited		Moderately suited	
						Low strength	0.50

Table 8c.--Forestland Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
Re:							
Riverby	55	Moderately suited		Poorly suited		Well suited	
		Sandiness	0.50	Rock fragments	0.75		
		Rock fragments	0.50	Sandiness	0.50		
Ennis	45	Well suited		Well suited		Moderately suited	
						Low strength	0.50
RO:							
Rosebloom	85	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Bibb	15	Well suited		Well suited		Moderately suited	
						Low strength	0.50
RtA:							
Routon	100	Well suited		Well suited		Moderately suited	
						Low strength	0.50
RuA:							
Routon	100	Well suited		Well suited		Moderately suited	
						Low strength	0.50
SaC2:							
Saffell	59	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
				Rock fragments	0.50		
Brandon	33	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
SaE2:							
Saffell	67	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
				Rock fragments	0.50		
Brandon	33	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
SAF:							
Saffell	51	Well suited		Unsuited		Moderately suited	
				Slope	1.00	Slope	0.50
				Rock fragments	0.50	Low strength	0.50
Smithdale	25	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
						Low strength	0.50
Brandon	24	Moderately suited		Unsuited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	1.00	Slope	0.50
				Stickiness; high plasticity index	0.50	Low strength	0.50
SeD2:							
Smithdale	100	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50

Table 8c.--Forestland Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
SeD3:							
Smithdale	100	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
SeE2:							
Smithdale	100	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
SgD2:							
Smithdale	67	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
Lexington	33	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
SgD3:							
Smithdale	67	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
Lexington	33	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
SgE2:							
Smithdale	67	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
Lexington	33	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
SgE3:							
Smithdale	67	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
Lexington	33	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
SnD2:							
Smithdale	75	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
Luverne	25	Poorly suited		Poorly suited		Well suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75		
				Slope	0.50		
SnD3:							
Smithdale	75	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
Luverne	25	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
				Slope	0.50	Stickiness; high plasticity index	0.50

Table 8c.--Forestland Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
SnE2:							
Smithdale	75	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
Luverne	25	Poorly suited		Poorly suited		Well suited	
		Stickiness; high plasticity index	0.75	Slope	0.75		
				Stickiness; high plasticity index	0.75		
SRF:							
Smithdale	65	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
						Low strength	0.50
Remlik	20	Moderately suited		Unsuited		Moderately suited	
		Slope	0.50	Slope	1.00	Slope	0.50
Luverne	15	Poorly suited		Unsuited		Moderately suited	
		Stickiness; high plasticity index	0.75	Slope	1.00	Slope	0.50
		Slope	0.50	Stickiness; high plasticity index	0.75		
SuC:							
Sugargrove	45	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
				Rock fragments	0.50		
Sengtown	35	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
				Slope	0.50		
				Rock fragments	0.50		
Hawthorne	20	Well suited		Moderately suited		Well suited	
				Slope	0.50		
				Rock fragments	0.50		
SuE:							
Sugargrove	45	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
				Rock fragments	0.50		
Sengtown	35	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.75	Slope	0.50
				Rock fragments	0.50		
Hawthorne	20	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
				Rock fragments	0.50		
TmC:							
Tarklin	65	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
				Stickiness; high plasticity index	0.50		
				Rock fragments	0.50		
Minvale	35	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50

Table 8c.--Forestland Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
TmE:							
Tarklin	60	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
				Stickiness; high plasticity index	0.50	Slope	0.50
				Rock fragments	0.50		
Minvale	40	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Low strength	0.50
Ua:							
Udorthents, loamy	100	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Ud:							
Udorthents, loamy	55	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Urban land	45	Not rated		Not rated		Not rated	
Ur:							
Urban land	92	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 8d.--Forestland Management (Part 4)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Ak:					
Arkabutla-----------	93	Well suited		Well suited	
Ao:					
Arkabutla-----------	57	Well suited		Well suited	
Rosebloom	43	Well suited		Well suited	
ArC2:					
Armour--------------	95	Well suited		Well suited	
AuE2:					
Arundel-------------	60	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
Chickasaw-----------	35	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
BrB2:					
Brandon-------------	92	Well suited		Well suited	
BrC2:					
Brandon-------------	90	Well suited		Well suited	
BrC3:					
Brandon-------------	100	Well suited		Well suited	
CaB2:					
Calloway------------	100	Well suited		Well suited	
CkA:					
Calloway------------	56	Well suited		Well suited	
Kurk----------------	38	Well suited		Well suited	
Cl:					
Cascilla------------	95	Well suited		Well suited	
Cn:					
Chenneby------------	93	Well suited		Well suited	
CVA:					
Chenneby------------	45	Well suited		Well suited	
Enville-------------	30	Well suited		Well suited	
Arkabutla-----------	20	Well suited		Well suited	

Table 8d.--Forestland Management (Part 4)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
DaC3:					
Deanburg	95	Well suited		Well suited	
DeB3:					
Deanburg	95	Well suited		Well suited	
DeC2:					
Deanburg	95	Well suited		Well suited	
DnB2:					
Deanburg	95	Well suited		Well suited	
DtB2:					
Dulac	69	Well suited		Well suited	
Tippah	27	Well suited		Well suited	
DtB3:					
Dulac	69	Well suited		Well suited	
Tippah	27	Well suited		Well suited	
DtC2:					
Dulac	70	Well suited		Well suited	
Tippah	30	Well suited		Well suited	
DtC3:					
Dulac	70	Well suited		Well suited	
Tippah	30	Well suited		Well suited	
DtD2:					
Dulac	53	Well suited		Well suited	
Tippah	44	Well suited		Well suited	
DtD3:					
Dulac	53	Well suited		Well suited	
Tippah	44	Well suited		Well suited	
Ea:					
Enville	97	Well suited		Well suited	
Eb:					
Enville	85	Well suited		Well suited	
Bibb	15	Well suited		Well suited	
FaB2:					
Falkner	100	Well suited		Well suited	
FeA:					
Feliciana	89	Well suited		Well suited	
FeB2:					
Feliciana	92	Well suited		Well suited	

Table 8d.--Forestland Management (Part 4)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
GrA:					
Grenada	95	Well suited		Well suited	
GrB2:					
Grenada	100	Well suited		Well suited	
HgF:					
Hapludults	60	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Gullied land	40	Not rated		Not rated	
HtE:					
Hawthorne	100	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
HTF:					
Hawthorne	45	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
Sengtown	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
Sugargrove	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
HuB:					
Humphreys	95	Well suited		Well suited	
HuC:					
Humphreys	95	Well suited		Well suited	
Ik:					
Iuka	89	Well suited		Well suited	
KrA:					
Kurk	94	Well suited		Well suited	
LaB2:					
Lax	100	Well suited		Well suited	
LaC2:					
Lax	97	Well suited		Well suited	
LbC3:					
Lax	97	Well suited		Well suited	
LeA:					
Lexington	92	Well suited		Well suited	
LeB2:					
Lexington	94	Well suited		Well suited	
LeC2:					
Lexington	95	Well suited		Well suited	
LeD2:					
Lexington	97	Well suited		Well suited	

Table 8d.--Forestland Management (Part 4)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
LnB3:					
Lexington	95	Well suited		Well suited	
LnC3:					
Lexington	95	Well suited		Well suited	
LnD3:					
Lexington	97	Well suited		Well suited	
Lo:					
Lobelville	93	Well suited		Well suited	
LrA:					
Loring	90	Well suited		Well suited	
LrB2:					
Loring	95	Well suited		Well suited	
LrC2:					
Loring	100	Well suited		Well suited	
LuE2:					
Luverne	100	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
Ng:					
Nugent	100	Well suited		Well suited	
Ok:					
Ochlockonee	100	Well suited		Well suited	
PaB2:					
Paden	100	Well suited		Well suited	
PaC2:					
Paden	100	Well suited		Well suited	
PaC3:					
Paden	100	Well suited		Well suited	
Pc:					
Pits, clay	100	Not rated		Not rated	
Pg:					
Pits, gravel or sand	100	Not rated		Not rated	
PoA:					
Providence	97	Well suited		Well suited	
PoB2:					
Providence	100	Well suited		Well suited	
PoC2:					
Providence	100	Well suited		Well suited	
PoD2:					
Providence	100	Well suited		Well suited	

Table 8d.--Forestland Management (Part 4)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
PrB3:					
Providence----------	100	Well suited		Well suited	
PrC3:					
Providence----------	100	Well suited		Well suited	
PrD3:					
Providence----------	100	Well suited		Well suited	
Pu:					
Pruitton------------	95	Well suited		Well suited	
Re:					
Riverby-------------	55	Poorly suited		Well suited	
		Rock fragments	0.50		
Ennis---------------	45	Well suited		Well suited	
RO:					
Rosebloom-----------	85	Well suited		Well suited	
Bibb	15	Well suited		Well suited	
RtA:					
Routon--------------	100	Well suited		Well suited	
RuA:					
Routon--------------	100	Well suited		Well suited	
SaC2:					
Saffell-------------	59	Well suited		Well suited	
Brandon-------------	33	Well suited		Well suited	
SaE2:					
Saffell-------------	67	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Brandon-------------	33	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
SAF:					
Saffell-------------	51	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Smithdale-----------	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Brandon-------------	24	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
SeD2:					
Smithdale-----------	100	Well suited		Well suited	
SeD3:					
Smithdale-----------	100	Well suited		Well suited	
SeE2:					
Smithdale-----------	100	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50

Table 8d.--Forestland Management (Part 4)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
SgD2:					
Smithdale	67	Well suited		Well suited	
Lexington	33	Well suited		Well suited	
SgD3:					
Smithdale	67	Well suited		Well suited	
Lexington	33	Well suited		Well suited	
SgE2:					
Smithdale	67	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Lexington	33	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
SgE3:					
Smithdale	67	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Lexington	33	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
SnD2:					
Smithdale	75	Well suited		Well suited	
Luverne	25	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
SnD3:					
Smithdale	75	Well suited		Well suited	
Luverne	25	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
SnE2:					
Smithdale	75	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Luverne	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
SRF:					
Smithdale	65	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Remlik	20	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Luverne	15	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		

Table 8d.--Forestland Management (Part 4)--Continued

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
SuC:					
Sugargrove	45	Well suited		Well suited	
Sengtown	35	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
Hawthorne	20	Well suited		Well suited	
SuE:					
Sugargrove	45	Well suited		Well suited	
Sengtown	35	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
Hawthorne	20	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
TmC:					
Tarklin	65	Well suited		Well suited	
Minvale	35	Well suited		Well suited	
TmE:					
Tarklin	60	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Minvale	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Ua:					
Udorthents, loamy	100	Well suited		Well suited	
Ud:					
Udorthents, loamy	55	Well suited		Well suited	
Urban land	45	Not rated		Not rated	
Ur:					
Urban land	92	Not rated		Not rated	
W:					
Water	100	Not rated		Not rated	

Table 8e.--Forestland Management (Part 5)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
Ak:					
Arkabutla	93	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Ao:					
Arkabutla	57	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Rosebloom	43	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00
ArC2:					
Armour	95	Low		Low	
		Texture/rock fragments	0.10		
AuE2:					
Arundel	60	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50
Chickasaw	35	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50
BrB2:					
Brandon	92	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
BrC2:					
Brandon	90	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
BrC3:					
Brandon	100	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
CaB2:					
Calloway	100	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
CkA:					
Calloway	56	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Kurk	38	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Cl:					
Cascilla	95	Low		Low	
		Texture/rock fragments	0.10		
Cn:					
Chenneby	93	Moderate		Low	
		Texture/rock fragments	0.50		
CVA:					
Chenneby	45	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Enville	30	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Arkabutla	20	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
DaC3:					
Deanburg	95	Low		Low	
DeB3:					
Deanburg	95	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
DeC2:					
Deanburg	95	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
DnB2:					
Deanburg	95	Moderate		Low	
		Texture/rock fragments	0.50		

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Potential for damage to soil by fire: Value	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value
DtB2:					
Dulac	69	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Tippah	27	Moderate		Low	
		Texture/rock fragments	0.50		
DtB3:					
Dulac	69	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
Tippah	27	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
DtC2:					
Dulac	70	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Tippah	30	Moderate		Low	
		Texture/rock fragments	0.50		
DtC3:					
Dulac	70	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
Tippah	30	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
DtD2:					
Dulac	53	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Tippah	44	Moderate		Low	
		Texture/rock fragments	0.50		
DtD3:					
Dulac	53	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
DtD3:					
Tippah	44	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
Ea:					
Enville	97	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Eb:					
Enville	85	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
Bibb	15	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00
FaB2:					
Falkner	100	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
FeA:					
Feliciana	89	Low		Low	
		Texture/rock fragments	0.10		
FeB2:					
Feliciana	92	Low		Low	
		Texture/rock fragments	0.10		
GrA:					
Grenada	95	Moderate		Low	
		Texture/rock fragments	0.50		
GrB2:					
Grenada	100	Moderate		Low	
		Texture/rock fragments	0.50		
HgF:					
Hapludults	60	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50
Gullied land	40	Not rated		Not rated	
HtE:					
Hawthorne	100	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
HTF:					
Hawthorne	45	High		Moderate	
		Texture/slope/ surface layer thickness/rock fragments	1.00	Available water	0.50
Sengtown	30	High		Moderate	
		Texture/slope/ surface layer thickness/rock fragments	1.00	Available water	0.50
Sugargrove	25	Moderate		Moderate	
		Texture/slope/ surface layer thickness/rock fragments	0.50	Available water	0.50
HuB:					
Humphreys	95	Low		Low	
		Texture/rock fragments	0.10		
HuC:					
Humphreys	95	Low		Low	
		Texture/rock fragments	0.10		
Ik:					
Iuka	89	Moderate		Low	
		Texture/rock fragments	0.50		
KrA:					
Kurk	94	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
LaB2:					
Lax	100	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
LaC2:					
Lax	97	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
LbC3:					
Lax	97	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
LeA:					
Lexington	92	Moderate		Low	
		Texture/rock fragments	0.50		
LeB2:					
Lexington	94	Moderate		Low	
		Texture/rock fragments	0.50		
LeC2:					
Lexington	95	Moderate		Low	
		Texture/rock fragments	0.50		
LeD2:					
Lexington	97	Moderate		Low	
		Texture/rock fragments	0.50		
LnB3:					
Lexington	95	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
LnC3:					
Lexington	95	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
LnD3:					
Lexington	97	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
Lo:					
Lobelville	93	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00
LrA:					
Loring	90	Moderate		Low	
		Texture/rock fragments	0.50		
LrB2:					
Loring	95	Moderate		Low	
		Texture/rock fragments	0.50		
LrC2:					
Loring	100	Moderate		Low	
		Texture/rock fragments	0.50		

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
LuE2:					
Luverne	100	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
Ng:					
Nugent	100	High		High	
		Texture/rock fragments	1.00	Available water	1.00
Ok:					
Ochlockonee	100	Moderate		Low	
		Texture/rock fragments	0.50		
PaB2:					
Paden	100	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
PaC2:					
Paden	100	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
PaC3:					
Paden	100	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
Pc:					
Pits, clay	100	Not rated		Not rated	
Pg:					
Pits, gravel or sand	100	Not rated		Not rated	
PoA:					
Providence	97	Moderate		Low	
		Texture/rock fragments	0.50		
PoB2:					
Providence	100	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
PoC2:					
Providence	100	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
PoD2:					
Providence	100	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
PrB3:					
Providence----------	100	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
PrC3:					
Providence----------	100	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
PrD3:					
Providence----------	100	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
Pu:					
Pruitton------------	95	Low		Low	
		Texture/rock fragments	0.10		
Re:					
Riverby-------------	55	High		Moderate	
		Texture/rock fragments	1.00	Available water	0.50
Ennis---------------	45	Low		Low	
		Texture/rock fragments	0.10		
RO:					
Rosebloom-----------	85	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00
Bibb----------------	15	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00
RtA:					
Routon--------------	100	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
RuA:					
Routon--------------	100	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
SaC2:					
Saffell-------------	59	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
SaC2:					
Brandon-------------	33	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
SaE2:					
Saffell-------------	67	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
Brandon-------------	33	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
SAF:					
Saffell-------------	51	High		Moderate	
		Texture/slope/ surface layer thickness/rock fragments	1.00	Available water	0.50
Smithdale-----------	25	High		Moderate	
		Texture/slope/ surface layer thickness/rock fragments	1.00	Available water	0.50
Brandon-------------	24	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
SeD2:					
Smithdale-----------	100	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
SeD3:					
Smithdale-----------	100	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
SeE2:					
Smithdale-----------	100	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
SgD2:					
Smithdale	67	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
Lexington	33	Moderate		Low	
		Texture/rock fragments	0.50		
SgD3:					
Smithdale	67	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
Lexington	33	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
SgE2:					
Smithdale	67	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50
Lexington	33	Moderate		Low	
		Texture/rock fragments	0.50		
SgE3:					
Smithdale	67	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50
Lexington	33	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
SnD2:					
Smithdale	75	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
Luverne	25	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
SnD3:					
Smithdale	75	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
Luverne	25	Low		Low	
SnE2:					
Smithdale	75	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50
Luverne	25	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50
SRF:					
Smithdale	65	High		Moderate	
		Texture/slope/ surface layer thickness/rock fragments	1.00	Available water	0.50
Remlik	20	High		Moderate	
		Texture/slope/ surface layer thickness	1.00	Available water	0.50
Luverne	15	High		Low	
		Texture/slope/ surface layer thickness/rock fragments	1.00		
SuC:					
Sugargrove	45	Moderate		Low	
		Texture/surface layer thickness/rock fragments	0.50		
Sengtown	35	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		
Hawthorne	20	High		Low	
		Texture/surface layer thickness/rock fragments	1.00		

Table 8e.--Forestland Management (Part 5)--Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
SuE:					
Sugargrove	45	Moderate		Low	
		Texture/surface layer thickness/rock fragments	0.50		
Sengtown	35	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50
Hawthorne	20	High		Moderate	
		Texture/surface layer thickness/rock fragments	1.00	Available water	0.50
TmC:					
Tarklin	65	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
Minvale	35	Moderate		Low	
		Texture/rock fragments	0.50		
TmE:					
Tarklin	60	High		High	
		Texture/surface layer thickness/rock fragments	1.00	Wetness	1.00
Minvale	40	Moderate		Moderate	
		Texture/rock fragments	0.50	Available water	0.50
Ua:					
Udorthents, loamy	100	Low		Low	
Ud:					
Udorthents, loamy	55	Low		Low	
Urban land	45	Not rated		Not rated	
Ur:					
Urban land	92	Not rated		Not rated	
W:					
Water	100	Not rated		Not rated	

Table 9a.--Recreational Development (Part 1)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Ak:							
Arkabutla	93	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.83	Depth to saturated zone	1.00
		Flooding	1.00	Dusty	0.05	Flooding	0.60
		Dusty	0.05				
Ao:							
Arkabutla	57	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.83	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Dusty	0.05	Dusty	0.05		
Rosebloom	43	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Dusty	0.05	Dusty	0.05		
ArC2:							
Armour	95	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.05	Dusty	0.05	Slope	1.00
		Slope	0.04	Slope	0.04		
AuE2:							
Arundel	60	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.05	Dusty	0.05	Depth to bedrock	0.46
Chickasaw	35	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.05	Dusty	0.05		
BrB2:							
Brandon	92	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.05	Dusty	0.05	Slope	0.50
BrC2:							
Brandon	90	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.05	Dusty	0.05	Slope	1.00
		Slope	0.04	Slope	0.04		
BrC3:							
Brandon	100	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.05	Dusty	0.05	Slope	1.00
		Slope	0.04	Slope	0.04		
CaB2:							
Calloway	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	0.50

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
CkA:							
Calloway	56	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05		
Kurk	38	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.22	Slow water movement	0.22	Slow water movement	0.22
		Dusty	0.05	Dusty	0.05		
Cl:							
Cascilla	95	Very limited		Somewhat limited		Not limited	
		Flooding	1.00	Dusty	0.05		
		Dusty	0.05				
Cn:							
Chenneby	93	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.68	Depth to saturated zone	0.95
		Depth to saturated zone	0.95	Dusty	0.05	Flooding	0.60
		Dusty	0.05				
CVA:							
Chenneby	45	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Depth to saturated zone	0.68	Flooding	1.00
		Depth to saturated zone	0.95	Flooding	0.40	Depth to saturated zone	0.95
		Dusty	0.05	Dusty	0.05		
Enville	30	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.94	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Dusty	0.03	Dusty	0.03		
Arkabutla	20	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.83	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Dusty	0.05	Dusty	0.05		
DaC3:							
Deanburg	95	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.02	Dusty	0.02	Slope	1.00
DeB3:							
Deanburg	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.02	Dusty	0.02	Slope	0.50
DeC2:							
Deanburg	95	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.02	Dusty	0.02	Slope	1.00
DnB2:							
Deanburg	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.02	Dusty	0.02	Slope	0.50

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
DtB2:							
Dulac	69	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.94	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	0.50
Tippah	27	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
		Dusty	0.05	Dusty	0.05	Slope	0.50
DtB3:							
Dulac	69	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	0.50
Tippah	27	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Slow water movement	0.96	Depth to saturated zone	1.00
		Slow water movement	0.96	Depth to saturated zone	0.94	Slow water movement	0.96
		Dusty	0.05	Dusty	0.05	Slope	0.50
DtC2:							
Dulac	70	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.94	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	1.00
Tippah	30	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.96	Slow water movement	0.96	Slope	1.00
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Slow water movement	0.96
		Dusty	0.05	Dusty	0.05	Depth to saturated zone	0.88
DtC3:							
Dulac	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	1.00
Tippah	30	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Slow water movement	0.96	Depth to saturated zone	1.00
		Slow water movement	0.96	Depth to saturated zone	0.94	Slope	1.00
		Dusty	0.05	Dusty	0.05	Slow water movement	0.96
DtD2:							
Dulac	53	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.94	Depth to saturated zone	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.05	Dusty	0.05		

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
DtD2:							
Tippah	44	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.96	Slow water movement	0.96	Slope	1.00
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Slow water movement	0.96
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.88
		Dusty	0.05	Dusty	0.05		
DtD3:							
Dulac	53	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.05	Dusty	0.05		
Tippah	44	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Slow water movement	0.96	Depth to saturated zone	1.00
		Slow water movement	0.96	Depth to saturated zone	0.94	Slope	1.00
		Slope	0.16	Slope	0.16	Slow water movement	0.96
		Dusty	0.05	Dusty	0.05		
Ea:							
Enville	97	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
		Flooding	1.00	Dusty	0.03	Flooding	0.60
		Dusty	0.03				
Eb:							
Enville	85	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.94	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Dusty	0.03	Dusty	0.03		
Bibb	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Dusty	0.02	Dusty	0.02		
FaB2:							
Falkner	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.05	Dusty	0.05	Slope	0.50
FeA:							
Feliciana	89	Somewhat limited		Somewhat limited		Not limited	
		Dusty	0.05	Dusty	0.05		
FeB2:							
Feliciana	92	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.05	Dusty	0.05	Slope	0.50

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
GrA:							
Grenada	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Dusty	0.05	Dusty	0.05		
GrB2:							
Grenada	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Dusty	0.05	Dusty	0.05	Slope	0.50
HgF:							
Hapludults	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.03	Dusty	0.03		
Gullied land	40	Not rated		Not rated		Not rated	
HtE:							
Hawthorne	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel	0.45	Gravel content	0.45	Gravel	1.00
		Dusty	0.05	Dusty	0.05	Depth to bedrock	0.07
HTF:							
Hawthorne	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel	0.45	Gravel content	0.45	Gravel	1.00
		Dusty	0.05	Dusty	0.05	Depth to bedrock	0.07
Sengtown	30	Very limited		Not rated		Very limited	
		Slope	1.00			Slope	1.00
		Dusty	0.05				
Sugargrove	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel	0.18	Gravel content	0.18	Gravel	1.00
		Dusty	0.05	Dusty	0.05	Depth to bedrock	0.65
HuB:							
Humphreys	95	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.05	Dusty	0.05	Gravel	1.00
		Gravel	0.01	Gravel content	0.01	Slope	0.50
HuC:							
Humphreys	95	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.05	Dusty	0.05	Slope	1.00
		Slope	0.04	Slope	0.04	Gravel	1.00
		Gravel	0.01	Gravel content	0.01		
Ik:							
Iuka	89	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Dusty	0.02	Flooding	0.60
		Dusty	0.02				

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
KrA:							
Kurk	94	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.22	Slow water movement	0.22	Slow water movement	0.22
		Dusty	0.05	Dusty	0.05		
LaB2:							
Lax	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slow water movement	1.00	Depth to saturated zone	0.88	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	0.50
LaC2:							
Lax	97	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slow water movement	1.00	Depth to saturated zone	0.88	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	1.00
		Slope	0.04	Slope	0.04		
LbC3:							
Lax	97	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slow water movement	1.00
		Slow water movement	1.00	Slow water movement	1.00	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	1.00
		Slope	0.04	Slope	0.04		
LeA:							
Lexington	92	Somewhat limited		Somewhat limited		Not limited	
		Dusty	0.05	Dusty	0.05		
LeB2:							
Lexington	94	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.05	Dusty	0.05	Slope	0.50
LeC2:							
Lexington	95	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.05	Dusty	0.05	Slope	1.00
LeD2:							
Lexington	97	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.05	Dusty	0.05		
LnB3:							
Lexington	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.05	Dusty	0.05	Slope	0.50
LnC3:							
Lexington	95	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.05	Dusty	0.05	Slope	1.00

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
LnD3:							
Lexington	97	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.05	Dusty	0.05		
Lo:							
Lobelville	93	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Depth to saturated zone	1.00
		Flooding	1.00	Dusty	0.05	Flooding	0.60
		Dusty	0.05				
LrA:							
Loring	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Depth to saturated zone	0.56	Depth to saturated zone	0.28	Depth to saturated zone	0.56
		Dusty	0.05	Dusty	0.05		
LrB2:							
Loring	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	0.28	Depth to saturated zone	0.56
		Dusty	0.05	Dusty	0.05	Slope	0.50
LrC2:							
Loring	100	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.56	Depth to saturated zone	0.28	Slope	1.00
		Dusty	0.05	Dusty	0.05	Depth to saturated zone	0.56
LuE2:							
Luverne	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.22	Slow water movement	0.22	Slow water movement	0.22
		Dusty	0.02	Dusty	0.02		
Ng:							
Nugent	100	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.36	Flooding	0.60
		Too sandy	0.36			Too sandy	0.36
Ok:							
Ochlockonee	100	Very limited		Somewhat limited		Not limited	
		Flooding	1.00	Dusty	0.01		
		Dusty	0.01				
PaB2:							
Paden	100	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	0.13
PaC2:							
Paden	100	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	1.00
		Slope	0.04	Slope	0.04		

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PaC3:							
Paden	100	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	1.00
		Slope	0.04	Slope	0.04		
Pc:							
Pits, clay	100	Not rated		Not rated		Not rated	
Pg:							
Pits, gravel or sand	100	Not rated		Not rated		Not rated	
PoA:							
Providence	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	0.56	Depth to saturated zone	0.88
		Dusty	0.05	Dusty	0.05		
PoB2:							
Providence	100	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	0.50
PoC2:							
Providence	100	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	1.00
PoD2:							
Providence	100	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Depth to saturated zone	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
		Dusty	0.05	Dusty	0.05		
PrB3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	0.50
PrC3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Dusty	0.05	Dusty	0.05	Slope	1.00
PrD3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.05	Dusty	0.05		
Pu:							
Pruitton	95	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Dusty	0.05	Flooding	0.60
		Dusty	0.05				

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Re:							
Riverby	55	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Gravel content	0.75	Gravel	1.00
		Gravel	0.75			Flooding	0.60
Ennis	45	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Dusty	0.05	Flooding	0.60
		Dusty	0.05			Gravel	0.56
RO:							
Rosebloom	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Dusty	0.05	Dusty	0.05		
Bibb	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Dusty	0.02	Dusty	0.02		
RtA:							
Routon	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
		Dusty	0.05	Dusty	0.05		
RuA:							
Routon	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
		Dusty	0.05	Dusty	0.05		
SaC2:							
Saffell	59	Somewhat limited		Somewhat limited		Very limited	
		Gravel	0.92	Gravel content	0.92	Slope	1.00
		Slope	0.16	Slope	0.16	Gravel	1.00
		Dusty	0.05	Dusty	0.05		
Brandon	33	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.05	Dusty	0.05		
SaE2:							
Saffell	67	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel	0.92	Gravel content	0.92	Gravel	1.00
		Dusty	0.05	Dusty	0.05		
Brandon	33	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.05	Dusty	0.05		

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
SAF:							
Saffell	51	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel	0.92	Gravel content	0.92	Gravel	1.00
		Dusty	0.05	Dusty	0.05		
Smithdale	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.03	Dusty	0.03		
Brandon	24	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.05	Dusty	0.05		
SeD2:							
Smithdale	100	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.03	Dusty	0.03		
SeD3:							
Smithdale	100	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.02	Dusty	0.02		
SeE2:							
Smithdale	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.03	Dusty	0.03		
SgD2:							
Smithdale	67	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
		Dusty	0.03	Dusty	0.03		
Lexington	33	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.05	Dusty	0.05		
SgD3:							
Smithdale	67	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
		Dusty	0.02	Dusty	0.02		
Lexington	33	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.05	Dusty	0.05		
SgE2:							
Smithdale	67	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.03	Dusty	0.03		
Lexington	33	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.05	Dusty	0.05		
SgE3:							
Smithdale	67	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.02	Dusty	0.02		

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
SgE3:							
Lexington	33	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.05	Dusty	0.05		
SnD2:							
Smithdale	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.03	Dusty	0.03		
Luverne	25	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.22	Slow water movement	0.22	Slope	1.00
		Slope	0.16	Slope	0.16	Slow water movement	0.22
		Dusty	0.02	Dusty	0.02		
SnD3:							
Smithdale	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
		Dusty	0.02	Dusty	0.02		
Luverne	25	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.22	Slow water movement	0.22	Slope	1.00
		Slope	0.16	Slope	0.16	Slow water movement	0.22
		Dusty	0.05	Dusty	0.05		
SnE2:							
Smithdale	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.03	Dusty	0.03		
Luverne	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.22	Slow water movement	0.22	Slow water movement	0.22
		Dusty	0.02	Dusty	0.02		
SRF:							
Smithdale	65	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.03	Dusty	0.03		
Remlik	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.36	Too sandy	0.36	Too sandy	0.36
Luverne	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.22	Slow water movement	0.22	Slow water movement	0.22
		Dusty	0.02	Dusty	0.02		
SuC:							
Sugargrove	45	Somewhat limited		Somewhat limited		Very limited	
		Gravel	0.18	Gravel content	0.18	Slope	1.00
		Dusty	0.05	Dusty	0.05	Gravel	1.00
		Slope	0.04	Slope	0.04	Depth to bedrock	0.65
Sengtown	35	Somewhat limited		Not rated		Very limited	
		Dusty	0.05			Slope	1.00
		Slope	0.04				

Table 9a.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
SuC:							
Hawthorne	20	Somewhat limited		Somewhat limited		Very limited	
		Gravel	0.45	Gravel content	0.45	Slope	1.00
		Dusty	0.05	Dusty	0.05	Gravel	1.00
		Slope	0.04	Slope	0.04	Depth to bedrock	0.07
SuE:							
Sugargrove	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
		Gravel	0.18	Gravel content	0.18	Gravel	1.00
		Dusty	0.05	Dusty	0.05	Depth to bedrock	0.65
Sengtown	35	Very limited		Not rated		Very limited	
		Slope	1.00			Slope	1.00
		Dusty	0.05				
Hawthorne	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel	0.45	Gravel content	0.45	Gravel	1.00
		Dusty	0.05	Dusty	0.05	Depth to bedrock	0.07
TmC:							
Tarklin	65	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Slow water movement	0.96	Depth to saturated zone	1.00
		Slow water movement	0.96	Depth to saturated zone	0.94	Slope	1.00
		Dusty	0.05	Dusty	0.05	Slow water movement	0.96
		Slope	0.04	Slope	0.04		
Minvale	35	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.05	Dusty	0.05	Slope	1.00
		Slope	0.04	Slope	0.04	Gravel	0.43
TmE:							
Tarklin	60	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00	Depth to saturated zone	1.00
		Slope	1.00	Slow water movement	0.96	Slope	1.00
		Slow water movement	0.96	Depth to saturated zone	0.94	Slow water movement	0.96
		Dusty	0.05	Dusty	0.05		
Minvale	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.05	Dusty	0.05	Gravel	0.43
Ua:							
Udorthents, loamy	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.03	Dusty	0.03	Slope	0.13
Ud:							
Udorthents, loamy	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.03	Dusty	0.03	Slope	0.13
Urban land	45	Not rated		Not rated		Not rated	
Ur:							
Urban land	92	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 9b.--Recreational Development (Part 2)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
Ak:							
Arkabutla	93	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.62	Depth to saturated zone	0.62	Depth to saturated zone	0.83
						Flooding	0.60
Ao:							
Arkabutla	57	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.62	Depth to saturated zone	0.62	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.83
Rosebloom	43	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
ArC2:							
Armour	95	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.04
AuE2:							
Arundel	60	Somewhat limited		Not limited		Very limited	
		Slope	0.32			Slope	1.00
						Depth to bedrock	0.46
Chickasaw	35	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Too dense	1.00
		Slope	0.32			Slope	1.00
BrB2:							
Brandon	92	Not limited		Not limited		Not limited	
BrC2:							
Brandon	90	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.04
BrC3:							
Brandon	100	Not limited		Not limited		Somewhat limited	
						Slope	0.04
CaB2:							
Calloway	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
CkA:							
Calloway	56	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Kurk	38	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 9b.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
Cl:							
Cascilla	95	Not limited		Not limited		Not limited	
Cn:							
Chenneby	93	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.32	Depth to saturated zone	0.32	Depth to saturated zone	0.68
						Flooding	0.60
CVA:							
Chenneby	45	Somewhat limited		Somewhat limited		Very limited	
		Flooding	0.40	Flooding	0.40	Flooding	1.00
		Depth to saturated zone	0.32	Depth to saturated zone	0.32	Depth to saturated zone	0.68
Enville	30	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.94
Arkabutla	20	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.62	Depth to saturated zone	0.62	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.83
DaC3:							
Deanburg	95	Not limited		Not limited		Not limited	
DeB3:							
Deanburg	95	Not limited		Not limited		Not limited	
DeC2:							
Deanburg	95	Not limited		Not limited		Not limited	
DnB2:							
Deanburg	95	Not limited		Not limited		Not limited	
DtB2:							
Dulac	69	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94
Tippah	27	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
DtB3:							
Dulac	69	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Tippah	27	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94
DtC2:							
Dulac	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94

Table 9b.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
DtC2:							
Tippah	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
DtC3:							
Dulac	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Tippah	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94
DtD2:							
Dulac	53	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Slope	0.16
Tippah	44	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.56
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Slope	0.16
DtD3:							
Dulac	53	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
Tippah	44	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Slope	0.16
Ea:							
Enville	97	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.98	Depth to saturated zone	0.99
						Flooding	0.60
Eb:							
Enville	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.94
Bibb	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
						Too dense	1.00
FaB2:							
Falkner	100	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.98	Depth to saturated zone	0.99
FeA:							
Feliciana	89	Not limited		Not limited		Not limited	

Table 9b.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
FeB2:							
Feliciana	92	Not limited		Not limited		Not limited	
GrA:							
Grenada	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
GrB2:							
Grenada	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
HgF:							
Hapludults	60	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	0.50				
Gullied land	40	Not rated		Not rated		Not rated	
HtE:							
Hawthorne	100	Somewhat limited		Not limited		Very limited	
		Slope	0.32			Slope	1.00
						Gravel	0.45
						Droughty	0.40
						Depth to bedrock	0.07
HTF:							
Hawthorne	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel	0.45
						Droughty	0.40
						Depth to bedrock	0.07
Sengtown	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Slope	1.00
Sugargrove	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
						Depth to bedrock	0.65
						Gravel	0.18
HuB:							
Humphreys	95	Not limited		Not limited		Somewhat limited	
						Gravel	0.01
HuC:							
Humphreys	95	Not limited		Not limited		Somewhat limited	
						Slope	0.04
						Gravel	0.01
Ik:							
Iuka	89	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
KrA:							
Kurk	94	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 9b.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
LaB2:							
Lax	100	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.73	Depth to saturated zone	0.73	Droughty	1.00
						Depth to saturated zone	0.88
LaC2:							
Lax	97	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Droughty	1.00
		Depth to saturated zone	0.73	Depth to saturated zone	0.73	Depth to saturated zone	0.88
						Slope	0.04
LbC3:							
Lax	97	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Water erosion	1.00	Water erosion	1.00	Droughty	1.00
						Slope	0.04
LeA:							
Lexington	92	Not limited		Not limited		Not limited	
LeB2:							
Lexington	94	Not limited		Not limited		Not limited	
LeC2:							
Lexington	95	Not limited		Not limited		Not limited	
LeD2:							
Lexington	97	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
LnB3:							
Lexington	95	Not limited		Not limited		Not limited	
LnC3:							
Lexington	95	Not limited		Not limited		Not limited	
LnD3:							
Lexington	97	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
Lo:							
Lobelville	93	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.92	Depth to saturated zone	0.92	Depth to saturated zone	0.96
						Flooding	0.60
LrA:							
Loring	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to saturated zone	0.28
LrB2:							
Loring	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to saturated zone	0.28

Table 9b.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
LrC2:							
Loring---------------	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to saturated zone	0.28
LuE2:							
Luverne--------------	100	Somewhat limited		Not limited		Very limited	
		Slope	0.18			Slope	1.00
Ng:							
Nugent---------------	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.36	Too sandy	0.36	Flooding	0.60
						Droughty	0.01
Ok:							
Ochlockonee----------	100	Not limited		Not limited		Not limited	
PaB2:							
Paden----------------	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.92	Depth to saturated zone	0.92	Depth to saturated zone	0.96
PaC2:							
Paden----------------	100	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.96
		Depth to saturated zone	0.92	Depth to saturated zone	0.92	Slope	0.04
PaC3:							
Paden----------------	100	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.96
		Depth to saturated zone	0.92	Depth to saturated zone	0.92	Slope	0.04
Pc:							
Pits, clay-----------	100	Not rated		Not rated		Not rated	
Pg:							
Pits, gravel or sand---------------	100	Not rated		Not rated		Not rated	
PoA:							
Providence-----------	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.18	Depth to saturated zone	0.18	Depth to saturated zone	0.56
PoB2:							
Providence-----------	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.92	Depth to saturated zone	0.92	Depth to saturated zone	0.96
PoC2:							
Providence-----------	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.92	Depth to saturated zone	0.92	Depth to saturated zone	0.96
PoD2:							
Providence-----------	100	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.96
		Depth to saturated zone	0.92	Depth to saturated zone	0.92	Slope	0.63

Table 9b.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
PrB3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
PrC3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
PrD3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
Pu:							
Pruitton	95	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
Re:							
Riverby	55	Not limited		Not limited		Very limited	
						Droughty	1.00
						Gravel	0.75
						Flooding	0.60
Ennis	45	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
RO:							
Rosebloom	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
Bibb	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
						Too dense	1.00
RtA:							
Routon	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RuA:							
Routon	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
SaC2:							
Saffell	59	Not limited		Not limited		Somewhat limited	
						Gravel	0.92
						Slope	0.16
Brandon	33	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.16

Table 9b.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
SaE2:							
Saffell	67	Not limited		Not limited		Very limited	
						Slope	1.00
						Gravel	0.92
Brandon	33	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
SAF:							
Saffell	51	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
						Gravel	0.92
Smithdale	25	Very limited		Very limited		Very limited	
		Slope	1.00	Water erosion	1.00	Slope	1.00
		Water erosion	1.00	Slope	0.78		
Brandon	24	Very limited		Very limited		Very limited	
		Slope	1.00	Water erosion	1.00	Slope	1.00
		Water erosion	1.00	Slope	0.08		
SeD2:							
Smithdale	100	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
SeD3:							
Smithdale	100	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
SeE2:							
Smithdale	100	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	0.32				
SgD2:							
Smithdale	67	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.37
Lexington	33	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
SgD3:							
Smithdale	67	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.37
Lexington	33	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
SgE2:							
Smithdale	67	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	0.32				
Lexington	33	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
SgE3:							
Smithdale	67	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	0.32				

Table 9b.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
SgE3:							
Lexington	33	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
SnD2:							
Smithdale	75	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
Luverne	25	Not limited		Not limited		Somewhat limited	
						Slope	0.16
SnD3:							
Smithdale	75	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
Luverne	25	Not limited		Not limited		Somewhat limited	
						Slope	0.16
SnE2:							
Smithdale	75	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Slope	0.32				
Luverne	25	Somewhat limited		Not limited		Very limited	
		Slope	0.18			Slope	1.00
SRF:							
Smithdale	65	Very limited		Very limited		Very limited	
		Slope	1.00	Water erosion	1.00	Slope	1.00
		Water erosion	1.00	Slope	0.78		
Remlik	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Slope	1.00
		Too sandy	0.36	Too sandy	0.36		
Luverne	15	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Slope	1.00
SuC:							
Sugargrove	45	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.65
						Gravel	0.18
						Slope	0.04
Sengtown	35	Not limited		Not limited		Somewhat limited	
						Slope	0.04
Hawthorne	20	Not limited		Not limited		Somewhat limited	
						Gravel	0.45
						Droughty	0.40
						Depth to bedrock	0.07
						Slope	0.04
SuE:							
Sugargrove	45	Not limited		Not limited		Somewhat limited	
						Slope	0.96
						Depth to bedrock	0.65
						Gravel	0.18
Sengtown	35	Somewhat limited		Not limited		Very limited	
		Slope	0.68			Slope	1.00

Table 9b.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
SuE:							
Hawthorne	20	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
						Gravel	0.45
						Droughty	0.40
						Depth to bedrock	0.07
TmC:							
Tarklin	65	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Droughty	0.79
						Slope	0.04
Minvale	35	Not limited		Not limited		Somewhat limited	
						Slope	0.04
TmE:							
Tarklin	60	Very limited		Very limited		Very limited	
		Water erosion	1.00	Water erosion	1.00	Slope	1.00
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94
		Slope	0.68			Droughty	0.90
Minvale	40	Somewhat limited		Not limited		Very limited	
		Slope	0.02			Slope	1.00
Ua:							
Udorthents, loamy	100	Not limited		Not limited		Somewhat limited	
						Droughty	0.09
Ud:							
Udorthents, loamy	55	Not limited		Not limited		Somewhat limited	
						Droughty	0.09
Urban land	45	Not rated		Not rated		Not rated	
Ur:							
Urban land	92	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 10a--Building Site Development (Part 1)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
Ak:							
Arkabutla	93	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Ao:							
Arkabutla	57	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Rosebloom	43	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
ArC2:							
Armour	95	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
AuE2:							
Arundel	60	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Shrink-swell	1.00
				Depth to soft bedrock	0.46		
Chickasaw	35	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Shrink-swell	1.00
BrB2:							
Brandon	92	Not limited		Not limited		Not limited	
BrC2:							
Brandon	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
BrC3:							
Brandon	100	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
CaB2:							
Calloway	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50				
CkA:							
Calloway	56	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50				

Table 10a--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
CkA:							
Kurk	38	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Cl:							
Cascilla	95	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Cn:							
Chenneby	93	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.95	Depth to saturated zone	1.00	Depth to saturated zone	0.95
CVA:							
Chenneby	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.95	Depth to saturated zone	1.00	Depth to saturated zone	0.95
Enville	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Arkabutla	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
DaC3:							
Deanburg	95	Not limited		Not limited		Somewhat limited	
						Slope	0.88
DeB3:							
Deanburg	95	Not limited		Not limited		Not limited	
DeC2:							
Deanburg	95	Not limited		Not limited		Somewhat limited	
						Slope	0.88
DnB2:							
Deanburg	95	Not limited		Not limited		Not limited	
DtB2:							
Dulac	69	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Tippah	27	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
		Shrink-swell	0.62	Shrink-swell	0.31	Shrink-swell	0.62
DtB3:							
Dulac	69	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 10a--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
DtB3:							
Tippah	27	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Shrink-swell	0.05		
DtC2:							
Dulac	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.88
Tippah	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
				Shrink-swell	0.15	Slope	0.88
DtC3:							
Dulac	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.88
Tippah	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Shrink-swell	0.05	Slope	0.88
DtD2:							
Dulac	53	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	1.00
Tippah	44	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	0.88
				Shrink-swell	0.15		
DtD3:							
Dulac	53	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	1.00
Tippah	44	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.16	Slope	0.16	Depth to saturated zone	1.00
				Shrink-swell	0.05		
Ea:							
Enville	97	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 10a--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
Eb:							
Enville	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Bibb	15	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
FaB2:							
Falkner	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.96	Shrink-swell	0.63	Shrink-swell	0.96
FeA:							
Feliciana	89	Not limited		Not limited		Not limited	
FeB2:							
Feliciana	92	Not limited		Not limited		Not limited	
GrA:							
Grenada	95	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
		Depth to thin cemented pan	0.50				
GrB2:							
Grenada	100	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
		Depth to thin cemented pan	0.50				
HgF:							
Hapludults	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Gullied land	40	Not rated		Not rated		Not rated	
HtE:							
Hawthorne	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Depth to soft bedrock	0.06		
HTF:							
Hawthorne	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Depth to soft bedrock	0.06		
Sengtown	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

Table 10a--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
HTF:							
Sugargrove	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Depth to soft bedrock	0.64		
HuB:							
Humphreys	95	Not limited		Not limited		Not limited	
HuC:							
Humphreys	95	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Ik:							
Iuka	89	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	1.00		
KrA:							
Kurk	94	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
LaB2:							
Lax	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50				
LaC2:							
Lax	97	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50	Slope	0.04	Slope	1.00
		Slope	0.04				
LbC3:							
Lax	97	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50	Slope	0.04	Slope	1.00
		Slope	0.04				
LeA:							
Lexington	92	Not limited		Not limited		Not limited	
LeB2:							
Lexington	94	Not limited		Not limited		Not limited	
LeC2:							
Lexington	95	Not limited		Not limited		Somewhat limited	
						Slope	0.50
LeD2:							
Lexington	97	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00

Table 10a--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
LnB3:							
Lexington	95	Not limited		Not limited		Not limited	
LnC3:							
Lexington	95	Not limited		Not limited		Somewhat limited	
						Slope	0.88
LnD3:							
Lexington	97	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Lo:							
Lobelville	93	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
LrA:							
Loring	90	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Depth to thin cemented pan	0.50				
LrB2:							
Loring	95	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Depth to thin cemented pan	0.50				
LrC2:							
Loring	100	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.56	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Depth to thin cemented pan	0.50			Slope	0.50
LuE2:							
Luverne	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.14	Shrink-swell	0.50
Ng:							
Nugent	100	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Ok:							
Ochlockonee	100	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
PaB2:							
Paden	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50				

Table 10a--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
PaC2:							
Paden	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50	Slope	0.04	Slope	1.00
		Slope	0.04				
PaC3:							
Paden	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50	Slope	0.04	Slope	1.00
		Slope	0.04				
Pc:							
Pits, clay	100	Not rated		Not rated		Not rated	
Pg:							
Pits, gravel or sand	100	Not rated		Not rated		Not rated	
PoA:							
Providence	97	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
		Depth to thin cemented pan	0.50				
PoB2:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50				
PoC2:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50			Slope	0.88
PoD2:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.63	Slope	0.63	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50				
PrB3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50				

Table 10a--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
PrC3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50			Slope	0.88
PrD3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Depth to thin cemented pan	0.50	Slope	0.16	Depth to saturated zone	1.00
		Slope	0.16				
Pu:							
Pruitton	95	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Re:							
Riverby	55	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Ennis	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
RO:							
Rosebloom	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Bibb	15	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RtA:							
Routon	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RuA:							
Routon	100	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
SaC2:							
Saffell	59	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Brandon	33	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
SaE2:							
Saffell	67	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Brandon	33	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

Table 10a--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
SAF:							
Saffell	51	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Smithdale	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Brandon	24	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
SeD2:							
Smithdale	100	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
SeD3:							
Smithdale	100	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
SeE2:							
Smithdale	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
SgD2:							
Smithdale	67	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
Lexington	33	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
SgD3:							
Smithdale	67	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
Lexington	33	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
SgE2:							
Smithdale	67	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Lexington	33	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
SgE3:							
Smithdale	67	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Lexington	33	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
SnD2:							
Smithdale	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Luverne	25	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Slope	0.16	Slope	1.00
		Slope	0.16	Shrink-swell	0.14	Shrink-swell	0.50
SnD3:							
Smithdale	75	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00

Table 10a--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
SnD3:							
Luverne	25	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Slope	0.16	Slope	1.00
		Slope	0.16	Shrink-swell	0.03	Shrink-swell	0.50
SnE2:							
Smithdale	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Luverne	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.14	Shrink-swell	0.50
SRF:							
Smithdale	65	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Remlik	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Luverne	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.01	Shrink-swell	0.50
SuC:							
Sugargrove	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Depth to soft bedrock	0.64	Slope	1.00
				Slope	0.04		
Sengtown	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
Hawthorne	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Depth to soft bedrock	0.06	Slope	1.00
				Slope	0.04		
SuE:							
Sugargrove	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
				Depth to soft bedrock	0.64		
Sengtown	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Hawthorne	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Depth to soft bedrock	0.06		
TmC:							
Tarklin	65	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50	Slope	0.04	Slope	1.00
		Slope	0.04				

Table 10a--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
TmC:							
Minvale	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Slope	1.00
TmE:							
Tarklin	60	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to saturated zone	1.00
		Depth to thin cemented pan	0.50				
Minvale	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Ua:							
Udorthents, loamy	100	Not limited		Not limited		Not limited	
Ud:							
Udorthents, loamy	55	Not limited		Not limited		Not limited	
Urban land	45	Not rated		Not rated		Not rated	
Ur:							
Urban land	92	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 10b--Building Site Development (Part 2)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Local roads and streets: Value	Shallow excavations: Rating class and limiting features	Shallow excavations: Value	Lawns and landscaping: Rating class and limiting features	Lawns and landscaping: Value
Ak:							
Arkabutla-----------	93	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to	1.00	Depth to	0.83
		Low strength	1.00	saturated zone		saturated zone	
		Depth to	0.83	Flooding	0.60	Flooding	0.60
		saturated zone		Unstable	0.10		
				excavation walls			
Ao:							
Arkabutla-----------	57	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to	1.00	Flooding	1.00
		Low strength	1.00	saturated zone		Depth to	0.83
		Depth to	0.83	Flooding	0.80	saturated zone	
		saturated zone		Unstable	0.10		
				excavation walls			
Rosebloom-----------	43	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Flooding	1.00
		saturated zone		saturated zone		Depth to	1.00
		Flooding	1.00	Flooding	0.80	saturated zone	
		Low strength	1.00	Unstable	0.10		
				excavation walls			
ArC2:							
Armour--------------	95	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Unstable	0.10	Slope	0.04
				excavation walls			
		Slope	0.04	Slope	0.04		
AuE2:							
Arundel-------------	60	Very limited		Very limited		Very limited	
		Low strength	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	1.00	Too clayey	0.64	Depth to bedrock	0.46
		Slope	1.00	Depth to soft	0.46		
				bedrock			
				Unstable	0.10		
				excavation walls			
Chickasaw-----------	35	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Slope	1.00	Too dense	1.00
		Low strength	1.00	Too clayey	1.00	Slope	1.00
		Slope	1.00	Unstable	0.10		
				excavation walls			
BrB2:							
Brandon-------------	92	Very limited		Very limited		Not limited	
		Low strength	1.00	Unstable	1.00		
				excavation walls			
BrC2:							
Brandon-------------	90	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Unstable	1.00	Slope	0.04
		Slope	0.04	excavation walls			
				Slope	0.04		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
BrC3:							
Brandon	100	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Unstable excavation walls	1.00	Slope	0.04
		Slope	0.04	Slope	0.04		
CaB2:							
Calloway	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
CkA:							
Calloway	56	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
Kurk	38	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
Cl:							
Cascilla	95	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Unstable excavation walls	0.10		
		Flooding	0.40				
Cn:							
Chenneby	93	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.68
		Low strength	1.00	Unstable excavation walls	1.00	Flooding	0.60
		Depth to saturated zone	0.68	Flooding	0.60		
CVA:							
Chenneby	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Low strength	1.00	Unstable excavation walls	1.00	Depth to saturated zone	0.68
		Depth to saturated zone	0.68	Flooding	0.80		
Enville	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Depth to saturated zone	0.94	Unstable excavation walls	1.00	Depth to saturated zone	0.94
				Flooding	0.80		
Arkabutla	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Low strength	1.00	Flooding	0.80	Depth to saturated zone	0.83
		Depth to saturated zone	0.83	Unstable excavation walls	0.10		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
DaC3:							
Deanburg------------	95	Not limited		Very limited		Not limited	
				Unstable excavation walls	1.00		
DeB3:							
Deanburg------------	95	Somewhat limited		Very limited		Not limited	
		Low strength	0.22	Unstable excavation walls	1.00		
DeC2:							
Deanburg------------	95	Somewhat limited		Very limited		Not limited	
		Low strength	0.22	Unstable excavation walls	1.00		
DnB2:							
Deanburg------------	95	Somewhat limited		Very limited		Not limited	
		Low strength	0.22	Unstable excavation walls	1.00		
DtB2:							
Dulac---------------	69	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.94	Too clayey	0.55		
				Unstable excavation walls	0.10		
Tippah--------------	27	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Shrink-swell	0.62	Unstable excavation walls	0.10		
		Depth to saturated zone	0.56	Too clayey	0.03		
DtB3:							
Dulac---------------	69	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Too clayey	0.55		
				Unstable excavation walls	0.10		
Tippah--------------	27	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.94	Unstable excavation walls	0.10		
				Too clayey	0.03		
DtC2:							
Dulac---------------	70	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.94	Too clayey	0.55		
				Unstable excavation walls	0.10		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
DtC2:							
Tippah	30	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Depth to saturated zone	0.56	Unstable excavation walls	0.10		
				Too clayey	0.03		
DtC3:							
Dulac	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Too clayey	0.55		
				Unstable excavation walls	0.10		
Tippah	30	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.94	Unstable excavation walls	0.10		
				Too clayey	0.03		
DtD2:							
Dulac	53	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.94	Too clayey	0.55	Slope	0.16
		Slope	0.16	Slope	0.16		
				Unstable excavation walls	0.10		
Tippah	44	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Depth to saturated zone	0.56	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		
				Too clayey	0.03		
DtD3:							
Dulac	53	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Too clayey	0.55	Slope	0.16
		Slope	0.16	Slope	0.16		
				Unstable excavation walls	0.10		
Tippah	44	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.94
		Depth to saturated zone	0.94	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		
				Too clayey	0.03		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Ea:							
Enville	97	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Unstable excavation walls	1.00	Flooding	0.60
				Flooding	0.60		
Eb:							
Enville	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Depth to saturated zone	0.94	Unstable excavation walls	1.00	Depth to saturated zone	0.94
				Flooding	0.80		
Bibb	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Unstable excavation walls	1.00	Depth to saturated zone	1.00
				Flooding	0.80	Too dense	1.00
FaB2:							
Falkner	100	Very limited		Very limited		Very limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	0.99	Too clayey	0.18		
		Shrink-swell	0.96	Unstable excavation walls	0.10		
FeA:							
Feliciana	89	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Unstable excavation walls	0.10		
FeB2:							
Feliciana	92	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Unstable excavation walls	0.10		
GrA:							
Grenada	95	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Unstable excavation walls	0.10		
GrB2:							
Grenada	100	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Unstable excavation walls	0.10		
HgF:							
Hapludults	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	0.22	Unstable excavation walls	0.10		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
HgF:							
Gullied land	40	Not rated		Not rated		Not rated	
HtE:							
Hawthorne	100	Very limited		Very limited		Very limited	
		Slope	1.00	Unstable excavation walls	1.00	Slope	1.00
				Slope	1.00	Gravel	0.45
				Depth to soft bedrock	0.06	Droughty	0.40
						Depth to bedrock	0.07
HTF:							
Hawthorne	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Unstable excavation walls	1.00	Gravel	0.45
				Depth to soft bedrock	0.06	Droughty	0.40
						Depth to bedrock	0.07
Sengtown	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Unstable excavation walls	1.00		
				Too clayey	0.76		
Sugargrove	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	0.22	Unstable excavation walls	1.00	Depth to bedrock	0.65
				Depth to soft bedrock	0.64	Gravel	0.18
HuB:							
Humphreys	95	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.78	Unstable excavation walls	1.00	Gravel	0.01
HuC:							
Humphreys	95	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.78	Unstable excavation walls	1.00	Slope	0.04
		Slope	0.04	Slope	0.04	Gravel	0.01
Ik:							
Iuka	89	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
				Flooding	0.60		
				Unstable excavation walls	0.10		
KrA:							
Kurk	94	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Unstable excavation walls	0.10		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
LaB2:							
Lax	100	Very limited		Very limited		Very limited	
		Low strength	1.00	Depth to saturated zone	1.00	Droughty	1.00
		Depth to saturated zone	0.88	Unstable excavation walls	1.00	Depth to saturated zone	0.88
LaC2:							
Lax	97	Very limited		Very limited		Very limited	
		Low strength	1.00	Depth to saturated zone	1.00	Droughty	1.00
		Depth to saturated zone	0.88	Unstable excavation walls	1.00	Depth to saturated zone	0.88
		Slope	0.04	Slope	0.04	Slope	0.04
LbC3:							
Lax	97	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	0.22	Unstable excavation walls	1.00	Droughty	1.00
		Slope	0.04	Slope	0.04	Slope	0.04
LeA:							
Lexington	92	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Unstable excavation walls	0.10		
LeB2:							
Lexington	94	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Unstable excavation walls	0.10		
LeC2:							
Lexington	95	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Unstable excavation walls	0.10		
LeD2:							
Lexington	97	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		
LnB3:							
Lexington	95	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Unstable excavation walls	0.10		
LnC3:							
Lexington	95	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Unstable excavation walls	0.10		
LnD3:							
Lexington	97	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Lo:							
Lobelville	93	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.96
		Depth to saturated zone	0.96	Unstable excavation walls	1.00	Flooding	0.60
				Flooding	0.60		
LrA:							
Loring	90	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.28
		Depth to saturated zone	0.28	Unstable excavation walls	0.10		
LrB2:							
Loring	95	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.28
		Depth to saturated zone	0.28	Unstable excavation walls	0.10		
LrC2:							
Loring	100	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.28
		Depth to saturated zone	0.28	Unstable excavation walls	0.10		
LuE2:							
Luverne	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.60		
		Shrink-swell	0.50	Unstable excavation walls	0.10		
Ng:							
Nugent	100	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Unstable excavation walls	1.00	Flooding	0.60
				Flooding	0.60	Droughty	0.01
Ok:							
Ochlockonee	100	Somewhat limited		Somewhat limited		Not limited	
		Flooding	0.40	Unstable excavation walls	0.10		
PaB2:							
Paden	100	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.96
		Depth to saturated zone	0.96	Unstable excavation walls	0.10		
PaC2:							
Paden	100	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.96
		Depth to saturated zone	0.96	Unstable excavation walls	0.10	Slope	0.04
		Slope	0.04	Slope	0.04		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
PaC3:							
Paden---------------	100	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.96
		Depth to saturated zone	0.96	Unstable excavation walls	0.10	Slope	0.04
		Slope	0.04	Slope	0.04		
Pc:							
Pits, clay----------	100	Not rated		Not rated		Not rated	
Pg:							
Pits, gravel or sand	100	Not rated		Not rated		Not rated	
PoA:							
Providence----------	97	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Depth to saturated zone	0.56	Unstable excavation walls	0.10		
PoB2:							
Providence----------	100	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.96
		Depth to saturated zone	0.96	Unstable excavation walls	0.10		
PoC2:							
Providence----------	100	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.96
		Depth to saturated zone	0.96	Unstable excavation walls	0.10		
PoD2:							
Providence----------	100	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.96
		Depth to saturated zone	0.96	Slope	0.63	Slope	0.63
		Slope	0.63	Unstable excavation walls	0.10		
PrB3:							
Providence----------	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
PrC3:							
Providence----------	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Unstable excavation walls	0.10		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
PrD3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		
Pu:							
Pruitton	95	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Unstable excavation walls	1.00	Flooding	0.60
		Low strength	1.00	Flooding	0.60		
Re:							
Riverby	55	Very limited		Very limited		Very limited	
		Flooding	1.00	Unstable excavation walls	1.00	Droughty	1.00
						Gravel	0.75
				Flooding	0.60	Flooding	0.60
Ennis	45	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Unstable excavation walls	1.00	Flooding	0.60
		Low strength	0.22				
				Flooding	0.60		
RO:							
Rosebloom	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
						Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.80		
		Low strength	1.00	Unstable excavation walls	0.10		
Bibb	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
						Depth to saturated zone	1.00
		Flooding	1.00	Unstable excavation walls	1.00	Too dense	1.00
				Flooding	0.80		
RtA:							
Routon	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
RuA:							
Routon	100	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
SaC2:							
Saffell	59	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Unstable excavation walls	1.00	Gravel	0.92
						Slope	0.16
				Slope	0.16		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
SaC2:							
Brandon-------------	33	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Unstable excavation walls	1.00	Slope	0.16
		Slope	0.16	Slope	0.16		
SaE2:							
Saffell-------------	67	Very limited		Very limited		Very limited	
		Slope	1.00	Unstable excavation walls	1.00	Slope	1.00
				Slope	1.00	Gravel	0.92
Brandon-------------	33	Very limited		Very limited		Very limited	
		Slope	1.00	Unstable excavation walls	1.00	Slope	1.00
		Low strength	1.00	Slope	1.00		
SAF:							
Saffell-------------	51	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Unstable excavation walls	1.00	Gravel	0.92
Smithdale-----------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
Brandon-------------	24	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Unstable excavation walls	1.00		
SeD2:							
Smithdale-----------	100	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		
SeD3:							
Smithdale-----------	100	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		
SeE2:							
Smithdale-----------	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
SgD2:							
Smithdale-----------	67	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Unstable excavation walls	0.10		
Lexington-----------	33	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
SgD3:							
Smithdale-----------	67	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Unstable excavation walls	0.10		
Lexington-----------	33	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		
SgE2:							
Smithdale-----------	67	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
Lexington-----------	33	Very limited		Very limited		Very limited	
		Low strength	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Unstable excavation walls	0.10		
SgE3:							
Smithdale-----------	67	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
Lexington-----------	33	Very limited		Very limited		Very limited	
		Low strength	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Unstable excavation walls	0.10		
SnD2:							
Smithdale-----------	75	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		
Luverne-------------	25	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.60	Slope	0.16
		Shrink-swell	0.50	Slope	0.16		
		Slope	0.16	Unstable excavation walls	0.10		
SnD3:							
Smithdale-----------	75	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Slope	0.16	Unstable excavation walls	0.10		
Luverne-------------	25	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Unstable excavation walls	1.00	Slope	0.16
		Shrink-swell	0.50				
		Slope	0.16	Too clayey	0.60		
				Slope	0.16		

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
SnE2:							
Smithdale	75	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
Luverne	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.60		
		Shrink-swell	0.50	Unstable excavation walls	0.10		
SRF:							
Smithdale	65	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Unstable excavation walls	0.10		
Remlik	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Unstable excavation walls	1.00		
Luverne	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Unstable excavation walls	1.00		
		Shrink-swell	0.50	Too clayey	0.60		
SuC:							
Sugargrove	45	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.22	Unstable excavation walls	1.00	Depth to bedrock	0.65
		Slope	0.04	Depth to soft bedrock	0.64	Gravel	0.18
				Slope	0.04	Slope	0.04
Sengtown	35	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Unstable excavation walls	1.00	Slope	0.04
		Slope	0.04	Too clayey	0.76		
				Slope	0.04		
Hawthorne	20	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Unstable excavation walls	1.00	Gravel	0.45
				Depth to soft bedrock	0.06	Droughty	0.40
				Slope	0.04	Depth to bedrock	0.07
						Slope	0.04
SuE:							
Sugargrove	45	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.96	Unstable excavation walls	1.00	Slope	0.96
		Low strength	0.22	Slope	0.96	Depth to bedrock	0.65
				Depth to soft bedrock	0.64	Gravel	0.18

Table 10b--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
SuE:							
Sengtown	35	Very limited		Very limited		Very limited	
		Slope	1.00	Unstable excavation walls	1.00	Slope	1.00
		Low strength	1.00	Slope	1.00		
				Too clayey	0.76		
Hawthorne	20	Very limited		Very limited		Very limited	
		Slope	1.00	Unstable excavation walls	1.00	Slope	1.00
				Slope	1.00	Gravel	0.45
				Depth to soft bedrock	0.06	Droughty	0.40
						Depth to bedrock	0.07
TmC:							
Tarklin	65	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.94	Depth to saturated zone	1.00	Depth to saturated zone	0.94
		Slope	0.04	Unstable excavation walls	1.00	Droughty	0.79
				Slope	0.04	Slope	0.04
Minvale	35	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.04	Unstable excavation walls	1.00	Slope	0.04
				Slope	0.04		
TmE:							
Tarklin	60	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
		Depth to saturated zone	0.94	Unstable excavation walls	1.00	Depth to saturated zone	0.94
				Slope	1.00	Droughty	0.90
Minvale	40	Very limited		Very limited		Very limited	
		Slope	1.00	Unstable excavation walls	1.00	Slope	1.00
				Slope	1.00		
Ua:							
Udorthents, loamy	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Low strength	0.22	Unstable excavation walls	0.10	Droughty	0.09
Ud:							
Udorthents, loamy	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Low strength	0.22	Unstable excavation walls	0.10	Droughty	0.09
Urban land	45	Not rated		Not rated		Not rated	
Ur:							
Urban land	92	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 11a.--Sanitary Facilities (Part 1)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
Ak:					
Arkabutla	93	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	0.50
Ao:					
Arkabutla	57	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	0.50
Rosebloom	43	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.47	Seepage	0.53
ArC2:					
Armour	95	Somewhat limited		Very limited	
		Slow water movement	0.47	Slope	1.00
				Seepage	0.53
		Slope	0.04		
AuE2:					
Arundel	60	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slow water movement	1.00	Slope	1.00
		Slope	1.00		
Chickasaw	35	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
				Depth to soft bedrock	0.96
		Slope	1.00		
		Depth to bedrock	0.99		
BrB2:					
Brandon	92	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.32
		Slow water movement	0.47		

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
BrC2:					
Brandon	90	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47	Slope	1.00
		Slope	0.04		
BrC3:					
Brandon	100	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47	Slope	1.00
		Slope	0.04		
CaB2:					
Calloway	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.50
				Slope	0.32
CkA:					
Calloway	56	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.50
Kurk	38	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.53
Cl:					
Cascilla	95	Somewhat limited		Somewhat limited	
		Slow water movement	0.47	Seepage	0.53
		Flooding	0.40	Flooding	0.40
Cn:					
Chenneby	93	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	0.53
CVA:					
Chenneby	45	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	0.53

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
CVA:					
Enville	30	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
Arkabutla	20	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	0.50
DaC3:					
Deanburg	95	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47	Slope	1.00
DeB3:					
Deanburg	95	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Filtering capacity	1.00	Slope	0.32
DeC2:					
Deanburg	95	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Filtering capacity	1.00	Slope	1.00
DnB2:					
Deanburg	95	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47	Slope	0.32
DtB2:					
Dulac	69	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.53
		Depth to bedrock	0.09	Slope	0.32
Tippah	27	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96
		Slow water movement	1.00	Seepage	0.53
				Slope	0.32

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
DtB3:					
Dulac	69	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.53
				Slope	0.32
		Depth to bedrock	0.09		
Tippah	27	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.53
				Slope	0.32
DtC2:					
Dulac	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	1.00
				Seepage	0.53
		Depth to bedrock	0.09		
Tippah	30	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
				Depth to saturated zone	0.96
		Slow water movement	1.00	Seepage	0.53
DtC3:					
Dulac	70	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	1.00
				Seepage	0.53
		Depth to bedrock	0.09		
Tippah	30	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	1.00
				Seepage	0.53
DtD2:					
Dulac	53	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
				Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.53
		Slope	0.16		
		Depth to bedrock	0.09		
Tippah	44	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
				Depth to saturated zone	0.96
		Slow water movement	1.00	Seepage	0.53
		Slope	0.16		

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
DtD3:					
Dulac	53	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slow water movement	1.00	Depth to saturated zone	1.00
		Slope	0.16	Seepage	0.53
		Depth to bedrock	0.09		
Tippah	44	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slow water movement	1.00	Depth to saturated zone	1.00
		Slope	0.16	Seepage	0.53
Ea:					
Enville	97	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
Eb:					
Enville	85	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
Bibb	15	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.47	Seepage	0.53
FaB2:					
Falkner	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	0.32
FeA:					
Feliciana	89	Somewhat limited		Somewhat limited	
		Slow water movement	0.47	Seepage	0.53
FeB2:					
Feliciana	92	Somewhat limited		Somewhat limited	
		Slow water movement	0.47	Seepage	0.53
				Slope	0.32

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
GrA:					
Grenada-------------	95	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Slow water movement	1.00	Seepage	0.53
GrB2:					
Grenada-------------	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Slow water movement	1.00	Seepage	0.53
				Slope	0.32
HgF:					
Hapludults----------	60	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slope	1.00	Slope	1.00
Gullied land--------	40	Not rated		Not rated	
HtE:					
Hawthorne-----------	100	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
HTF:					
Hawthorne-----------	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
Sengtown------------	30	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	0.53
Sugargrove----------	25	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
HuB:					
Humphreys-----------	95	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.32
HuC:					
Humphreys-----------	95	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slope	0.04	Slope	1.00

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
Ik:					
Iuka	89	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.47	Seepage	0.53
KrA:					
Kurk	94	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.53
LaB2:					
Lax	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	0.32
LaC2:					
Lax	97	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	1.00
		Slope	0.04		
LbC3:					
Lax	97	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	1.00
		Slope	0.04		
LeA:					
Lexington	92	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47		
LeB2:					
Lexington	94	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.32
		Slow water movement	0.47		
LeC2:					
Lexington	95	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.92
		Slow water movement	0.47		

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
LeD2:					
Lexington	97	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	1.00
		Slope	0.16		
LnB3:					
Lexington	95	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47	Slope	0.32
LnC3:					
Lexington	95	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47	Slope	1.00
LnD3:					
Lexington	97	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	1.00
		Slope	0.16		
Lo:					
Lobelville	93	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
LrA:					
Loring	90	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.83
		Slow water movement	1.00	Seepage	0.53
LrB2:					
Loring	95	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.83
		Slow water movement	1.00	Seepage	0.53
				Slope	0.32
LrC2:					
Loring	100	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Slope	0.92
		Slow water movement	1.00	Depth to saturated zone	0.83
				Seepage	0.53

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
LuE2:					
Luverne-------------	100	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	1.00		
Ng:					
Nugent--------------	100	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
Ok:					
Ochlockonee---------	100	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Flooding	0.40
		Slow water movement	0.50		
		Flooding	0.40		
PaB2:					
Paden---------------	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.53
				Slope	0.08
PaC2:					
Paden---------------	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	1.00
				Seepage	0.53
		Slope	0.04		
PaC3:					
Paden---------------	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	1.00
				Seepage	0.53
		Slope	0.04		
Pc:					
Pits, clay----------	100	Not rated		Not rated	
Pg:					
Pits, gravel or sand	100	Not rated		Not rated	
PoA:					
Providence----------	97	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96
		Slow water movement	1.00	Seepage	0.53

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
PoB2:					
Providence	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.53
				Slope	0.32
PoC2:					
Providence	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	1.00
				Seepage	0.53
PoD2:					
Providence	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slow water movement	1.00	Depth to saturated zone	1.00
		Slope	0.63	Seepage	0.53
PrB3:					
Providence	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.53
				Slope	0.32
PrC3:					
Providence	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	1.00
				Seepage	0.53
PrD3:					
Providence	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slow water movement	1.00	Depth to saturated zone	1.00
		Slope	0.16	Seepage	0.53
Pu:					
Pruitton	95	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
Re:					
Riverby	55	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Filtering capacity	1.00	Seepage	1.00
		Seepage, bottom layer	1.00		

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Re:					
Ennis	45	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
RO:					
Rosebloom	85	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.47	Seepage	0.53
Bibb	15	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.47	Seepage	0.53
RtA:					
Routon	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.50
RuA:					
Routon	100	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.50
SaC2:					
Saffell	59	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	1.00
		Filtering capacity	1.00		
		Slope	0.16		
Brandon	33	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	1.00
		Slow water movement	0.47		
		Slope	0.16		
SaE2:					
Saffell	67	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
				Seepage	1.00
		Slope	1.00		
		Filtering capacity	1.00		

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
SaE2:					
Brandon	33	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
		Slow water movement	0.47		
SAF:					
Saffell	51	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Filtering capacity	1.00		
Smithdale	25	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47		
Brandon	24	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47		
SeD2:					
Smithdale	100	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	1.00
		Slope	0.16		
SeD3:					
Smithdale	100	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	1.00
		Slope	0.16		
SeE2:					
Smithdale	100	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
		Slow water movement	0.47		
SgD2:					
Smithdale	67	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	1.00
		Slope	0.37		

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
SgD2:					
Lexington-----------	33	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	1.00
		Slope	0.16		
SgD3:					
Smithdale-----------	67	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	1.00
		Slope	0.37		
Lexington-----------	33	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	1.00
		Slope	0.16		
SgE2:					
Smithdale-----------	67	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
		Slow water movement	0.47		
Lexington-----------	33	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
		Slow water movement	0.47		
SgE3:					
Smithdale-----------	67	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
		Slow water movement	0.47		
Lexington-----------	33	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
		Slow water movement	0.47		
SnD2:					
Smithdale-----------	75	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	1.00
		Slope	0.16		

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
SnD2:					
Luverne	25	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	0.16		
SnD3:					
Smithdale	75	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
				Seepage	1.00
		Slow water movement	0.47		
		Slope	0.16		
Luverne	25	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	0.16		
SnE2:					
Smithdale	75	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
				Seepage	1.00
		Slope	1.00		
		Slow water movement	0.47		
Luverne	25	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	1.00		
SRF:					
Smithdale	65	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47		
Remlik	20	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.47		
Luverne	15	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	1.00		
SuC:					
Sugargrove	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Seepage, bottom layer	1.00		
				Slope	1.00
		Slope	0.04	Seepage	1.00

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
SuC:					
Sengtown------------	35	Somewhat limited		Very limited	
		Slow water movement	0.47	Slope	1.00
		Slope	0.04	Seepage	0.53
Hawthorne-----------	20	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slope	0.04	Slope	1.00
SuE:					
Sugargrove----------	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	0.96	Seepage	1.00
Sengtown------------	35	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	0.53
Hawthorne-----------	20	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Seepage, bottom layer	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
TmC:					
Tarklin-------------	65	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Slope	1.00
		Slope	0.04		
Minvale-------------	35	Somewhat limited		Very limited	
		Slow water movement	0.47	Slope	1.00
		Slope	0.04	Seepage	0.53
TmE:					
Tarklin-------------	60	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slow water movement	1.00	Depth to saturated zone	1.00
		Slope	1.00		
Minvale-------------	40	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	0.47	Seepage	0.53
Ua:					
Udorthents, loamy---	100	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.08

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
Ud:					
Udorthents, loamy	55	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.08
Urban land	45	Not rated		Not rated	
Ur:					
Urban land	92	Not rated		Not rated	
W:					
Water	100	Not rated		Not rated	

Table 11b.--Sanitary Facilities (Part 2)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ak:							
Arkabutla	93	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Ao:							
Arkabutla	57	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Rosebloom	43	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
ArC2:							
Armour	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.04	Slope	0.04	Slope	0.04
AuE2:							
Arundel	60	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Hard to compact	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Too clayey	1.00			Slope	1.00
						Too clayey	1.00
Chickasaw	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00	Hard to compact	1.00
		Too clayey	1.00	Depth to bedrock	0.96	Too clayey	1.00
		Slope	1.00			Slope	1.00
						Depth to bedrock	0.96
BrB2:							
Brandon	92	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
						Content of gravel	0.30
		Too clayey	0.01			Too clayey	0.01
BrC2:							
Brandon	90	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
				Slope	0.04	Content of gravel	0.30
		Slope	0.04			Slope	0.04
		Too clayey	0.01			Too clayey	0.01
BrC3:							
Brandon	100	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
				Slope	0.04	Content of gravel	0.30
		Slope	0.04			Slope	0.04
		Too clayey	0.01			Too clayey	0.01

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
CaB2:							
Calloway	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
CkA:							
Calloway	56	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Kurk	38	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Cl:							
Cascilla	95	Somewhat limited		Somewhat limited		Not limited	
		Flooding	0.40	Flooding	0.40		
Cn:							
Chenneby	93	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
CVA:							
Chenneby	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.99
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Enville	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Arkabutla	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
DaC3:							
Deanburg	95	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
		Too sandy	0.50			Too sandy	0.50
DeB3:							
Deanburg	95	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
		Too sandy	0.50			Too sandy	0.50
DeC2:							
Deanburg	95	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
		Too sandy	0.50			Too sandy	0.50

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
DnB2:							
Deanburg	95	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
		Too sandy	0.50			Too sandy	0.50
DtB2:							
Dulac	69	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to bedrock	1.00			Hard to compact	1.00
		Too clayey	0.91			Too clayey	0.91
Tippah	27	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Hard to compact	1.00
		Too clayey	0.85			Depth to saturated zone	0.98
						Too clayey	0.85
DtB3:							
Dulac	69	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to bedrock	1.00			Hard to compact	1.00
		Too clayey	0.89			Too clayey	0.89
Tippah	27	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too clayey	0.58			Hard to compact	1.00
						Too clayey	0.58
DtC2:							
Dulac	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to bedrock	1.00			Hard to compact	1.00
		Too clayey	0.91			Too clayey	0.91
Tippah	30	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Hard to compact	1.00
		Too clayey	0.73			Depth to saturated zone	0.98
						Too clayey	0.73
DtC3:							
Dulac	70	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to bedrock	1.00			Hard to compact	1.00
		Too clayey	0.89			Too clayey	0.89
Tippah	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too clayey	0.58			Hard to compact	1.00
						Too clayey	0.58

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
DtD2:							
Dulac	53	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to bedrock	1.00	Slope	0.16	Hard to compact	1.00
		Too clayey	0.91			Too clayey	0.91
		Slope	0.16			Slope	0.16
Tippah	44	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Hard to compact	1.00
		Too clayey	0.73	Slope	0.16	Depth to saturated zone	0.98
		Slope	0.16			Too clayey	0.73
						Slope	0.16
DtD3:							
Dulac	53	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to bedrock	1.00	Slope	0.16	Hard to compact	1.00
		Too clayey	0.89			Too clayey	0.89
		Slope	0.16			Slope	0.16
Tippah	44	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too clayey	0.58	Slope	0.16	Hard to compact	1.00
		Slope	0.16			Too clayey	0.58
						Slope	0.16
Ea:							
Enville	97	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Eb:							
Enville	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Bibb	15	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	0.50
		Too sandy	0.50				
FaB2:							
Falkner	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to bedrock	1.00			Hard to compact	1.00
		Too clayey	0.96			Too clayey	0.96
FeA:							
Feliciana	89	Not limited		Not limited		Not limited	

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
FeB2:							
Feliciana	92	Not limited		Not limited		Not limited	
GrA:							
Grenada	95	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	0.99
GrB2:							
Grenada	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	0.99
HgF:							
Hapludults	60	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Seepage	0.52
Gullied land	40	Not rated		Not rated		Not rated	
HtE:							
Hawthorne	100	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Content of gravel	1.00
		Seepage, bottom layer	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
						Seepage	0.52
HTF:							
Hawthorne	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Seepage	1.00	Content of gravel	1.00
		Seepage, bottom layer	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
						Seepage	0.52
Sengtown	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	1.00			Hard to compact	1.00
						Too clayey	1.00
						Content of gravel	0.75
Sugargrove	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.22
						Content of gravel	0.10
HuB:							
Humphreys	95	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Content of gravel	0.65
						Seepage	0.52
HuC:							
Humphreys	95	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Content of gravel	0.65
		Slope	0.04	Slope	0.04	Seepage	0.52
						Slope	0.04

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ik:							
Iuka	89	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.50
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
KrA:							
Kurk	94	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
LaB2:							
Lax	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Content of gravel	0.66
LaC2:							
Lax	97	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.04	Slope	0.04	Content of gravel	0.66
						Slope	0.04
LbC3:							
Lax	97	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.04	Slope	0.04	Content of gravel	0.90
						Slope	0.04
LeA:							
Lexington	92	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
LeB2:							
Lexington	94	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
LeC2:							
Lexington	95	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
LeD2:							
Lexington	97	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
		Slope	0.16	Slope	0.16	Slope	0.16
LnB3:							
Lexington	95	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
LnC3:							
Lexington	95	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
LnD3:							
Lexington	97	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
		Slope	0.16	Slope	0.16	Slope	0.16
Lo:							
Lobelville	93	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Content of gravel	0.28
LrA:							
Loring	90	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.83	Depth to saturated zone	0.91
LrB2:							
Loring	95	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.83	Depth to saturated zone	0.91
LrC2:							
Loring	100	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.83	Depth to saturated zone	0.91
LuE2:							
Luverne	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	0.96			Too clayey	0.96
Ng:							
Nugent	100	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Seepage	0.52
		Seepage, bottom layer	1.00	Seepage	1.00	Too sandy	0.50
		Too sandy	0.50				
Ok:							
Ochlockonee	100	Very limited		Somewhat limited		Not limited	
		Seepage, bottom layer	1.00	Flooding	0.40		
		Flooding	0.40				
PaB2:							
Paden	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
PaC2:							
Paden	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.04	Slope	0.04	Slope	0.04

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
PaC3:							
Paden	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.04	Slope	0.04	Slope	0.04
Pc:							
Pits, clay	100	Not rated		Not rated		Not rated	
Pg:							
Pits, gravel or sand	100	Not rated		Not rated		Not rated	
PoA:							
Providence	97	Very limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.96	Depth to saturated zone	0.98
PoB2:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
PoC2:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
PoD2:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.63	Slope	0.63	Slope	0.63
PrB3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
PrC3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
PrD3:							
Providence	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.16	Slope	0.16	Slope	0.16
Pu:							
Pruitton	95	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Seepage	0.52
		Seepage, bottom layer	1.00	Seepage	1.00		
Re:							
Riverby	55	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Content of gravel	1.00
		Too sandy	0.50			Too sandy	0.50

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
Re:							
Ennis	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Content of gravel	0.72
RO:							
Rosebloom	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
Bibb	15	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	0.50
		Too sandy	0.50				
RtA:							
Routon	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
RuA:							
Routon	100	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
SaC2:							
Saffell	59	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Content of gravel	1.00
		Slope	0.16	Slope	0.16	Seepage	1.00
						Slope	0.16
Brandon	33	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
		Slope	0.16	Slope	0.16	Content of gravel	0.30
		Too clayey	0.01			Slope	0.16
						Too clayey	0.01
SaE2:							
Saffell	67	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Content of gravel	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
						Seepage	1.00
Brandon	33	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Seepage	1.00
		Too clayey	0.01			Content of gravel	0.30
						Too clayey	0.01
SAF:							
Saffell	51	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Content of gravel	1.00
						Seepage	1.00

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
SAF:							
Smithdale	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00				
Brandon	24	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
						Content of gravel	0.30
		Too clayey	0.01			Too clayey	0.01
SeD2:							
Smithdale	100	Very limited		Somewhat limited		Somewhat limited	
		Seepage, bottom layer	1.00	Slope	0.16	Slope	0.16
		Slope	0.16				
SeD3:							
Smithdale	100	Very limited		Somewhat limited		Somewhat limited	
		Seepage, bottom layer	1.00	Slope	0.16	Slope	0.16
		Slope	0.16				
SeE2:							
Smithdale	100	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00	Slope	1.00
		Slope	1.00				
SgD2:							
Smithdale	67	Very limited		Somewhat limited		Somewhat limited	
		Seepage, bottom layer	1.00	Slope	0.37	Slope	0.37
		Slope	0.37				
Lexington	33	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
				Slope	0.16	Slope	0.16
		Slope	0.16				
SgD3:							
Smithdale	67	Very limited		Somewhat limited		Somewhat limited	
		Seepage, bottom layer	1.00	Slope	0.37	Slope	0.37
		Slope	0.37				
Lexington	33	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
				Slope	0.16	Slope	0.16
		Slope	0.16				
SgE2:							
Smithdale	67	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00	Slope	1.00
		Slope	1.00				

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
SgE2:							
Lexington	33	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Seepage	0.52
SgE3:							
Smithdale	67	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00	Slope	1.00
		Slope	1.00				
Lexington	33	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Seepage	0.52
SnD2:							
Smithdale	75	Very limited		Somewhat limited		Somewhat limited	
		Seepage, bottom layer	1.00	Slope	0.16	Slope	0.16
		Slope	0.16				
Luverne	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Too clayey	0.96	Slope	0.16	Too clayey	0.96
		Slope	0.16			Slope	0.16
SnD3:							
Smithdale	75	Very limited		Somewhat limited		Somewhat limited	
		Seepage, bottom layer	1.00	Slope	0.16	Slope	0.16
		Slope	0.16				
Luverne	25	Somewhat limited		Somewhat limited		Very limited	
		Too clayey	0.41	Slope	0.16	Hard to compact	1.00
		Slope	0.16			Too clayey	0.41
						Slope	0.16
SnE2:							
Smithdale	75	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00	Slope	1.00
		Slope	1.00				
Luverne	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	0.96			Too clayey	0.96
SRF:							
Smithdale	65	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00				
Remlik	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
		Too sandy	0.50			Too sandy	0.50

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
SRF:							
Luverne	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	0.30			Hard to compact	1.00
						Too clayey	0.30
SuC:							
Sugargrove	45	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.22
						Content of gravel	0.10
		Slope	0.04	Slope	0.04	Slope	0.04
Sengtown	35	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Slope	0.04	Hard to compact	1.00
		Slope	0.04			Too clayey	1.00
						Content of gravel	0.75
						Slope	0.04
Hawthorne	20	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Content of gravel	1.00
		Seepage, bottom layer	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
				Slope	0.04	Seepage	0.52
		Slope	0.04			Slope	0.04
SuE:							
Sugargrove	45	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	0.96
				Slope	0.96	Seepage	0.22
		Slope	0.96			Content of gravel	0.10
Sengtown	35	Very limited		Very limited		Very limited	
		Too clayey	1.00	Slope	1.00	Hard to compact	1.00
		Slope	1.00			Too clayey	1.00
						Slope	1.00
						Content of gravel	0.75
Hawthorne	20	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Seepage	1.00	Content of gravel	1.00
		Seepage, bottom layer	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
				Slope	1.00	Slope	1.00
		Slope	1.00			Seepage	0.52
TmC:							
Tarklin	65	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	0.04	Slope	0.04	Content of gravel	0.98
						Slope	0.04
Minvale	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.04	Slope	0.04	Content of gravel	0.32
						Slope	0.04
TmE:							
Tarklin	60	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
						Content of gravel	0.93

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TmE:							
Minvale	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Content of gravel	0.32
Ua:							
Udorthents, loamy	100	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
Ud:							
Udorthents, loamy	55	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.52
Urban land	45	Not rated		Not rated		Not rated	
Ur:							
Urban land	92	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 12a.--Construction Materials (Part 1)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of gravel or sand. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Gravel source		Sand source	
		Rating class	Value	Rating class	Value
Ak:					
Arkabutla	93	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ao:					
Arkabutla	57	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rosebloom	43	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ArC2:					
Armour	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
AuE2:					
Arundel	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Chickasaw	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BrB2:					
Brandon	92	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BrC2:					
Brandon	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BrC3:					
Brandon	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CaB2:					
Calloway	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CkA:					
Calloway	56	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Gravel source Rating class	Gravel source Value	Sand source Rating class	Sand source Value
CkA:					
Kurk	38	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cl:					
Cascilla	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cn:					
Chenneby	93	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CVA:					
Chenneby	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Enville	30	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.02
		Thickest layer	0.00	Bottom layer	0.08
Arkabutla	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DaC3:					
Deanburg	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.14
DeB3:					
Deanburg	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.22
DeC2:					
Deanburg	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.22
DnB2:					
Deanburg	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.22
DtB2:					
Dulac	69	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tippah	27	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DtB3:					
Dulac	69	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Gravel source: Rating class	Gravel source: Value	Sand source: Rating class	Sand source: Value
DtB3:					
Tippah	27	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DtC2:					
Dulac	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tippah	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DtC3:					
Dulac	70	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tippah	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DtD2:					
Dulac	53	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tippah	44	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DtD3:					
Dulac	53	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Tippah	44	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ea:					
Enville	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.02
		Thickest layer	0.00	Bottom layer	0.08
Eb:					
Enville	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.02
		Thickest layer	0.00	Bottom layer	0.08
Bibb	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
FaB2:					
Falkner	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Gravel source Rating class	Value	Sand source Rating class	Value
FeA:					
Feliciana	89	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
FeB2:					
Feliciana	92	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
GrA:					
Grenada	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
GrB2:					
Grenada	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HgF:					
Hapludults	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Gullied land	40	Not rated		Not rated	
HtE:					
Hawthorne	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HTF:					
Hawthorne	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Sengtown	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Sugargrove	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HuB:					
Humphreys	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HuC:					
Humphreys	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ik:					
Iuka	89	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Gravel source Rating class	Gravel source Value	Sand source Rating class	Sand source Value
KrA:					
Kurk	94	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LaB2:					
Lax	100	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
LaC2:					
Lax	97	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
LbC3:					
Lax	97	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
LeA:					
Lexington	92	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LeB2:					
Lexington	94	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LeC2:					
Lexington	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LeD2:					
Lexington	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LnB3:					
Lexington	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LnC3:					
Lexington	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LnD3:					
Lexington	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lo:					
Lobelville	93	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Gravel source: Rating class	Gravel source: Value	Sand source: Rating class	Sand source: Value
LrA:					
Loring	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LrB2:					
Loring	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LrC2:					
Loring	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LuE2:					
Luverne	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ng:					
Nugent	100	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.02
		Thickest layer	0.00	Thickest layer	0.07
Ok:					
Ochlockonee	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PaB2:					
Paden	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PaC2:					
Paden	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PaC3:					
Paden	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Pc:					
Pits, clay	100	Not rated		Not rated	
Pg:					
Pits, gravel or sand	100	Not rated		Not rated	
PoA:					
Providence	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PoB2:					
Providence	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Gravel source: Rating class	Gravel source: Value	Sand source: Rating class	Sand source: Value
PoC2:					
Providence----------	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PoD2:					
Providence----------	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PrB3:					
Providence----------	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PrC3:					
Providence----------	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PrD3:					
Providence----------	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Pu:					
Pruitton------------	95	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Re:					
Riverby-------------	55	Fair		Fair	
		Thickest layer	0.15	Thickest layer	0.11
		Bottom layer	0.26	Bottom layer	0.15
Ennis---------------	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RO:					
Rosebloom-----------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Bibb----------------	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RtA:					
Routon--------------	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RuA:					
Routon--------------	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SaC2:					
Saffell-------------	59	Fair		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.58	Bottom layer	0.01

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Gravel source		Sand source	
		Rating class	Value	Rating class	Value
SaC2:					
Brandon	33	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SaE2:					
Saffell	67	Fair		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.58	Bottom layer	0.01
Brandon	33	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SAF:					
Saffell	51	Fair		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.58	Bottom layer	0.01
Smithdale	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Brandon	24	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SeD2:					
Smithdale	100	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
SeD3:					
Smithdale	100	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
SeE2:					
Smithdale	100	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
SgD2:					
Smithdale	67	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Lexington	33	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SgD3:					
Smithdale	67	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Lexington	33	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Gravel source: Rating class	Gravel source: Value	Sand source: Rating class	Sand source: Value
SgE2:					
Smithdale-----------	67	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Lexington-----------	33	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SgE3:					
Smithdale-----------	67	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Lexington-----------	33	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SnD2:					
Smithdale-----------	75	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Luverne-------------	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SnD3:					
Smithdale-----------	75	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Luverne-------------	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SnE2:					
Smithdale-----------	75	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Luverne-------------	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SRF:					
Smithdale-----------	65	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Remlik--------------	20	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.06
		Thickest layer	0.00	Thickest layer	0.26
Luverne-------------	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SuC:					
Sugargrove----------	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Gravel source Rating class	Gravel source Value	Sand source Rating class	Sand source Value
SuC:					
Sengtown	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hawthorne	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SuE:					
Sugargrove	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Sengtown	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hawthorne	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TmC:					
Tarklin	65	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Minvale	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TmE:					
Tarklin	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Minvale	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ua:					
Udorthents, loamy	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ud:					
Udorthents, loamy	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Urban land	45	Not rated		Not rated	
Ur:					
Urban land	92	Not rated		Not rated	
W:					
Water	100	Not rated		Not rated	

Table 12b.--Construction Materials (Part 2)

[Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
Ak:							
Arkabutla	93	Fair		Fair		Fair	
		Too acid	0.50	Wetness	0.09	Wetness	0.09
		Water erosion	0.68	Low strength	0.22	Too acid	0.88
Ao:							
Arkabutla	57	Fair		Fair		Fair	
		Too acid	0.50	Wetness	0.09	Wetness	0.09
		Water erosion	0.68	Low strength	0.22	Too acid	0.88
Rosebloom	43	Fair		Poor		Poor	
		Too acid	0.46	Wetness	0.00	Wetness	0.00
		Water erosion	0.68	Low strength	0.00	Too acid	0.96
ArC2:							
Armour	95	Fair		Poor		Fair	
		Low content of organic matter	0.50	Low strength	0.00	Slope	0.96
		Water erosion	0.68				
		Too acid	0.74				
AuE2:							
Arundel	60	Poor		Poor		Poor	
		Low content of organic matter	0.00	Low strength	0.00	Too clayey	0.00
				Depth to bedrock	0.00	Slope	0.00
		Too clayey	0.00	Shrink-swell	0.00	Depth to bedrock	0.54
		Droughty	0.51				
Chickasaw	35	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Low content of organic matter	0.02	Shrink-swell	0.00	Slope	0.00
				Depth to bedrock	0.04		
		Water erosion	0.37				
BrB2:							
Brandon	92	Fair		Good		Poor	
		Low content of organic matter	0.32			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too clayey	0.65
		Water erosion	0.90			Too acid	0.88
BrC2:							
Brandon	90	Fair		Good		Poor	
		Low content of organic matter	0.32			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too clayey	0.65
		Water erosion	0.90			Too acid	0.88
BrC3:							
Brandon	100	Fair		Good		Poor	
		Low content of organic matter	0.32			Hard to reclaim (rock fragments)	0.00
		Too clayey	0.46			Too clayey	0.33
		Too acid	0.50			Too acid	0.88

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
CaB2:							
Calloway------------	100	Fair		Poor		Poor	
		Low content of organic matter	0.08	Wetness	0.00	Wetness	0.00
		Water erosion	0.37	Low strength	0.00		
		Too acid	0.61				
CkA:							
Calloway------------	56	Fair		Poor		Poor	
		Low content of organic matter	0.08	Wetness	0.00	Wetness	0.00
		Water erosion	0.37	Low strength	0.00		
		Too acid	0.61				
Kurk----------------	38	Fair		Poor		Poor	
		Water erosion	0.06	Wetness	0.00	Wetness	0.00
		Low content of organic matter	0.13	Low strength	0.00	Too acid	0.98
		Too acid	0.54				
Cl:							
Cascilla------------	95	Fair		Poor		Good	
		Too acid	0.32	Low strength	0.00		
		Water erosion	0.90				
Cn:							
Chenneby------------	93	Fair		Poor		Fair	
		Too acid	0.26	Low strength	0.00	Wetness	0.18
		Water erosion	0.68	Wetness	0.18	Too acid	0.82
CVA:							
Chenneby------------	45	Fair		Poor		Fair	
		Too acid	0.26	Low strength	0.00	Wetness	0.18
		Water erosion	0.68	Wetness	0.18	Too acid	0.82
Enville-------------	30	Fair		Fair		Fair	
		Too sandy	0.08	Wetness	0.04	Wetness	0.04
		Too acid	0.46			Too sandy	0.08
		Water erosion	0.68			Too acid	0.96
Arkabutla-----------	20	Fair		Fair		Fair	
		Too acid	0.50	Wetness	0.09	Wetness	0.09
		Water erosion	0.68	Low strength	0.22	Too acid	0.88
DaC3:							
Deanburg------------	95	Fair		Good		Good	
		Low content of organic matter	0.13				
		Too acid	0.74				
DeB3:							
Deanburg------------	95	Fair		Good		Good	
		Low content of organic matter	0.13				
		Too acid	0.74				
DeC2:							
Deanburg------------	95	Fair		Good		Good	
		Low content of organic matter	0.13				
		Too acid	0.74				

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
DnB2:							
Deanburg	95	Fair		Good		Good	
		Low content of organic matter	0.13				
		Too acid	0.74				
		Water erosion	0.90				
DtB2:							
Dulac	69	Fair		Poor		Fair	
		Low content of organic matter	0.02	Low strength	0.00	Wetness	0.04
				Wetness	0.04	Too clayey	0.61
		Water erosion	0.37				
		Too acid	0.50				
Tippah	27	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Low content of organic matter	0.13	Wetness	0.25	Wetness	0.25
				Shrink-swell	0.92	Too acid	0.76
		Too acid	0.50				
DtB3:							
Dulac	69	Fair		Poor		Poor	
		Low content of organic matter	0.02	Wetness	0.00	Wetness	0.00
				Low strength	0.00	Too acid	0.88
		Water erosion	0.37				
		Too acid	0.50				
Tippah	27	Fair		Poor		Fair	
		Low content of organic matter	0.13	Low strength	0.00	Wetness	0.04
				Wetness	0.04	Too acid	0.98
		Water erosion	0.37	Shrink-swell	0.99		
		Too acid	0.50				
DtC2:							
Dulac	70	Fair		Poor		Fair	
		Low content of organic matter	0.02	Low strength	0.00	Wetness	0.04
				Wetness	0.04	Too clayey	0.61
		Water erosion	0.37				
		Too acid	0.50				
Tippah	30	Fair		Poor		Fair	
		Low content of organic matter	0.13	Low strength	0.00	Wetness	0.25
				Wetness	0.25	Too acid	0.98
		Too acid	0.50	Shrink-swell	0.96		
		Water erosion	0.68				
DtC3:							
Dulac	70	Fair		Poor		Poor	
		Low content of organic matter	0.02	Wetness	0.00	Wetness	0.00
				Low strength	0.00	Too acid	0.88
		Water erosion	0.37				
		Too acid	0.50				
Tippah	30	Fair		Poor		Fair	
		Low content of organic matter	0.13	Low strength	0.00	Wetness	0.04
				Wetness	0.04	Too acid	0.98
		Water erosion	0.37	Shrink-swell	0.99		
		Too acid	0.50				

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
DtD2:							
Dulac	53	Fair		Poor		Fair	
		Low content of organic matter	0.02	Low strength	0.00	Wetness	0.04
		Water erosion	0.37	Wetness	0.04	Too clayey	0.61
		Too acid	0.50			Slope	0.84
Tippah	44	Fair		Poor		Fair	
		Low content of organic matter	0.13	Low strength	0.00	Wetness	0.25
		Too acid	0.50	Wetness	0.25	Slope	0.84
		Water erosion	0.68	Shrink-swell	0.96	Too acid	0.98
DtD3:							
Dulac	53	Fair		Poor		Poor	
		Low content of organic matter	0.02	Wetness	0.00	Wetness	0.00
		Water erosion	0.37	Low strength	0.00	Slope	0.84
		Too acid	0.50			Too acid	0.88
Tippah	44	Fair		Poor		Fair	
		Low content of organic matter	0.13	Low strength	0.00	Wetness	0.04
		Water erosion	0.37	Wetness	0.04	Slope	0.84
		Too acid	0.50	Shrink-swell	0.99	Too acid	0.98
Ea:							
Enville	97	Fair		Fair		Fair	
		Too sandy	0.08	Wetness	0.01	Wetness	0.01
		Too acid	0.46			Too sandy	0.08
		Water erosion	0.68			Too acid	0.96
Eb:							
Enville	85	Fair		Fair		Fair	
		Too sandy	0.08	Wetness	0.04	Wetness	0.04
		Too acid	0.46			Too sandy	0.08
		Water erosion	0.68			Too acid	0.96
Bibb	15	Fair		Poor		Poor	
		Too acid	0.54	Wetness	0.00	Wetness	0.00
		Low content of organic matter	0.88			Too acid	0.98
		Water erosion	0.90				
FaB2:							
Falkner	100	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Low content of organic matter	0.13	Wetness	0.01	Wetness	0.01
		Too acid	0.50	Shrink-swell	0.84	Too acid	0.88
FeA:							
Feliciana	89	Fair		Poor		Good	
		Low content of organic matter	0.50	Low strength	0.00		
		Water erosion	0.68				
		Too acid	0.74				

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
FeB2:							
Feliciana	92	Fair		Poor		Good	
		Low content of organic matter	0.50	Low strength	0.00		
		Water erosion	0.68				
		Too acid	0.74				
GrA:							
Grenada	95	Fair		Poor		Fair	
		Low content of organic matter	0.02	Low strength	0.00	Wetness	0.14
				Wetness	0.14	Too acid	0.98
		Water erosion	0.37				
		Too acid	0.54				
GrB2:							
Grenada	100	Fair		Poor		Fair	
		Low content of organic matter	0.02	Low strength	0.00	Wetness	0.14
				Wetness	0.14	Too acid	0.98
		Water erosion	0.37				
		Too acid	0.54				
HgF:							
Hapludults	60	Fair		Fair		Poor	
		Low content of organic matter	0.18	Slope	0.50	Slope	0.00
				Low strength	0.78	Too acid	0.98
		Water erosion	0.37				
		Too acid	0.50				
Gullied land	40	Not rated		Not rated		Not rated	
HtE:							
Hawthorne	100	Fair		Poor		Poor	
		Droughty	0.01	Depth to bedrock	0.00	Rock fragments	0.00
		Low content of organic matter	0.13	Slope	0.68	Slope	0.00
						Too acid	0.88
		Too acid	0.50				
HTF:							
Hawthorne	45	Fair		Poor		Poor	
		Droughty	0.01	Slope	0.00	Rock fragments	0.00
		Low content of organic matter	0.13	Depth to bedrock	0.00	Slope	0.00
						Too acid	0.88
		Too acid	0.50				
Sengtown	30	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Too clayey	0.00
		Low content of organic matter	0.13	Low strength	0.00	Slope	0.00
						Rock fragments	0.00
		Too acid	0.54				
Sugargrove	25	Fair		Poor		Poor	
		Low content of organic matter	0.13	Slope	0.00	Slope	0.00
				Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.35	Low strength	0.78	Depth to bedrock	0.35
		Too acid	0.50				

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
HuB:							
Humphreys	95	Fair		Fair		Poor	
		Low content of organic matter	0.13	Low strength	0.22	Hard to reclaim (rock fragments)	0.00
		Too acid	0.54			Rock fragments	0.01
						Too acid	0.98
HuC:							
Humphreys	95	Fair		Fair		Poor	
		Low content of organic matter	0.13	Low strength	0.22	Hard to reclaim (rock fragments)	0.00
		Too acid	0.54			Rock fragments	0.01
						Slope	0.96
Ik:							
Iuka	89	Fair		Fair		Fair	
		Too acid	0.50	Wetness	0.88	Wetness	0.88
		Low content of organic matter	0.50			Too acid	0.92
		Water erosion	0.68			Too sandy	0.92
KrA:							
Kurk	94	Fair		Poor		Poor	
		Water erosion	0.06	Wetness	0.00	Wetness	0.00
		Low content of organic matter	0.13	Low strength	0.00	Too acid	0.98
		Too acid	0.54				
LaB2:							
Lax	100	Poor		Fair		Poor	
		Droughty	0.00	Wetness	0.07	Hard to reclaim (rock fragments)	0.00
		Low content of organic matter	0.02			Wetness	0.07
		Water erosion	0.37			Too acid	0.88
LaC2:							
Lax	97	Poor		Fair		Poor	
		Droughty	0.00	Wetness	0.07	Hard to reclaim (rock fragments)	0.00
		Low content of organic matter	0.02			Wetness	0.07
		Water erosion	0.37			Too acid	0.88
LbC3:							
Lax	97	Poor		Poor		Poor	
		Droughty	0.00	Wetness	0.00	Wetness	0.00
		Low content of organic matter	0.02			Rock fragments	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
LeA:							
Lexington	92	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too clayey	0.60
		Too acid	0.54				
		Water erosion	0.90				

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
LeB2:							
Lexington-----------	94	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too clayey	0.60
		Too acid	0.54				
		Water erosion	0.90				
LeC2:							
Lexington-----------	95	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too clayey	0.60
		Too acid	0.54				
		Water erosion	0.90				
LeD2:							
Lexington-----------	97	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too clayey	0.60
						Slope	0.84
		Too acid	0.54				
		Water erosion	0.90				
LnB3:							
Lexington-----------	95	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too clayey	0.50
		Too acid	0.54				
		Too clayey	0.82				
LnC3:							
Lexington-----------	95	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too clayey	0.50
		Too acid	0.54				
		Too clayey	0.82				
LnD3:							
Lexington-----------	97	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too clayey	0.50
						Slope	0.84
		Too acid	0.54				
		Too clayey	0.82				
Lo:							
Lobelville----------	93	Fair		Fair		Poor	
		Low content of organic matter	0.13	Wetness	0.02	Rock fragments	0.00
						Wetness	0.02
		Too acid	0.54			Hard to reclaim (rock fragments)	0.84
LrA:							
Loring--------------	90	Fair		Fair		Fair	
		Low content of organic matter	0.13	Wetness	0.44	Wetness	0.44
		Water erosion	0.37				
		Too acid	0.54				

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
LrB2:							
Loring	95	Fair		Fair		Fair	
		Low content of organic matter	0.13	Wetness	0.44	Wetness	0.44
		Water erosion	0.37				
		Too acid	0.54				
LrC2:							
Loring	100	Fair		Fair		Fair	
		Low content of organic matter	0.13	Wetness	0.44	Wetness	0.44
		Water erosion	0.37				
		Too acid	0.54				
LuE2:							
Luverne	100	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Low content of organic matter	0.02	Slope	0.82	Slope	0.00
				Shrink-swell	0.96	Too acid	0.92
		Too acid	0.21				
Ng:							
Nugent	100	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.04
		Too sandy	0.04				
		Low content of organic matter	0.50				
Ok:							
Ochlockonee	100	Fair		Good		Good	
		Too acid	0.61				
		Low content of organic matter	0.88				
PaB2:							
Paden	100	Poor		Poor		Fair	
		Low content of organic matter	0.00	Low strength	0.00	Wetness	0.02
				Wetness	0.02	Too acid	0.96
		Too acid	0.50				
		Water erosion	0.68				
PaC2:							
Paden	100	Poor		Poor		Fair	
		Low content of organic matter	0.00	Low strength	0.00	Wetness	0.02
				Wetness	0.02	Too acid	0.96
		Too acid	0.50			Slope	0.96
		Water erosion	0.68				
PaC3:							
Paden	100	Poor		Poor		Fair	
		Low content of organic matter	0.00	Low strength	0.00	Wetness	0.02
				Wetness	0.02	Slope	0.96
		Too acid	0.50				
		Water erosion	0.68				
Pc:							
Pits, clay	100	Not rated		Not rated		Not rated	
Pg:							
Pits, gravel or sand	100	Not rated		Not rated		Not rated	

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
PoA:							
Providence----------	97	Fair		Poor		Fair	
		Low content of organic matter	0.02	Low strength	0.00	Wetness	0.25
				Wetness	0.25	Too acid	0.98
		Water erosion	0.37				
		Too acid	0.54				
PoB2:							
Providence----------	100	Fair		Poor		Fair	
		Low content of organic matter	0.02	Low strength	0.00	Wetness	0.02
				Wetness	0.02	Too acid	0.98
		Water erosion	0.37				
		Too acid	0.54				
PoC2:							
Providence----------	100	Fair		Poor		Fair	
		Low content of organic matter	0.02	Low strength	0.00	Wetness	0.02
				Wetness	0.02	Too acid	0.98
		Water erosion	0.37				
		Too acid	0.54				
PoD2:							
Providence----------	100	Fair		Poor		Fair	
		Low content of organic matter	0.02	Low strength	0.00	Wetness	0.02
				Wetness	0.02	Slope	0.37
		Water erosion	0.37			Too acid	0.98
		Too acid	0.54				
PrB3:							
Providence----------	100	Fair		Poor		Poor	
		Low content of organic matter	0.02	Wetness	0.00	Wetness	0.00
				Low strength	0.00	Too acid	0.98
		Too acid	0.54				
		Water erosion	0.68				
PrC3:							
Providence----------	100	Fair		Poor		Poor	
		Low content of organic matter	0.02	Wetness	0.00	Wetness	0.00
				Low strength	0.00	Too acid	0.98
		Too acid	0.54				
		Water erosion	0.68				
PrD3:							
Providence----------	100	Fair		Poor		Poor	
		Low content of organic matter	0.02	Wetness	0.00	Wetness	0.00
				Low strength	0.00	Slope	0.84
		Too acid	0.54			Too acid	0.98
		Water erosion	0.68				
Pu:							
Pruitton------------	95	Fair		Good		Fair	
		Too acid	0.50			Hard to reclaim (rock fragments)	0.92
		Low content of organic matter	0.50				
						Too acid	0.98
		Water erosion	0.90				

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
Re:							
Riverby	55	Poor		Good		Poor	
		Droughty	0.00			Hard to reclaim (rock fragments)	0.00
		Too sandy	0.00			Rock fragments	0.00
		Low content of organic matter	0.13			Too sandy	0.00
Ennis	45	Fair		Good		Poor	
		Low content of organic matter	0.13			Rock fragments	0.00
		Too acid	0.54			Hard to reclaim (rock fragments)	0.00
						Too acid	0.98
RO:							
Rosebloom	85	Fair		Poor		Poor	
		Too acid	0.46	Wetness	0.00	Wetness	0.00
		Water erosion	0.68	Low strength	0.00	Too acid	0.96
Bibb	15	Fair		Poor		Poor	
		Too acid	0.54	Wetness	0.00	Wetness	0.00
		Low content of organic matter	0.88			Too acid	0.98
		Water erosion	0.90				
RtA:							
Routon	100	Fair		Poor		Poor	
		Water erosion	0.06	Wetness	0.00	Wetness	0.00
		Too acid	0.32	Low strength	0.00	Too acid	0.88
RuA:							
Routon	100	Fair		Poor		Poor	
		Water erosion	0.06	Wetness	0.00	Wetness	0.00
		Too acid	0.32	Low strength	0.00	Too acid	0.88
SaC2:							
Saffell	59	Fair		Good		Poor	
		Too acid	0.32			Rock fragments	0.00
		Low content of organic matter	0.32			Hard to reclaim (rock fragments)	0.05
						Slope	0.84
Brandon	33	Fair		Good		Poor	
		Low content of organic matter	0.32			Hard to reclaim (rock fragments)	0.00
		Too acid	0.50			Too clayey	0.65
		Water erosion	0.90			Slope	0.84
SaE2:							
Saffell	67	Fair		Good		Poor	
		Too acid	0.32			Rock fragments	0.00
		Low content of organic matter	0.32			Slope	0.00
						Hard to reclaim (rock fragments)	0.05
Brandon	33	Fair		Good		Poor	
		Low content of organic matter	0.32			Slope	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
		Water erosion	0.90			Too clayey	0.65

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
SAF:							
Saffell	51	Fair		Poor		Poor	
		Too acid	0.32	Slope	0.00	Rock fragments	0.00
		Low content of organic matter	0.32			Slope	0.00
						Hard to reclaim (rock fragments)	0.05
Smithdale	25	Fair		Poor		Poor	
		Low content of organic matter	0.08	Slope	0.00	Slope	0.00
		Too acid	0.32	Low strength	0.00	Too acid	0.88
		Water erosion	0.68				
Brandon	24	Fair		Poor		Poor	
		Low content of organic matter	0.32	Slope	0.00	Slope	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.00
		Water erosion	0.90			Too clayey	0.65
SeD2:							
Smithdale	100	Fair		Poor		Fair	
		Low content of organic matter	0.08	Low strength	0.00	Slope	0.84
		Too acid	0.32			Too acid	0.88
		Water erosion	0.68				
SeD3:							
Smithdale	100	Fair		Poor		Fair	
		Low content of organic matter	0.08	Low strength	0.00	Slope	0.84
		Too acid	0.32			Too acid	0.88
		Water erosion	0.90				
SeE2:							
Smithdale	100	Fair		Poor		Poor	
		Low content of organic matter	0.08	Low strength	0.00	Slope	0.00
		Too acid	0.32	Slope	0.68	Too acid	0.88
		Water erosion	0.68				
SgD2:							
Smithdale	67	Fair		Poor		Fair	
		Low content of organic matter	0.08	Low strength	0.00	Slope	0.63
		Too acid	0.32			Too acid	0.88
		Water erosion	0.68				
Lexington	33	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too clayey	0.60
		Too acid	0.54			Slope	0.84
		Water erosion	0.90				
SgD3:							
Smithdale	67	Fair		Poor		Fair	
		Low content of organic matter	0.08	Low strength	0.00	Slope	0.63
		Too acid	0.32			Too acid	0.88
		Water erosion	0.90				

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
SgD3:							
Lexington	33	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too clayey	0.50
		Too acid	0.54			Slope	0.84
		Too clayey	0.82				
SgE2:							
Smithdale	67	Fair		Poor		Poor	
		Low content of organic matter	0.08	Low strength	0.00	Slope	0.00
		Too acid	0.32	Slope	0.68	Too acid	0.88
		Water erosion	0.68				
Lexington	33	Fair		Fair		Poor	
		Low content of organic matter	0.18	Low strength	0.78	Slope	0.00
		Too acid	0.54			Too clayey	0.60
		Water erosion	0.90				
SgE3:							
Smithdale	67	Fair		Poor		Poor	
		Low content of organic matter	0.08	Low strength	0.00	Slope	0.00
		Too acid	0.32	Slope	0.68	Too acid	0.88
		Water erosion	0.90				
Lexington	33	Fair		Fair		Poor	
		Low content of organic matter	0.18	Low strength	0.78	Slope	0.00
		Too acid	0.54			Too clayey	0.50
		Too clayey	0.82				
SnD2:							
Smithdale	75	Fair		Poor		Fair	
		Low content of organic matter	0.08	Low strength	0.00	Slope	0.84
		Too acid	0.32			Too acid	0.88
		Water erosion	0.68				
Luverne	25	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Low content of organic matter	0.02	Shrink-swell	0.96	Slope	0.84
		Too acid	0.21			Too acid	0.92
SnD3:							
Smithdale	75	Fair		Poor		Fair	
		Low content of organic matter	0.08	Low strength	0.00	Slope	0.84
		Too acid	0.32			Too acid	0.88
		Water erosion	0.68				
Luverne	25	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Too acid	0.12			Too acid	0.60
		Low content of organic matter	0.13			Slope	0.84

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
SnE2:							
Smithdale	75	Fair		Poor		Poor	
		Low content of organic matter	0.08	Low strength	0.00	Slope	0.00
				Slope	0.68	Too acid	0.88
		Too acid	0.32				
		Water erosion	0.68				
Luverne	25	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Low content of organic matter	0.02	Slope	0.82	Slope	0.00
				Shrink-swell	0.96	Too acid	0.92
		Too acid	0.21				
SRF:							
Smithdale	65	Fair		Poor		Poor	
		Low content of organic matter	0.08	Slope	0.00	Slope	0.00
				Low strength	0.00	Too acid	0.88
		Too acid	0.32				
		Water erosion	0.68				
Remlik	20	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.11			Too sandy	0.11
		Low content of organic matter	0.13			Too acid	0.76
Luverne	15	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Low content of organic matter	0.13			Too clayey	0.00
						Too acid	0.92
		Too acid	0.21				
SuC:							
Sugargrove	45	Fair		Poor		Poor	
		Low content of organic matter	0.13	Depth to bedrock	0.00	Rock fragments	0.00
				Low strength	0.78	Depth to bedrock	0.35
		Depth to bedrock	0.35			Too acid	0.88
		Too acid	0.50				
Sengtown	35	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Low content of organic matter	0.13			Rock fragments	0.00
						Hard to reclaim (rock fragments)	0.18
		Too acid	0.54				
Hawthorne	20	Fair		Poor		Poor	
		Droughty	0.01	Depth to bedrock	0.00	Rock fragments	0.00
		Low content of organic matter	0.13			Too acid	0.88
						Depth to bedrock	0.93
		Too acid	0.50				
SuE:							
Sugargrove	45	Fair		Poor		Poor	
		Low content of organic matter	0.13	Depth to bedrock	0.00	Rock fragments	0.00
				Low strength	0.78	Slope	0.04
		Depth to bedrock	0.35			Depth to bedrock	0.35
		Too acid	0.50				

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as source of reclamation material: Rating class and limiting features	Value	Potential as source of roadfill: Rating class and limiting features	Value	Potential as source of topsoil: Rating class and limiting features	Value
SuE:							
Sengtown	35	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Low content of organic matter	0.13	Slope	0.32	Rock fragments	0.00
		Too acid	0.54			Slope	0.00
Hawthorne	20	Fair		Poor		Poor	
		Droughty	0.01	Depth to bedrock	0.00	Rock fragments	0.00
		Low content of organic matter	0.13	Slope	0.50	Slope	0.00
		Too acid	0.50			Too acid	0.88
TmC:							
Tarklin	65	Fair		Fair		Poor	
		Droughty	0.01	Wetness	0.04	Rock fragments	0.00
		Low content of organic matter	0.13			Hard to reclaim (rock fragments)	0.00
		Water erosion	0.37			Wetness	0.04
Minvale	35	Fair		Good		Poor	
		Low content of organic matter	0.13			Rock fragments	0.00
		Too acid	0.50			Hard to reclaim (rock fragments)	0.50
						Too acid	0.96
TmE:							
Tarklin	60	Poor		Fair		Poor	
		Droughty	0.00	Wetness	0.04	Rock fragments	0.00
		Water erosion	0.06	Slope	0.32	Hard to reclaim (rock fragments)	0.00
		Low content of organic matter	0.13			Slope	0.00
Minvale	40	Fair		Fair		Poor	
		Low content of organic matter	0.13	Slope	0.98	Rock fragments	0.00
		Too acid	0.50			Slope	0.00
						Hard to reclaim (rock fragments)	0.50
Ua:							
Udorthents, loamy	100	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too acid	0.98
		Too acid	0.54				
Ud:							
Udorthents, loamy	55	Fair		Fair		Fair	
		Low content of organic matter	0.18	Low strength	0.78	Too acid	0.98
		Too acid	0.54				
Urban land	45	Not rated		Not rated		Not rated	
Ur:							
Urban land	92	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 13.--Water Management

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
Ak:							
Arkabutla	93	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
				Piping	0.94	Unstable excavation walls	0.10
Ao:							
Arkabutla	57	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
				Piping	0.94	Unstable excavation walls	0.10
Rosebloom	43	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
				Piping	0.71	Unstable excavation walls	0.10
ArC2:							
Armour	95	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.23	Depth to water	1.00
		Seepage	0.72				
AuE2:							
Arundel	60	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Hard to pack	0.92	Depth to water	1.00
		Depth to bedrock	0.12	Thin layer	0.87		
Chickasaw	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Hard to pack	0.91	Depth to water	1.00
		Depth to bedrock	0.01	Thin layer	0.37		
BrB2:							
Brandon	92	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.04	Depth to water	1.00
		Slope	0.08				
BrC2:							
Brandon	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.04	Depth to water	1.00
		Slope	1.00				
BrC3:							
Brandon	100	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.01	Depth to water	1.00
		Slope	1.00				
CaB2:							
Calloway	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Piping	0.15		

Table 13.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
CkA:							
Calloway	56	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.15		
Kurk	38	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.22		
Cl:							
Cascilla	95	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.98	Depth to water	1.00
Cn:							
Chenneby	93	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Unstable excavation walls	1.00
				Piping	0.86	Slow refill	0.28
CVA:							
Chenneby	45	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Unstable excavation walls	1.00
				Piping	0.86	Slow refill	0.28
Enville	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Unstable excavation walls	1.00
				Seepage	0.24		
Arkabutla	20	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
				Piping	0.94	Unstable excavation walls	0.10
DaC3:							
Deanburg	95	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.32	Depth to water	1.00
		Slope	0.92				
DeB3:							
Deanburg	95	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.08				
DeC2:							
Deanburg	95	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.92				
DnB2:							
Deanburg	95	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.08				
DtB2:							
Dulac	69	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.04				

Table 13.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
DtB2:							
Tippah	27	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08				
DtB3:							
Dulac	69	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.04				
Tippah	27	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08				
DtC2:							
Dulac	70	Somewhat limited		Very limited		Very limited	
		Slope	0.92	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.04				
Tippah	30	Somewhat limited		Very limited		Very limited	
		Slope	0.92	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.72				
DtC3:							
Dulac	70	Somewhat limited		Very limited		Very limited	
		Slope	0.92	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.04				
Tippah	30	Somewhat limited		Very limited		Very limited	
		Slope	0.92	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.72				
DtD2:							
Dulac	53	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.04				
Tippah	44	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.72				
DtD3:							
Dulac	53	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.04				
Tippah	44	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.72				
Ea:							
Enville	97	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Unstable excavation walls	1.00
				Seepage	0.24		
Eb:							
Enville	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Unstable excavation walls	1.00
				Seepage	0.24		

Table 13.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
Eb:							
Bibb	15	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Unstable excavation walls	1.00
				Piping	1.00	Slow refill	0.28
FaB2:							
Falkner	100	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.04				
FeA:							
Feliciana	89	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.37	Depth to water	1.00
FeB2:							
Feliciana	92	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.72	Piping	0.32	Depth to water	1.00
		Slope	0.08				
GrA:							
Grenada	95	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.69		
GrB2:							
Grenada	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08				
HgF:							
Hapludults	60	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.94	Depth to water	1.00
		Slope	1.00				
Gullied land	40	Not rated		Not rated		Not rated	
HtE:							
Hawthorne	100	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.66	Depth to water	1.00
		Slope	1.00	Seepage	0.11		
		Depth to bedrock	0.03				
HTF:							
Hawthorne	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.66	Depth to water	1.00
		Slope	1.00	Seepage	0.11		
		Depth to bedrock	0.03				
Sengtown	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Hard to pack	0.86	Depth to water	1.00
		Seepage	0.72				
Sugargrove	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.91	Depth to water	1.00
		Seepage	1.00	Piping	0.17		
		Depth to bedrock	0.17				

Table 13.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
HuB:							
Humphreys	95	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	0.08				
HuC:							
Humphreys	95	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	1.00				
Ik:							
Iuka	89	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Piping	1.00	Slow refill	0.28
				Depth to saturated zone	0.87	Unstable excavation walls	0.10
						Depth to saturated zone	0.06
KrA:							
Kurk	94	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.22		
LaB2:							
Lax	100	Somewhat limited		Very limited		Very limited	
		Slope	0.08	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.17		
LaC2:							
Lax	97	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.17		
LbC3:							
Lax	97	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
LeA:							
Lexington	92	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.32	Depth to water	1.00
LeB2:							
Lexington	94	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.45	Depth to water	1.00
		Slope	0.08				
LeC2:							
Lexington	95	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.45	Depth to water	1.00
		Slope	0.68				
LeD2:							
Lexington	97	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.45	Depth to water	1.00
		Slope	1.00				

Table 13.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
LnB3:							
Lexington	95	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.32	Depth to water	1.00
		Slope	0.08				
LnC3:							
Lexington	95	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.32	Depth to water	1.00
		Slope	0.92				
LnD3:							
Lexington	97	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.32	Depth to water	1.00
		Slope	1.00				
Lo:							
Lobelville	93	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Unstable excavation walls	1.00
LrA:							
Loring	90	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.63		
LrB2:							
Loring	95	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08				
				Piping	0.55		
LrC2:							
Loring	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.68				
				Piping	0.55		
LuE2:							
Luverne	100	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	0.04				
Ng:							
Nugent	100	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Ok:							
Ochlockonee	100	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
PaB2:							
Paden	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.26		

Table 13.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
PaC2:							
Paden	100	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.72	Piping	0.26		
PaC3:							
Paden	100	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.72	Piping	0.24		
Pc:							
Pits, clay	100	Not rated		Not rated		Not rated	
Pg:							
Pits, gravel or sand	100	Not rated		Not rated		Not rated	
PoA:							
Providence	97	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.41		
PoB2:							
Providence	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.32	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Piping	0.38		
PoC2:							
Providence	100	Somewhat limited		Very limited		Very limited	
		Slope	0.92	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.32	Piping	0.38		
PoD2:							
Providence	100	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.32	Piping	0.38		
PrB3:							
Providence	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.32	Depth to saturated zone	1.00	Depth to water	1.00
		Slope	0.08	Piping	0.24		
PrC3:							
Providence	100	Somewhat limited		Very limited		Very limited	
		Slope	0.92	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.32	Piping	0.24		
PrD3:							
Providence	100	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.32	Piping	0.24		

Table 13.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
Pu:							
Pruitton	95	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.81	Depth to water	1.00
Re:							
Riverby	55	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Depth to water	1.00
Ennis	45	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
RO:							
Rosebloom	85	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
				Piping	0.71	Unstable excavation walls	0.10
Bibb	15	Somewhat limited		Very limited		Very limited	
		Seepage	0.72	Depth to saturated zone	1.00	Unstable excavation walls	1.00
				Piping	1.00	Slow refill	0.28
RtA:							
Routon	100	Not limited		Very limited		Somewhat limited	
				Depth to saturated zone	1.00	Slow refill	0.30
				Piping	0.72	Unstable excavation walls	0.10
RuA:							
Routon	100	Not limited		Very limited		Somewhat limited	
				Ponding	1.00	Slow refill	0.30
				Depth to saturated zone	1.00	Unstable excavation walls	0.10
				Piping	0.72		
SaC2:							
Saffell	59	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.63	Depth to water	1.00
		Slope	1.00				
Brandon	33	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.04	Depth to water	1.00
		Slope	1.00				
SaE2:							
Saffell	67	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.63	Depth to water	1.00
		Slope	1.00				
Brandon	33	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.04	Depth to water	1.00
		Slope	1.00				
SAF:							
Saffell	51	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.63	Depth to water	1.00
		Slope	1.00				
Smithdale	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.39	Depth to water	1.00
		Slope	1.00				

Table 13.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
SAF:							
Brandon	24	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.04	Depth to water	1.00
		Slope	1.00				
SeD2:							
Smithdale	100	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.39	Depth to water	1.00
		Slope	1.00				
SeD3:							
Smithdale	100	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.31	Depth to water	1.00
		Slope	1.00				
SeE2:							
Smithdale	100	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.39	Depth to water	1.00
		Slope	1.00				
SgD2:							
Smithdale	67	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.39	Depth to water	1.00
		Slope	1.00				
Lexington	33	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.45	Depth to water	1.00
		Slope	1.00				
SgD3:							
Smithdale	67	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.31	Depth to water	1.00
		Slope	1.00				
Lexington	33	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.32	Depth to water	1.00
		Slope	1.00				
SgE2:							
Smithdale	67	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.39	Depth to water	1.00
		Slope	1.00				
Lexington	33	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.45	Depth to water	1.00
		Slope	1.00				
SgE3:							
Smithdale	67	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.31	Depth to water	1.00
		Slope	1.00				
Lexington	33	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.32	Depth to water	1.00
		Slope	1.00				
SnD2:							
Smithdale	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.39	Depth to water	1.00
		Slope	1.00				

Table 13.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
SnD2:							
Luverne	25	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	0.04				
SnD3:							
Smithdale	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.31	Depth to water	1.00
		Slope	1.00				
Luverne	25	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	0.04				
SnE2:							
Smithdale	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.39	Depth to water	1.00
		Slope	1.00				
Luverne	25	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	0.04				
SRF:							
Smithdale	65	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.39	Depth to water	1.00
		Slope	1.00				
Remlik	20	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
		Slope	1.00				
Luverne	15	Very limited		Not limited		Very limited	
		Slope	1.00			Depth to water	1.00
		Seepage	0.04				
SuC:							
Sugargrove	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.91	Depth to water	1.00
		Seepage	1.00	Piping	0.17		
		Depth to bedrock	0.17				
Sengtown	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Hard to pack	0.86	Depth to water	1.00
		Seepage	0.72				
Hawthorne	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.66	Depth to water	1.00
		Slope	1.00	Seepage	0.11		
		Depth to bedrock	0.03				
SuE:							
Sugargrove	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Thin layer	0.91	Depth to water	1.00
		Seepage	1.00	Piping	0.17		
		Depth to bedrock	0.17				
Sengtown	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Hard to pack	0.86	Depth to water	1.00
		Seepage	0.72				

Table 13.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
SuE:							
Hawthorne	20	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Thin layer	0.66	Depth to water	1.00
		Slope	1.00	Seepage	0.11		
		Depth to bedrock	0.03				
TmC:							
Tarklin	65	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
		Seepage	0.03				
Minvale	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.42	Depth to water	1.00
		Seepage	0.72				
TmE:							
Tarklin	60	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Depth to water	1.00
Minvale	40	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Piping	0.28	Depth to water	1.00
		Seepage	0.72				
Ua:							
Udorthents, loamy	100	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.92	Depth to water	1.00
Ud:							
Udorthents, loamy	55	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.92	Depth to water	1.00
Urban land	45	Not rated		Not rated		Not rated	
Ur:							
Urban land	92	Not rated		Not rated		Not rated	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 14.--Engineering Properties

[Absence of an entry indicates that the data were not estimated]

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas-ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
Ak:												
Arkabutla-------	0-7	Silt loam	CL	A-6	0	0	100	100	89-100	80-100	21-38	6-18
	7-36	Silt loam, silty clay loam, loam	CL	A-6	0	0	100	100	91-100	87-100	31-50	13-24
	36-79	Silt loam	CL	A-4	0	0	100	100	89-100	80-100	18-40	2-17
Ao:												
Arkabutla-------	0-7	Silt loam	CL	A-6	0	0	100	100	89-100	80-100	21-38	6-18
	7-36	Silt loam, silty clay loam, loam	CL	A-6	0	0	100	100	91-100	87-100	31-50	13-24
	36-79	Silt loam	CL	A-4	0	0	100	100	89-100	80-100	18-40	2-17
Rosebloom-------	0-6	Silt loam, silty clay loam	CL	A-6	0	0	100	100	91-100	88-100	30-50	12-24
	6-60	Silt loam, silty clay loam	CL	A-6	0	0	100	100	90-100	90-95	28-45	12-24
	60-79	Fine sandy loam	CL	A-6	0	0	100	100	95-100	90-100	23-32	7-13
ArC2:												
Armour----------	0-6	Silt loam	CL	A-6	0	0	90-100	67-100	64-100	59-100	27-43	9-18
	6-79	Silt loam, silty clay loam	CL	A-6	0	0	85-100	54-100	50-100	48-100	28-51	12-28
AuE2:												
Arundel---------	0-2	Fine sandy loam	SC	A-4	0	0	100	100	86-99	36-49	19-34	3-13
	2-30	Clay, channery clay loam, clay loam	CH	A-7-6	0	0	100	100	82-100	72-100	49-75	29-48
	30-79	Bedrock	---	---	---	---	---	---	---	---	---	---
Chickasaw-------	0-3	Silt loam	CL, CL-ML, ML	A-6	0	0	100	100	82-100	78-100	20-52	4-29
	3-6	Silt loam	CL	A-6	0	0	100	100	84-100	80-100	19-52	4-29
	6-23	Silty clay, clay loam, clay	CH	A-7-6	0	0	100	100	91-100	81-100	45-67	25-40
	23-42	Clay, silty clay	CH	A-7-6	0	0	100	100	73-100	65-95	50-81	29-52
	42-79	Bedrock	---	---	---	---	---	---	---	---	---	---

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
BrB2:												
Brandon---------	0-1	Silt loam	CL, CL-ML	A-6	0	0	100	100	90-100	88-100	24-40	7-18
	1-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	84-100	81-98	29-47	12-24
	29-36	Gravelly silt loam, gravelly loam	CL, SC-SM, GC-GM	A-6	0	0-10	55-74	53-73	44-68	39-61	27-37	12-18
	36-79	Very gravelly loam, very gravelly silt loam	GC, SC-SM, GC-GM	A-2-6	0	0-8	50-90	15-80	13-80	10-72	27-44	12-24
BrC2:												
Brandon---------	0-1	Silt loam	CL, CL-ML	A-6	0	0	100	100	90-100	88-100	24-40	7-18
	1-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	84-100	81-98	29-47	12-24
	29-36	Gravelly silt loam, gravelly loam	CL, SC-SM, GC-GM	A-6	0	0-10	55-74	53-73	44-68	39-61	27-37	12-18
	36-79	Very gravelly loam, very gravelly silt loam	GC, SC-SM, GC-GM	A-2-6	0	0-8	50-90	15-80	13-80	10-72	27-44	12-24
BrC3:												
Brandon---------	0-4	Silty clay loam	CL	A-6	0	0	100	100	97-100	93-100	38-47	18-24
	4-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	83-100	80-100	29-52	12-28
	29-36	Gravelly silt loam, gravelly loam	CL, SC-SM, GC-GM	A-6	0	0-10	55-74	53-73	44-68	39-61	27-37	12-18
	36-79	Very gravelly loam, very gravelly silt loam	GC, SC-SM, GC-GM	A-2-6	0	0-8	50-90	15-80	13-80	10-72	27-44	12-24
CaB2:												
Calloway--------	0-6	Silt loam	CL	A-6	0	0	100	100	100	90-100	22-40	6-18
	6-21	Silt loam	CL	A-6	0	0	100	100	100	90-100	22-40	6-18
	21-79	Silt loam, silty clay loam	CL	A-6	0	0	100	100	100	90-95	21-42	6-22
CkA:												
Calloway--------	0-6	Silt loam	CL	A-6	0	0	100	100	100	90-100	22-40	6-18
	6-21	Silt loam	CL	A-6	0	0	100	100	100	90-100	22-40	6-18
	21-79	Silt loam, silty clay loam	CL	A-6	0	0	100	100	100	90-95	21-42	6-22
Kurk------------	0-7	Silt loam	CL	A-4	0	0	100	100	95-100	85-95	24-38	7-15
	7-21	Silt loam, silt	CL	A-4	0	0	100	100	95-100	85-95	0-34	NP-15
	21-56	Silty clay loam, silt loam	CL	A-6	0	0	100	100	95-100	85-95	34-45	17-25
	56-79	Silt loam, loam	CL, CL-ML	A-6	0	0	100	100	90-100	70-95	25-40	9-21

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Cl:												
Cascilla--------	0-8	Silt loam	CL-ML	A-4	0	0	100	100	95-100	75-95	20-36	2-13
	8-65	Silt loam	CL	A-6	0	0	100	100	95-100	75-100	18-45	2-21
	65-79	Fine sandy loam, loam, silt loam	SC	A-4	0	0	100	100	80-95	20-57	18-40	2-17
Cn:												
Chenneby--------	0-8	Silt loam	CL, ML	A-6	0	0	100	100	92-100	85-100	23-43	7-18
	8-57	Silt loam, loam, silty clay loam	CL	A-6	0	0	100	100	88-100	84-100	23-49	7-24
	57-79	Stratified loamy sand to fine sandy loam to loam to silt loam	CL-ML	A-4	0	0	100	100	83-96	49-62	0-33	NP-10
CVA:												
Chenneby--------	0-8	Silt loam	CL, ML	A-6	0	0	100	100	92-100	85-100	23-43	7-18
	8-57	Silt loam, loam, silty clay loam	CL	A-6	0	0	100	100	88-100	84-100	23-49	7-24
	57-79	Stratified loamy sand to fine sandy loam to loam to silt loam	CL-ML	A-4	0	0	100	100	83-96	49-62	0-33	NP-10
Enville---------	0-5	Silt loam	CL, CL-ML	A-4	0	0	100	100	79-100	65-92	0-41	NP-19
	5-13	Silt loam	CL	A-4	0	0	100	100	84-98	68-82	17-35	2-12
	13-45	Stratified sand to loamy sand to sandy loam	SC-SM	A-2-4	0	0	100	100	82-89	31-38	17-28	2-7
	45-79	Gravelly loamy sand, sand	SM	A-2-4	0	0	80-100	65-85	35-62	9-22	0-32	NP-11
Arkabutla-------	0-7	Silt loam	CL	A-6	0	0	100	100	89-100	80-100	21-38	6-18
	7-36	Silt loam, silty clay loam, loam	CL	A-6	0	0	100	100	91-100	87-100	31-50	13-24
	36-79	Silt loam	CL	A-4	0	0	100	100	89-100	80-100	18-40	2-17
DaC3:												
Deanburg--------	0-6	Clay loam	CL	A-6	0	0	100	100	80-100	40-80	21-45	6-25
	6-30	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	73-93	35-55	25-45	9-25
	30-79	Loamy sand, sand	SM	A-2-4	0	0	100	100	50-75	11-30	0-22	NP-6
DeB3:												
Deanburg--------	0-3	Loam, silt loam	CL	A-6	0	0	100	100	80-100	40-80	25-38	9-19
	3-23	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-95	40-80	25-45	9-25
	23-30	Sandy loam, loamy sand	SC-SM, SP-SM	A-2-4	0	0	100	100	50-75	11-30	0-26	NP-9
	30-79	Loamy sand	SM	A-2-4	0	0	100	100	70-90	10-30	0-24	NP-7

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
DeC2:												
Deanburg--------	0-3	Loam, silt loam	CL	A-6	0	0	100	100	80-100	40-80	25-38	9-19
	3-23	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-95	40-80	25-45	9-25
	23-30	Sandy loam, loamy sand	SC-SM, SP-SM	A-2-4	0	0	100	100	50-75	11-30	0-26	NP-9
	30-79	Loamy sand	SM	A-2-4	0	0	100	100	70-90	10-30	0-24	NP-7
DnB2:												
Deanburg--------	0-6	Silt loam, loam	CL	A-6	0	0	100	100	80-100	40-80	21-36	6-17
	6-32	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-95	40-80	25-45	9-25
	32-40	Sandy loam, loamy sand	SC-SM, SP-SM	A-2-4	0	0	100	100	50-75	11-30	0-26	NP-9
	40-79	Loamy sand	SM	A-2-4	0	0	100	100	70-90	10-30	0-24	NP-7
DtB2:												
Dulac-----------	0-5	Silt loam	CL	A-6	0	0	100	100	90-100	85-95	23-40	7-18
	5-19	Silty clay loam, silt loam	CL	A-6	0	0	100	100	90-100	85-95	28-45	12-24
	19-30	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-100	92-100	28-44	12-25
	30-33	Silty clay loam, clay loam, silt loam	CL	A-7-6	0	0	100	95-100	90-100	85-95	29-44	13-25
	33-64	Clay, silty clay	CH	A-7-6	0	0	85-100	85-100	73-100	62-87	47-63	28-40
	64-79	Bedrock	---	---	---	---	---	---	---	---	---	---
Tippah----------	0-5	Silt loam	CL	A-6	0	0	100	100	90-100	70-90	23-48	7-24
	5-20	Silty clay loam, silt loam	CL	A-6	0	0	100	98-100	90-100	85-95	22-45	7-25
	20-79	Clay, silty clay loam, silty clay	CH	A-7-6	0	0	100	99-100	80-100	60-95	43-65	25-40
DtB3:												
Dulac-----------	0-3	Silt loam	CL	A-6	0	0	100	100	88-100	84-95	23-47	7-24
	3-15	Silty clay loam, silt loam	CL	A-6	0	0	100	100	90-100	85-95	28-45	12-24
	15-30	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-100	92-100	28-44	12-25
	30-33	Silty clay loam, clay loam, silt loam	CL	A-7-6	0	0	100	95-100	90-100	85-95	29-44	13-25
	33-64	Clay, silty clay	CH	A-7-6	0	0	85-100	85-100	73-100	62-87	47-63	28-40
	64-79	Bedrock	---	---	---	---	---	---	---	---	---	---
Tippah----------	0-3	Silt loam	CL	A-6	0	0	100	100	90-100	70-90	23-48	7-24
	3-34	Silty clay loam, silt loam	CL	A-6	0	0	100	98-100	90-100	85-95	22-45	7-25
	34-79	Clay, silty clay loam, silty clay	CH	A-7-6	0	0	100	99-100	80-100	60-95	43-65	25-40

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
DtC2:												
Dulac-----------	0-5	Silt loam	CL	A-6	0	0	100	100	90-100	85-95	23-40	7-18
	5-19	Silty clay loam, silt loam	CL	A-6	0	0	100	100	90-100	85-95	28-45	12-24
	19-30	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-100	92-100	28-44	12-25
	30-33	Silty clay loam, clay loam, silt loam	CL	A-7-6	0	0	100	95-100	90-100	85-95	29-44	13-25
	33-64	Clay, silty clay	CH	A-7-6	0	0	85-100	85-100	73-100	62-87	47-63	28-40
	64-79	Bedrock	---	---	---	---	---	---	---	---	---	---
Tippah----------	0-5	Silt loam	CL	A-6	0	0	100	100	90-100	70-90	23-48	7-24
	5-20	Silty clay loam, silt loam	CL	A-6	0	0	100	98-100	90-100	85-95	22-45	7-25
	20-79	Clay, silty clay loam, silty clay	CH	A-7-6	0	0	100	99-100	80-100	60-95	43-65	25-40
DtC3:												
Dulac-----------	0-3	Silt loam	CL	A-6	0	0	100	100	88-100	84-95	23-47	7-24
	3-15	Silty clay loam, silt loam	CL	A-6	0	0	100	100	90-100	85-95	28-45	12-24
	15-30	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-100	92-100	28-44	12-25
	30-33	Silty clay loam, clay loam, silt loam	CL	A-7-6	0	0	100	95-100	90-100	85-95	29-44	13-25
	33-64	Clay, silty clay	CH	A-7-6	0	0	85-100	85-100	73-100	62-87	47-63	28-40
	64-79	Bedrock	---	---	---	---	---	---	---	---	---	---
Tippah----------	0-3	Silt loam	CL	A-6	0	0	100	100	90-100	70-90	23-48	7-24
	3-34	Silty clay loam, silt loam	CL	A-6	0	0	100	98-100	90-100	85-95	22-45	7-25
	34-79	Clay, silty clay loam, silty clay	CH	A-7-6	0	0	100	99-100	80-100	60-95	43-65	25-40
DtD2:												
Dulac-----------	0-5	Silt loam	CL	A-6	0	0	100	100	90-100	85-95	23-40	7-18
	5-19	Silty clay loam, silt loam	CL	A-6	0	0	100	100	90-100	85-95	28-45	12-24
	19-30	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-100	92-100	28-44	12-25
	30-33	Silty clay loam, clay loam, silt loam	CL	A-7-6	0	0	100	95-100	90-100	85-95	29-44	13-25
	33-64	Clay, silty clay	CH	A-7-6	0	0	85-100	85-100	73-100	62-87	47-63	28-40
	64-79	Bedrock	---	---	---	---	---	---	---	---	---	---

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
DtD2:												
Tippah----------	0-5	Silt loam	CL	A-6	0	0	100	100	90-100	70-90	23-48	7-24
	5-20	Silty clay loam, silt loam	CL	A-6	0	0	100	98-100	90-100	85-95	22-45	7-25
	20-79	Clay, silty clay loam, silty clay	CH	A-7-6	0	0	100	99-100	80-100	60-95	43-65	25-40
DtD3:												
Dulac-----------	0-3	Silt loam	CL	A-6	0	0	100	100	88-100	84-95	23-47	7-24
	3-15	Silty clay loam, silt loam	CL	A-6	0	0	100	100	90-100	85-95	28-45	12-24
	15-30	Silt loam, silty clay loam	CL	A-6	0	0	100	100	96-100	92-100	28-44	12-25
	30-33	Silty clay loam, clay loam, silt loam	CL	A-7-6	0	0	100	95-100	90-100	85-95	29-44	13-25
	33-64	Clay, silty clay	CH	A-7-6	0	0	85-100	85-100	73-100	62-87	47-63	28-40
	64-79	Bedrock	---	---	---	---	---	---	---	---	---	---
Tippah----------	0-3	Silt loam	CL	A-6	0	0	100	100	90-100	70-90	23-48	7-24
	3-34	Silty clay loam, silt loam	CL	A-6	0	0	100	98-100	90-100	85-95	22-45	7-25
	34-79	Clay, silty clay loam, silty clay	CH	A-7-6	0	0	100	99-100	80-100	60-95	43-65	25-40
Ea:												
Enville---------	0-5	Silt loam	CL, CL-ML	A-4	0	0	100	100	79-100	65-92	0-41	NP-19
	5-13	Silt loam	CL	A-4	0	0	100	100	84-98	68-82	17-35	2-12
	13-45	Stratified sand to loamy sand to sandy loam	SC-SM	A-2-4	0	0	100	100	82-89	31-38	17-28	2-7
	45-79	Gravelly loamy sand, sand	SM	A-2-4	0	0	80-100	65-85	35-62	9-22	0-32	NP-11
Eb:												
Enville---------	0-5	Silt loam	CL, CL-ML	A-4	0	0	100	100	79-100	65-92	0-41	NP-19
	5-13	Silt loam	CL	A-4	0	0	100	100	84-98	68-82	17-35	2-12
	13-45	Stratified sand to loamy sand to sandy loam	SC-SM	A-2-4	0	0	100	100	82-89	31-38	17-28	2-7
	45-79	Gravelly loamy sand, sand	SM	A-2-4	0	0	80-100	65-85	35-62	9-22	0-32	NP-11
Bibb------------	0-8	Silt loam	CL-ML	A-4	0	0	100	100	83-99	65-81	0-35	NP-12
	8-79	Stratified loamy sand to fine sandy loam to loam to silt loam	SC-SM	A-4	0	0	100	100	78-96	39-57	0-31	NP-12

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
FaB2:												
Falkner---------	0-7	Silt loam	CL-ML	A-4	0	0	100	100	95-100	90-100	17-42	2-18
	7-22	Silty clay loam, silt loam	CL	A-6	0	0	100	100	95-100	85-95	29-44	13-25
	22-77	Silty clay, clay	CH	A-7-6	0	0	100	100	90-100	85-95	47-69	27-44
	77-79	Bedrock	---	---	---	---	---	---	---	---	---	---
FeA:												
Feliciana-------	0-12	Silt loam	CL-ML, CL	A-4	0	0	100	100	100	90-100	21-38	4-15
	12-63	Silt loam, silty clay loam	CL	A-6	0	0	100	100	100	90-100	30-45	13-25
	63-79	Silt loam	CL, ML	A-6	0	0	100	100	100	55-100	0-37	NP-19
FeB2:												
Feliciana-------	0-7	Silt loam	CL-ML, CL	A-4	0	0	100	100	100	90-100	21-38	4-15
	7-52	Silt loam, silty clay loam	CL	A-6	0	0	100	100	100	90-100	30-45	13-25
	52-79	Silt loam	CL, ML	A-6	0	0	100	100	100	55-100	0-37	NP-19
GrA:												
Grenada---------	0-9	Silt loam	CL	A-4	0	0	100	100	94-100	90-100	20-41	4-18
	9-18	Silt loam	CL	A-6	0	0	100	100	83-100	80-99	19-37	4-19
	18-32	Silt loam	CL	A-6	0	0	100	100	90-100	85-100	22-37	7-19
	32-79	Silt loam, silty clay loam	CL	A-6	0	0	100	100	93-100	87-100	25-49	9-29
GrB2:												
Grenada---------	0-6	Silt loam	CL	A-4	0	0	100	100	94-100	90-100	20-41	4-18
	6-18	Silt loam	CL	A-6	0	0	100	100	83-100	80-99	19-37	4-19
	18-32	Silt loam	CL	A-6	0	0	100	100	90-100	85-100	22-37	7-19
	32-79	Silt loam, silty clay loam	CL	A-6	0	0	100	100	93-100	87-100	25-49	9-29
HgF:												
Hapludults------	0-4	Silt loam	CL-ML	A-4	0	0	100	100	95-100	75-95	16-31	2-13
	4-79	Loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-37	9-19
Gullied land.												
HtE:												
Hawthorne-------	0-4	Gravelly silt loam	GC, CL-ML	A-6	0	0-8	67-86	47-83	41-83	34-71	21-40	6-18
	4-11	Gravelly silt loam	GC	A-6	0	0-10	60-86	40-83	40-83	34-71	21-38	6-19
	11-36	Very gravelly silt loam, very gravelly silty clay loam	GC	A-2-6	0-1	0-4	57-72	28-50	21-50	19-50	20-48	6-28
	36-79	Bedrock	---	---	---	---	---	---	---	---	---	---

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				*Pct*	*Pct*					*Pct*	
HTF:												
Hawthorne-------	0-4	Gravelly silt loam	GC, CL-ML	A-6	0	0-8	67-86	47-83	41-83	34-71	21-40	6-18
	4-11	Gravelly silt loam	GC	A-6	0	0-10	60-86	40-83	40-83	34-71	21-38	6-19
	11-36	Very gravelly silt loam, very gravelly silty clay loam	GC	A-2-6	0-1	0-4	57-72	28-50	21-50	19-50	20-48	6-28
	36-79	Bedrock	---	---	---	---	---	---	---	---	---	---
Sengtown--------	0-3	Gravelly silt loam	CL, GC-GM	A-6	0	0	---	---	---	---	24-40	7-18
	3-6	Gravelly silt loam, gravelly silty clay loam	CL	A-6	0	0	---	---	---	---	27-48	12-28
	6-63	Gravelly clay gravelly silty clay	CH	A-7-6	0	0	50-90	40-75	40-70	40-70	47-67	28-44
	63-79	Very gravelly clay	CH	A-7-6	0	0	54-100	54-100	45-100	39-92	47-66	28-43
Sugargrove------	0-2	Gravelly silt loam, very gravelly silt loam	CL	A-6	0	0-10	65-85	55-80	45-75	40-75	24-42	7-18
	2-6	Gravelly silt loam	CL	A-6	0	0-15	65-85	55-80	45-75	40-70	27-37	12-19
	6-28	Gravelly silt loam, gravelly silty clay loam, channery silty clay loam	CL	A-6	0	0-15	65-85	55-80	45-75	40-70	27-44	12-24
	28-79	Bedrock	---	---	---	---	---	---	---	---	---	---
HuB:												
Humphreys-------	0-6	Gravelly silt loam	CL, ML, GC	A-6	0	0	66-91	50-91	43-91	35-77	24-42	7-18
	6-50	Gravelly silt loam, gravelly silty clay loam	CL	A-6	0	0	64-78	44-78	39-78	34-74	27-44	12-24
	50-57	Very gravelly silt loam, gravelly silty clay loam	GC	A-6	0	0	51-79	27-75	22-75	20-69	27-44	12-24
	57-79	Extremely gravelly loam, gravelly silty clay loam, gravelly clay loam, very gravelly clay loam	GC	A-2-6	0	0	51-78	27-78	23-78	18-65	27-44	12-24

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
HuC:												
Humphreys-------	0-6	Gravelly silt loam	CL, ML, GC	A-6	0	0	66-91	50-91	43-91	35-77	24-42	7-18
	6-50	Gravelly silt loam, gravelly silty clay loam	CL	A-6	0	0	64-78	44-78	39-78	34-74	27-44	12-24
	50-57	Very gravelly silt loam, gravelly silty clay loam	GC	A-6	0	0	51-79	27-75	22-75	20-69	27-44	12-24
	57-79	Extremely gravelly loam, gravelly silty clay loam, gravelly clay loam, very gravelly clay loam	GC	A-2-6	0	0	51-78	27-78	23-78	18-65	27-44	12-24
Ik:												
Iuka------------	0-5	Loam	CL-ML	A-4	0	0	100	100	92-100	65-75	17-33	2-12
	5-11	Silt loam	CL-ML	A-4	0	0	100	100	84-97	64-77	17-32	2-12
	11-30	Stratified fine sandy loam, loamy sand, loam	SM	A-2-4	0	0	100	100	69-82	29-42	17-31	2-12
	30-79	Loam, sandy loam	CL-ML	A-4	0	0	100	100	81-94	52-65	16-32	2-12
KrA:												
Kurk------------	0-7	Silt loam	CL	A-4	0	0	100	100	95-100	85-95	24-38	7-15
	7-21	Silt loam, silt	CL	A-4	0	0	100	100	95-100	85-95	0-34	NP-15
	21-56	Silty clay loam, silt loam	CL	A-6	0	0	100	100	95-100	85-95	34-45	17-25
	56-79	Silt loam, loam	CL, CL-ML	A-6	0	0	100	100	90-100	70-95	25-40	9-21
LaB2:												
Lax-------------	0-2	Silt loam	CL, CL-ML	A-6	0	0	100	100	88-100	80-97	20-38	4-17
	2-8	Silty clay loam, silt loam	CL	A-6	0	0	100	100	88-100	83-100	27-45	12-25
	8-26	Silt loam, silty clay loam	CL	A-6	0	0	55-100	50-100	46-100	44-100	27-44	12-25
	26-36	Gravelly silt loam, gravelly silty clay loam, very gravelly silty clay loam	CL	A-6	0	0	51-79	32-79	29-79	28-79	27-44	12-24
	36-79	Very gravelly silt loam	GC	A-2-6	0	0	43-79	24-79	23-79	21-79	27-43	12-25

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
LaC2:												
Lax-------------	0-2	Silt loam	CL, CL-ML	A-6	0	0	100	100	88-100	80-97	20-38	4-17
	2-8	Silty clay loam, silt loam	CL	A-6	0	0	100	100	88-100	83-100	27-45	12-25
	8-26	Silt loam, silty clay loam	CL	A-6	0	0	55-100	50-100	46-100	44-100	27-44	12-25
	26-36	Gravelly silt loam, gravelly silty clay loam, very gravelly silty clay loam	CL	A-6	0	0	51-79	32-79	29-79	28-79	27-44	12-24
	36-79	Very gravelly silt loam	GC	A-2-6	0	0	43-79	24-79	23-79	21-79	27-43	12-25
LbC3:												
Lax-------------	0-5	Silty clay loam	CL, ML, CL-ML	A-6	0	0	100	100	72-100	67-99	20-52	4-28
	5-16	Silty clay loam, silt loam	CL	A-6	0	0	87-100	79-100	63-100	60-98	27-49	12-28
	16-36	Gravelly silt loam, gravelly silty clay loam, very gravelly silty clay loam	CL	A-6	0	0	51-79	32-79	29-79	28-79	27-44	12-24
	36-79	Very gravelly silt loam	GC	A-2-6	0	0	43-79	24-79	23-79	21-79	27-43	12-25
LeA:												
Lexington-------	0-9	Silt loam	CL	A-6	0	0	100	100	83-100	80-100	23-40	7-18
	9-37	Silty clay loam, silt loam	CL	A-6	0	0	100	100	83-100	80-97	29-45	13-25
	37-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
LeB2:												
Lexington-------	0-6	Silt loam	CL	A-6	0	0	100	100	83-100	80-100	23-40	7-18
	6-29	Silty clay loam, silt loam	CL	A-6	0	0	100	100	83-100	80-97	29-45	13-25
	29-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
LeC2:												
Lexington-------	0-6	Silt loam	CL	A-6	0	0	100	100	83-100	80-100	23-40	7-18
	6-29	Silty clay loam, silt loam	CL	A-6	0	0	100	100	83-100	80-97	29-45	13-25
	29-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
LeD2:												
Lexington	0-6	Silt loam	CL	A-6	0	0	100	100	83-100	80-100	23-40	7-18
	6-29	Silty clay loam, silt loam	CL	A-6	0	0	100	100	83-100	80-97	29-45	13-25
	29-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
LnB3:												
Lexington	0-3	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	76-100	72-99	34-48	16-24
	3-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	82-100	77-100	29-50	13-29
	29-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
LnC3:												
Lexington	0-3	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	76-100	72-99	34-48	16-24
	3-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	82-100	77-100	29-50	13-29
	29-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
LnD3:												
Lexington	0-3	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	76-100	72-99	34-48	16-24
	3-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	82-100	77-100	29-50	13-29
	29-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
Lo:												
Lobelville	0-6	Silt loam, gravelly silt loam	CL, CL-ML	A-6	0	0-7	82-100	81-100	73-100	61-86	27-40	9-18
	6-14	Gravelly silt loam	CL	A-6	0	0	86-100	63-100	59-100	51-97	29-45	12-24
	14-48	Gravelly loam gravelly silt loam	SC	A-6	0	0-2	75-89	49-89	39-89	29-70	18-37	3-18
	48-79	Very gravelly loam, very gravelly silt loam	CL	A-6	0	0-3	57-91	21-91	15-90	11-73	0-37	NP-18
LrA:												
Loring	0-8	Silt loam	CL	A-4	0	0	100	100	94-100	90-100	20-41	4-18
	8-26	Silt loam	CL	A-6	0	0	100	100	83-100	80-99	19-37	4-19
	26-49	Silty clay loam, silt loam	CL	A-6	0	0	100	100	77-100	74-100	19-50	4-29
	49-79	Loam, silt loam	CL	A-4	0	0	100	100	93-100	69-88	19-37	4-19

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
LrB2:												
Loring----------	0-8	Silt loam	CL	A-4	0	0	100	100	94-100	90-100	20-41	4-18
	8-27	Silt loam	CL	A-6	0	0	100	100	83-100	80-99	19-37	4-19
	27-52	Silty clay loam, silt loam	CL	A-6	0	0	100	100	77-100	74-100	19-50	4-29
	52-79	Loam, silt loam	CL	A-4	0	0	100	100	93-100	69-88	19-37	4-19
LrC2:												
Loring----------	0-8	Silt loam	CL	A-4	0	0	100	100	94-100	90-100	20-41	4-18
	8-27	Silt loam	CL	A-6	0	0	100	100	83-100	80-99	19-37	4-19
	27-52	Silty clay loam, silt loam	CL	A-6	0	0	100	100	77-100	74-100	19-50	4-29
	52-79	Loam, silt loam	CL	A-4	0	0	100	100	93-100	69-88	19-37	4-19
LuE2:												
Luverne---------	0-4	Fine sandy loam, sandy loam	SC, SM, SC-SM, CL-ML	A-4	0	0	100	100	86-94	33-41	19-28	3-10
	4-12	Fine sandy loam, sandy loam	SC	A-4	0	0	100	100	86-94	33-41	19-28	3-10
	12-37	Clay, clay loam	CH, CL	A-7-6	0	0	100	100	76-100	63-93	44-72	25-47
	37-71	Clay loam, clay	CL	A-7-6	0	0	100	100	94-100	78-100	44-72	25-47
	71-79	Stratified loamy sand to loam to sandy clay loam	CL	A-4	0	0	100	100	90-100	58-73	20-34	6-17
Ng:												
Nugent----------	0-8	Loamy sand	SM, SP-SM	A-2-4	0	0	100	100	76-82	27-33	0-25	NP-4
	8-79	Stratified sand to fine sand to loamy sand to silt loam	SM	A-2-4	0	0	100	100	81-89	29-37	0-23	NP-6
Ok:												
Ochlockonee-----	0-8	Fine sandy loam, loam	CL-ML	A-4	0	0	100	95-100	95-100	50-90	19-36	3-15
	8-58	Stratified sandy loam to fine sandy loam to loam to silt loam	SC-SM	A-4	0	0	100	100	84-94	45-55	20-30	4-12
	58-79	Loam, loamy sand, sandy loam, silt loam	SC	A-4	0	0	100	95-100	85-99	10-80	0-31	NP-12
PaB2:												
Paden-----------	0-7	Silt loam	CL	A-6	0	0	100	100	97-100	92-100	29-46	12-22
	7-18	Silt loam, silty clay loam	CL	A-6	0	0	100	100	94-100	89-100	28-44	12-25
	18-30	Silty clay loam, silt loam	CL	A-6	0	0	100	100	88-100	80-97	28-44	12-25
	30-79	Silt loam, silty clay loam, clay loam	CL	A-6	0	0	100	100	90-100	80-97	28-44	12-25

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
PaC2:												
Paden-----------	0-7	Silt loam	CL	A-6	0	0	100	100	97-100	92-100	29-46	12-22
	7-18	Silt loam, silty clay loam	CL	A-6	0	0	100	100	94-100	89-100	28-44	12-25
	18-30	Silty clay loam, silt loam	CL	A-6	0	0	100	100	88-100	80-97	28-44	12-25
	30-79	Silt loam, silty clay loam, clay loam	CL	A-6	0	0	100	100	90-100	80-97	28-44	12-25
Pc:												
Pits, clay.												
Pg:												
Pits, gravel or sand.												
PoA:												
Providence------	0-9	Silt loam	CL, ML	A-6	0	0	100	100	88-100	84-100	23-42	7-18
	9-30	Silt loam, silty clay loam	CL	A-6	0	0	100	100	89-100	85-100	23-38	7-18
	30-42	Silty clay loam	CL	A-6	0	0	100	100	96-100	92-100	36-50	19-29
	42-66	Loam, silt loam	CL, CL-ML	A-6	0	0	100	95-100	86-100	66-85	22-37	7-19
	66-79	Sandy clay loam	CL	A-6	0	0	100	100	96-100	68-83	29-44	13-25
Kurk------------	0-7	Silt loam	CL	A-4	0	0	100	100	95-100	85-95	24-38	7-15
	7-21	Silt loam, silt	CL	A-4	0	0	100	100	95-100	85-95	0-34	NP-15
	21-56	Silty clay loam, silt loam	CL	A-6	0	0	100	100	95-100	85-95	34-45	17-25
	56-79	Silt loam, loam	CL, CL-ML	A-6	0	0	100	100	90-100	70-95	25-40	9-21
PoB2:												
Providence------	0-6	Silt loam	CL	A-6	0	0	100	100	93-100	89-100	23-42	7-18
	6-18	Silt loam, silty clay loam	CL	A-6	0	0	100	100	89-100	85-100	23-38	7-18
	18-32	Silty clay loam	CL	A-6	0	0	100	100	96-100	92-100	36-50	19-29
	32-62	Loam, silt loam	CL, CL-ML	A-6	0	0	100	95-100	86-100	66-85	22-37	7-19
	62-79	Sandy clay loam	CL	A-6	0	0	100	100	96-100	68-83	29-44	13-25
PoC2:												
Providence------	0-6	Silt loam	CL	A-6	0	0	100	100	88-100	84-100	23-42	7-18
	6-18	Silt loam, silty clay loam	CL	A-6	0	0	100	100	89-100	85-100	23-38	7-18
	18-32	Silty clay loam	CL	A-6	0	0	100	100	96-100	92-100	36-50	19-29
	32-62	Loam, silt loam	CL, CL-ML	A-6	0	0	100	95-100	86-100	66-85	22-37	7-19
	62-79	Sandy clay loam	CL	A-6	0	0	100	100	96-100	68-83	29-44	13-25

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
PoD2:												
Providence------	0-6	Silt loam	CL	A-6	0	0	100	100	88-100	84-100	23-42	7-18
	6-18	Silt loam, silty clay loam	CL	A-6	0	0	100	100	89-100	85-100	23-38	7-18
	18-32	Silty clay loam	CL	A-6	0	0	100	100	96-100	92-100	36-50	19-29
	32-62	Loam, silt loam	CL, CL-ML	A-6	0	0	100	95-100	86-100	66-85	22-37	7-19
	62-79	Sandy clay loam	CL	A-6	0	0	100	100	96-100	68-83	29-44	13-25
PrB3:												
Providence------	0-3	Silty clay loam, silt loam	CL	A-6	0	0	100	100	88-100	84-100	34-50	16-24
	3-15	Silty clay loam, silt loam	CL	A-6	0	0	100	100	89-100	85-100	30-50	13-28
	15-22	Silty clay loam	CL	A-7-6	0	0	100	100	96-100	92-100	36-50	19-29
	22-58	Loam, silt loam	CL, CL-ML	A-6	0	0	100	95-100	86-100	66-85	22-37	7-19
	58-79	Sandy clay loam	CL	A-6	0	0	100	100	96-100	68-83	29-44	13-25
PrC3:												
Providence------	0-3	Silty clay loam, silt loam	CL	A-6	0	0	100	100	88-100	84-100	34-50	16-24
	3-15	Silty clay loam, silt loam	CL	A-6	0	0	100	100	89-100	85-100	30-50	13-28
	15-22	Silty clay loam	CL	A-7-6	0	0	100	100	96-100	92-100	36-50	19-29
	22-58	Loam, silt loam	CL, CL-ML	A-6	0	0	100	95-100	86-100	66-85	22-37	7-19
	58-79	Sandy clay loam	CL	A-6	0	0	100	100	96-100	68-83	29-44	13-25
PrD3:												
Providence------	0-3	Silty clay loam, silt loam	CL	A-6	0	0	100	100	88-100	84-100	34-50	16-24
	3-15	Silty clay loam, silt loam	CL	A-6	0	0	100	100	89-100	85-100	30-50	13-28
	15-22	Silty clay loam	CL	A-7-6	0	0	100	100	96-100	92-100	36-50	19-29
	22-58	Loam, silt loam	CL, CL-ML	A-6	0	0	100	95-100	86-100	66-85	22-37	7-19
	58-79	Sandy clay loam	CL	A-6	0	0	100	100	96-100	68-83	29-44	13-25
Pu:												
Pruitton--------	0-6	Silt loam	CL	A-6	0	0	100	100	86-100	75-93	25-45	6-19
	6-34	Silt loam, loam	CL	A-6	0	0	100	100	91-100	79-88	29-39	12-18
	34-79	Very gravelly loam, gravelly silt loam	SC	A-6	0	0-8	40-90	40-75	20-75	15-70	18-36	3-17

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
Re:												
Riverby----------	0-5	Very gravelly loam, very gravelly sandy loam	SC-SM SW-SM, GM, GC-GM	A-2-4	0	0-11	61-86	24-86	18-86	8-44	21-40	4-18
	5-19	Extremely gravelly loamy coarse sand	GW-GC,	A-1-a	0	0-32	20-91	0-91	0-62	0-39	0-26	NP-9
	19-79	Extremely gravelly loamy coarse sand	GW	A-1-a	0	0-36	26-91	6-91	3-58	1-28	0-26	NP-9
Ennis------------	0-7	Gravelly silt loam, silt loam	CL, CL-ML	A-6	0	0-4	64-100	36-100	31-100	25-86	24-42	7-18
	7-37	Gravelly silt loam, gravelly loam gravelly clay loam	CL	A-6	0	3-9	80-91	56-77	49-77	42-75	28-49	12-28
	37-79	Very gravelly loam, very gravelly silt loam	GC-GM	A-4	0	0-10	61-94	14-94	13-94	11-85	19-36	4-18
RO:												
Rosebloom--------	0-6	Silt loam, silty clay loam	CL	A-6	0	0	100	100	91-100	88-100	30-50	12-24
	6-60	Silt loam, silty clay loam	CL	A-6	0	0	100	100	90-100	90-95	28-45	12-24
	60-79	Fine sandy loam	CL	A-6	0	0	100	100	95-100	90-100	23-32	7-13
Bibb-------------	0-8	Silt loam	CL-ML	A-4	0	0	100	100	83-99	65-81	0-35	NP-12
	8-79	Stratified loamy sand to fine sandy loam to loam to silt loam	SC-SM	A-4	0	0	100	100	78-96	39-57	0-31	NP-12
RtA:												
Routon-----------	0-6	Silt loam	CL	A-6	0	0	100	100	90-100	85-95	24-41	7-18
	6-17	Silt, silt loam	CL-ML	A-4	0	0	100	100	90-100	85-95	0-30	NP-9
	17-51	Silt loam, silty clay loam	CL	A-6	0	0	100	100	90-100	90-95	0-52	NP-28
	51-79	Silt loam, silty clay loam	CL, CL-ML	A-6	0	0	100	100	90-100	85-95	0-47	NP-24
RuA:												
Routon-----------	0-6	Silt loam	CL	A-6	0	0	100	100	90-100	85-95	24-41	7-18
	6-17	Silt, silt loam	CL-ML	A-4	0	0	100	100	90-100	85-95	0-30	NP-9
	17-51	Silt loam, silty clay loam	CL	A-6	0	0	100	100	90-100	90-95	0-52	NP-28
	51-79	Silt loam, silty clay loam	CL, CL-ML	A-6	0	0	100	100	90-100	85-95	0-47	NP-24

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
SaC2:												
Saffell	0-2	Gravelly silt loam	CL, CL-ML	A-6	0	0	40-100	37-100	31-100	30-97	24-40	7-18
	2-13	Gravelly silt loam	CL	A-6	0	0	94-100	83-100	71-100	68-99	29-40	12-18
	13-51	Extremely gravelly loam, extremely gravelly sandy clay loam	GC	A-2-6	0	0-8	20-51	15-47	9-42	6-34	16-44	2-24
	51-79	Extremely gravelly fine sandy loam	GC	A-2-6	0	0-8	50-90	15-80	13-80	10-72	16-31	2-13
Brandon	0-1	Silt loam	CL, CL-ML	A-6	0	0	100	100	90-100	88-100	24-40	7-18
	1-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	84-100	81-98	29-47	12-24
	29-36	Gravelly silt loam, gravelly loam	CL, SC-SM, GC-GM	A-6	0	0-10	55-74	53-73	44-68	39-61	27-37	12-18
	36-79	Very gravelly loam, very gravelly silt loam	GC, SC-SM, GC-GM	A-2-6	0	0-8	50-90	15-80	13-80	10-72	27-44	12-24
SaE2:												
Saffell	0-2	Gravelly silt loam	CL, CL-ML	A-6	0	0	40-100	37-100	31-100	30-97	24-40	7-18
	2-13	Gravelly silt loam	CL	A-6	0	0	94-100	83-100	71-100	68-99	29-40	12-18
	13-51	Extremely gravelly loam, extremely gravelly sandy clay loam	GC	A-2-6	0	0-8	20-51	15-47	9-42	6-34	16-44	2-24
	51-79	Extremely gravelly fine sandy loam	GC	A-2-6	0	0-8	50-90	15-80	13-80	10-72	16-31	2-13
Brandon	0-1	Silt loam	CL, CL-ML	A-6	0	0	100	100	90-100	88-100	24-40	7-18
	1-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	84-100	81-98	29-47	12-24
	29-36	Gravelly silt loam, gravelly loam	CL, SC-SM, GC-GM	A-6	0	0-10	55-74	53-73	44-68	39-61	27-37	12-18
	36-79	Very gravelly loam, very gravelly silt loam	GC, SC-SM, GC-GM	A-2-6	0	0-8	50-90	15-80	13-80	10-72	27-44	12-24
SAF:												
Saffell	0-2	Gravelly silt loam	CL, CL-ML	A-6	0	0	40-100	37-100	31-100	30-97	24-40	7-18
	2-13	Gravelly silt loam	CL	A-6	0	0	94-100	83-100	71-100	68-99	29-40	12-18
	13-51	Extremely gravelly loam, extremely gravelly sandy clay loam	GC	A-2-6	0	0-8	20-51	15-47	9-42	6-34	16-44	2-24
	51-79	Extremely gravelly fine sandy loam	GC	A-2-6	0	0-8	50-90	15-80	13-80	10-72	16-31	2-13

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
SAF:												
Smithdale-------	0-3	Loam, sandy loam, fine sandy loam	CL, SM, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	3-5	Loam, sandy loam	CL-ML	A-4	0	0	100	100	77-100	44-77	0-38	NP-19
	5-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13
Brandon---------	0-1	Silt loam	CL, CL-ML	A-6	0	0	100	100	92-100	89-100	24-40	7-18
	1-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	86-100	83-100	29-52	12-28
	29-36	Gravelly silt loam, gravelly loam	CL, SC-SM, GC-GM	A-6	0	0-10	55-74	53-73	44-68	39-61	27-37	12-18
	36-79	Very gravelly loam, very gravelly silt loam	GC, SC-SM, GC-GM	A-2-6	0	0-8	50-90	15-80	13-80	10-72	27-44	12-24
SeD2:												
Smithdale-------	0-3	Loam, sandy loam, fine sandy loam	CL, SM, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	3-5	Loam, sandy loam	CL-ML	A-4	0	0	100	85-100	77-100	44-77	0-38	NP-19
	5-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13
SeD3:												
Smithdale-------	0-2	Loam	CL, SM, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	2-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13
SeE2:												
Smithdale-------	0-3	Loam, sandy loam, fine sandy loam	CL, SM, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	3-5	Loam, sandy loam	CL-ML	A-4	0	0	100	100	77-100	44-77	0-38	NP-19
	5-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13
SgD2:												
Smithdale-------	0-3	Loam, sandy loam, fine sandy loam	CL, SM, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	3-5	Loam, sandy loam	CL-ML	A-4	0	0	100	100	77-100	44-77	0-38	NP-19
	5-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
SgD2:												
Lexington-------	0-6	Silt loam	CL	A-6	0	0	100	100	83-100	80-100	23-40	7-18
	6-29	Silty clay loam, silt loam	CL	A-6	0	0	100	100	83-100	80-97	29-45	13-25
	29-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
SgD3:												
Smithdale-------	0-2	Loam	CL, SM, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	2-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13
Lexington-------	0-3	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	76-100	72-99	34-48	16-24
	3-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	82-100	77-100	29-50	13-29
	29-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
SgE2:												
Smithdale-------	0-3	Loam, sandy loam, fine sandy loam	CL, SM, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	3-5	Loam, sandy loam	CL-ML	A-4	0	0	100	100	77-100	44-77	0-38	NP-19
	5-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13
Lexington-------	0-6	Silt loam	CL	A-6	0	0	100	100	83-100	80-100	23-40	7-18
	6-29	Silty clay loam, silt loam	CL	A-6	0	0	100	100	83-100	80-97	29-45	13-25
	29-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
SgE3:												
Smithdale-------	0-2	Loam	CL, SM, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	2-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
SgE3:												
Lexington-------	0-3	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	76-100	72-99	34-48	16-24
	3-29	Silty clay loam, silt loam	CL	A-7-6	0	0	100	100	82-100	77-100	29-50	13-29
	29-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
SnD2:												
Smithdale-------	0-3	Loam, sandy loam, fine sandy loam	CL, SM, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	3-5	Loam, sandy loam	CL-ML	A-4	0	0	100	100	77-100	44-77	0-38	NP-19
	5-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13
Luverne---------	0-4	Fine sandy loam, sandy loam	SC, SM, SC-SM, CL-ML	A-4	0	0	100	100	86-94	33-41	19-28	3-10
	4-12	Fine sandy loam, sandy loam	SC	A-4	0	0	100	100	86-94	33-41	19-28	3-10
	12-37	Clay, clay loam	CH, CL	A-7-6	0	0	100	100	76-100	63-93	44-72	25-47
	37-71	Clay loam, clay	CL	A-7-6	0	0	100	100	94-100	78-100	44-72	25-47
	71-79	Stratified loamy sand to loam to sandy clay loam	CL	A-4	0	0	100	100	90-100	58-73	20-34	6-17
SnD3:												
Smithdale-------	0-2	Loam	CL, SC-SM, CL-ML	A-4	0	0	100	100	88-100	58-83	0-37	NP-18
	2-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13
Luverne---------	0-3	Clay loam	CL, SC-SM	A-7-6	0	0	100	100	92-100	63-75	37-50	19-28
	3-37	Clay, clay loam	CH, CL	A-7-6	0	0	100	100	76-100	63-93	44-72	25-47
	37-48	Clay loam, clay	CL	A-7-6	0	0	100	100	94-100	78-100	44-72	25-47
	48-79	Stratified loamy sand to loam to sandy clay loam	CL	A-4	0	0	100	100	90-100	58-73	20-34	6-17
SnE2:												
Smithdale-------	0-3	Loam, sandy loam, fine sandy loam	CL, SM, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	3-5	Loam, sandy loam	CL-ML	A-4	0	0	100	100	77-100	44-77	0-38	NP-19
	5-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
SnE2:												
Luverne---------	0-4	Fine sandy loam, sandy loam	SC, SM, SC-SM, CL-ML	A-4	0	0	100	100	86-94	33-41	19-28	3-10
	4-12	Fine sandy loam, sandy loam	SC	A-4	0	0	100	100	86-94	33-41	19-28	3-10
	12-37	Clay, clay loam	CH, CL	A-7-6	0	0	100	100	76-100	63-93	44-72	25-47
	37-71	Clay loam, clay	CL	A-7-6	0	0	100	100	94-100	78-100	44-72	25-47
	71-79	Stratified loamy sand to loam to sandy clay loam	CL	A-4	0	0	100	100	90-100	58-73	20-34	6-17
SRF:												
Smithdale-------	0-3	Loam, sandy loam, fine sandy loam	CL, SC-SM	A-4	0	0	100	100	88-100	58-83	0-40	NP-18
	3-5	Loam, sandy loam	CL-ML	A-4	0	0	100	100	77-100	44-77	0-38	NP-19
	5-56	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-44	7-24
	56-79	Sandy loam	SC	A-2-6	0	0	100	100	59-77	19-37	0-31	NP-13
Remlik----------	0-3	Loamy sand, loamy fine sand, sandy loam	SC-SM, SM	A-2-4	0	0	100	90-100	45-85	15-45	0-24	NP-6
	3-25	Loamy sand	SM	A-2-4	0	0	100	100	73-83	22-32	0-23	NP-6
	25-45	Sandy clay loam, clay loam, loam	CL	A-6	0	0	100	100	80-96	45-75	22-45	7-25
	45-79	Loamy fine sand, stratified sand to loamy fine sand	SC-SM	A-2-4	0	0	100	100	89-95	25-31	0-21	NP-4
Luverne---------	0-4	Fine sandy loam, sandy loam	SC, SM, SC-SM, CL-ML	A-4	0	0	100	100	86-94	33-41	19-28	3-10
	4-12	Fine sandy loam, sandy loam	SC	A-4	0	0	100	100	86-94	33-41	19-28	3-10
	12-37	Clay, clay loam	CH, CL	A-7-6	0	0	100	100	76-100	63-93	44-72	25-47
	37-48	Clay loam, clay	CL	A-7-6	0	0	100	100	94-100	78-100	44-72	25-47
	48-79	Stratified loamy sand to loam to sandy clay loam	CL	A-4	0	0	100	100	90-100	58-73	20-34	6-17
SuC:												
Sugargrove------	0-2	Gravelly silt loam, very gravelly silt loam	CL	A-6	0	0-10	65-85	55-80	45-75	40-75	24-42	7-18
	2-6	Gravelly silt loam	CL	A-6	0	0-15	65-85	55-80	45-75	40-70	27-37	12-19
	6-28	Gravelly silt loam, gravelly silty clay loam, channery silty clay loam	CL	A-6	0	0-15	65-85	55-80	45-75	40-70	27-44	12-24
	28-79	Bedrock	---	---	---	---	---	---	---	---	---	---

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
SuC:												
Sengtown--------	0-3	Gravelly silt loam	CL, GC-GM	A-6	0	0	---	---	---	---	24-40	7-18
	3-6	Gravelly silt loam, gravelly silty clay loam	CL	A-6	0	0	---	---	---	---	27-48	12-28
	6-63	Gravelly clay gravelly silty clay	CH	A-7-6	0	0	50-90	40-75	40-70	40-70	47-67	28-44
	63-79	Very gravelly clay	CH	A-7-6	0	0	54-100	54-100	45-100	39-92	47-66	28-43
Hawthorne-------	0-4	Gravelly silt loam	GC, CL-ML	A-6	0	0-8	67-86	47-83	41-83	34-71	21-40	6-18
	4-11	Gravelly silt loam	GC	A-6	0	0-10	60-86	40-83	40-83	34-71	21-38	6-19
	11-36	Very gravelly silt loam, very gravelly silty clay loam	GC	A-2-6	0-1	0-4	57-72	28-50	21-50	19-50	20-48	6-28
	36-79	Bedrock	---	---	---	---	---	---	---	---	---	---
SuE:												
Sugargrove------	0-2	Gravelly silt loam, very gravelly silt loam	CL	A-6	0	0-10	65-85	55-80	45-75	40-75	24-42	7-18
	2-6	Gravelly silt loam	CL	A-6	0	0-15	65-85	55-80	45-75	40-70	27-37	12-19
	6-28	Gravelly silt loam, gravelly silty clay loam, channery silty clay loam	CL	A-6	0	0-15	65-85	55-80	45-75	40-70	27-44	12-24
	28-79	Bedrock	---	---	---	---	---	---	---	---	---	---
Sengtown--------	0-3	Gravelly silt loam	CL, GC-GM	A-6	0	0	---	---	---	---	24-40	7-18
	3-6	Gravelly silt loam, gravelly silty clay loam	CL	A-6	0	0	---	---	---	---	27-48	12-28
	6-63	Gravelly clay gravelly silty clay	CH	A-7-6	0	0	50-90	40-75	40-70	40-70	47-67	28-44
	63-79	Very gravelly clay	CH	A-7-6	0	0	54-100	54-100	45-100	39-92	47-66	28-43
Hawthorne-------	0-4	Gravelly silt loam	GC, CL-ML	A-6	0	0-8	67-86	47-83	41-83	34-71	21-40	6-18
	4-11	Gravelly silt loam	GC	A-6	0	0-10	60-86	40-83	40-83	34-71	21-38	6-19
	11-36	Very gravelly silt loam, very gravelly silty clay loam	GC	A-2-6	0-1	0-4	57-72	28-50	21-50	19-50	20-48	6-28
	36-79	Bedrock	---	---	---	---	---	---	---	---	---	---

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
TmC:												
Tarklin---------	0-2	Silt loam	CL	A-6	0	0	75-100	73-100	67-98	63-93	29-38	12-17
	2-10	Silt loam	CL	A-6	0	0	100	100	89-100	81-99	20-38	6-19
	10-20	Gravelly silty clay loam, gravelly silt loam	CL	A-6	0	0-14	75-82	59-78	52-78	46-76	29-48	13-28
	20-79	Very gravelly silt loam, very gravelly loam	GC	A-2-6	0	0-9	50-66	17-52	16-52	13-49	29-35	13-17
Minvale---------	0-5	Gravelly silt loam	CL	A-6	0	0-5	75-95	75-90	65-85	55-75	26-40	9-18
	5-18	Gravelly silt loam	CL	A-6	0	0-5	50-75	50-75	40-70	36-65	22-37	7-19
	18-79	Gravelly silt loam, gravelly silty clay loam	CL	A-6	0	0-5	55-80	50-75	40-70	36-65	29-41	13-22
TmE:												
Tarklin---------	0-2	Silt loam, gravelly silt loam	CL	A-6	0	0	75-100	73-100	67-98	63-93	29-38	12-17
	2-10	Silt loam	CL	A-6	0	0	100	100	78-100	71-94	16-38	2-19
	10-20	Gravelly silty clay loam, gravelly silt loam	CL	A-6	0	0-14	75-82	59-78	52-78	46-76	29-48	13-28
	20-79	Very gravelly silt loam	GC	A-2-6	0	0-8	52-69	19-56	17-55	14-47	29-35	13-17
Minvale---------	0-5	Gravelly silt loam	CL	A-6	0	0-5	75-95	75-90	65-85	55-75	26-42	9-20
	5-18	Gravelly silt loam	CL	A-6	0	0-5	50-75	50-75	40-70	36-65	29-41	13-22
	18-79	Gravelly silt loam, gravelly silty clay loam	CL	A-6	0	0-5	55-80	50-75	40-70	36-65	29-37	13-19
Ua:												
Udorthents,----- loamy	0-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
Ud:												
Udorthents,----- loamy	0-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
Urban land.												

Table 14.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
Ur:												
Urban land.												
Udorthents, loamy----------	0-79	Loam, sandy loam, silt loam	CL, CL-ML	A-6	0	0	100	100	91-100	68-86	25-39	9-20
W:												
Water.												

Table 15.--Physical Soil Properties

[Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer. Absence of an entry indicates that data were not estimated]

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
Ak:														
Arkabutla-----------	0-7	5-20	53-85	10-27	1.40-1.50	0.6-2	0.20-0.22	0.5-2.1	0.2-1.0	.49	.49	5	6	48
	7-36	5-25	40-75	20-35	1.45-1.55	0.6-2	0.18-0.21	1.0-3.0	1.0-3.0	.49	.49			
	36-80	10-30	50-85	5-20	1.40-1.50	0.6-2	0.20-0.22	0.2-1.6	1.0-3.0	.49	.49			
Ao:														
Arkabutla-----------	0-7	5-20	53-85	10-27	1.40-1.50	0.6-2	0.20-0.22	0.5-2.1	0.2-1.0	.49	.49	5	6	48
	7-36	5-25	40-75	20-35	1.45-1.55	0.6-2	0.18-0.21	1.0-3.0	1.0-3.0	.49	.49			
	36-80	10-30	50-85	5-20	1.40-1.50	0.6-2	0.20-0.22	0.2-1.6	1.0-3.0	.49	.49			
Rosebloom-----------	0-6	0-10	55-72	18-35	1.40-1.50	0.6-2	0.18-0.22	1.0-3.0	1.0-3.0	.43	.43	5	6	48
	6-60	0-15	50-82	18-35	1.40-1.55	0.6-2	0.20-0.22	1.0-1.8	0.3-1.3	.49	.49			
	60-80	50-75	5-38	12-20	1.40-1.50	0.6-2	0.18-0.22	0.6-1.2	0.3-1.3	.28	.28			
ArC2:														
Armour--------------	0-6	0-30	50-80	15-27	1.30-1.45	0.6-2	0.18-0.23	1.1-2.7	1.0-3.0	.37	.37	5	5	56
	6-80	0-30	40-80	18-40	1.30-1.55	0.6-2	0.17-0.20	1.2-4.7	0.0-1.0	.49	.49			
AuE2:														
Arundel-------------	0-2	53-75	5-40	7-20	1.35-1.65	0.6-2	0.11-0.15	0.2-1.7	0.5-2.0	.28	.28	3	3	86
	2-30	10-35	0-45	35-65	1.55-1.65	0.00-0.06	0.12-0.18	5.2-12.9	0.0-0.0	.28	.28			
	30-80	---	---	---	---	0.00-0.06	0.00-0.00	---	0.0-0.0	---	---			
Chickasaw-----------	0-3	0-45	20-80	8-40	1.50-1.60	0.6-2	0.14-0.18	0.5-7.3	0.5-1.0	.49	.49	4	6	48
	3-6	0-10	50-88	12-40	1.50-1.60	0.6-2	0.15-0.20	0.5-7.2	0.3-0.8	.55	.55			
	6-23	0-45	10-60	35-55	1.40-1.60	0.00-0.06	0.10-0.15	5.8-10.9	0.1-0.8	.37	.37			
	23-42	0-35	10-40	40-70	1.40-1.65	0.00-0.06	0.08-0.14	6.8-14.6	0.0-0.5	.20	.20			
	42-80	---	---	---	---	0.00-0.2	0.00-0.00	---	0.0-0.0	---	---			
BrB2:														
Brandon-------------	0-1	0-15	58-88	12-27	1.20-1.40	0.6-2	0.18-0.23	0.5-1.4	1.0-2.0	.43	.43	4	5	56
	1-29	0-20	45-82	18-35	1.20-1.45	0.6-2	0.18-0.23	0.8-2.2	0.5-2.0	.37	.37			
	29-36	15-30	43-67	18-27	1.20-1.45	2-20	0.05-0.12	0.2-1.3	0.1-0.8	.10	.37			
	36-80	20-35	30-62	18-35	1.20-1.45	2-20	0.05-0.12	0.2-2.0	0.1-0.8	.10	.28			
BrC2:														
Brandon-------------	0-1	0-15	58-88	12-27	1.20-1.40	0.6-2	0.18-0.23	0.5-1.4	1.0-2.0	.43	.43	4	5	56
	1-29	0-20	45-82	18-35	1.20-1.45	0.6-2	0.18-0.23	0.8-2.2	0.5-2.0	.37	.37			
	29-36	15-30	43-67	18-27	1.20-1.45	2-20	0.05-0.12	0.2-1.3	0.1-0.8	.10	.37			
	36-80	20-35	30-62	18-35	1.20-1.45	2-20	0.05-0.12	0.2-2.0	0.1-0.8	.10	.28			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
BrC3:														
Brandon-------------	0-4	0-15	50-73	27-35	1.20-1.40	0.6-2	0.18-0.23	1.3-2.2	1.0-2.0	.32	.32	3	6	48
	4-29	0-20	45-82	18-40	1.20-1.45	0.6-2	0.18-0.23	0.8-2.8	0.5-2.0	.37	.37			
	29-36	15-30	43-67	18-27	1.20-1.45	2-20	0.05-0.12	0.2-1.3	0.1-0.8	.10	.37			
	36-80	20-35	30-62	18-35	1.20-1.45	2-20	0.05-0.12	0.2-2.0	0.1-0.8	.10	.28			
CaB2:														
Calloway------------	0-6	0-15	58-90	10-27	1.40-1.55	0.6-2	0.20-0.23	0.5-2.0	0.5-2.0	.43	.43	4	6	48
	6-21	0-15	58-90	10-27	1.40-1.55	0.6-2	0.20-0.23	0.5-2.0	0.5-2.0	.49	.49			
	21-80	0-15	53-90	10-32	1.35-1.55	0.06-0.2	0.09-0.12	0.6-3.4	0.0-0.3	.55	.55			
CkA:														
Calloway------------	0-6	0-15	58-90	10-27	1.40-1.55	0.6-2	0.20-0.23	0.5-2.0	0.5-2.0	.43	.43	4	6	48
	6-21	0-15	58-90	10-27	1.40-1.55	0.6-2	0.20-0.23	0.5-2.0	0.5-2.0	.49	.49			
	21-80	0-15	53-90	10-32	1.35-1.55	0.06-0.2	0.09-0.12	0.6-3.4	0.0-0.3	.55	.55			
Kurk----------------	0-7	0-15	63-88	12-22	1.30-1.50	0.6-2	0.20-0.24	0.9-2.0	0.5-3.0	.49	.49	5	5	56
	7-21	0-15	70-100	0-22	1.30-1.50	0.6-2	0.20-0.23	0.0-2.0	0.3-1.0	.64	.64			
	21-56	0-15	50-75	25-35	1.40-1.60	0.2-0.6	0.16-0.20	1.7-4.0	0.0-0.5	.43	.43			
	56-80	0-40	35-70	15-30	1.50-1.70	0.2-0.6	0.06-0.20	0.9-3.0	0.0-0.5	.49	.49			
Cl:														
Cascilla------------	0-8	10-30	50-85	5-20	1.40-1.50	0.6-2	0.18-0.22	0.2-1.0	2.0-3.0	.43	.43	5	5	56
	8-65	10-23	50-85	5-27	1.45-1.50	0.6-2	0.16-0.20	0.2-2.3	1.0-3.0	.43	.43			
	65-80	30-70	5-65	5-25	1.40-1.50	0.6-2	0.16-0.20	0.2-1.6	1.0-3.0	.28	.28			
Cn:														
Chenneby------------	0-8	3-15	58-85	12-27	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	0.5-3.0	.43	.43	5	5	56
	8-57	5-30	35-83	12-35	1.30-1.50	0.6-2	0.15-0.20	0.0-2.9	0.5-3.0	.49	.49			
	57-80	30-80	5-68	2-15	1.30-1.50	0.6-2	0.05-0.20	0.1-0.9	0.5-3.0	.43	.43			
CVA:														
Chenneby------------	0-8	3-15	58-85	12-27	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	0.5-3.0	.43	.43	5	5	56
	8-57	5-30	35-83	12-35	1.30-1.50	0.6-2	0.15-0.20	0.0-2.9	0.5-3.0	.49	.49			
	57-80	30-80	5-68	2-15	1.30-1.50	0.6-2	0.05-0.20	0.1-0.9	0.5-3.0	.43	.43			
Enville-------------	0-5	0-50	50-75	0-27	1.30-1.45	0.6-2	0.15-0.20	0.0-2.9	0.5-2.0	.49	.49	5	5	56
	5-13	6-30	50-88	6-20	1.30-1.45	0.6-2	0.06-0.18	0.0-2.9	0.5-3.0	.49	.49			
	13-45	50-88	0-45	5-12	1.20-1.40	2-6	0.09-0.12	0.3-0.8	0.5-2.0	.20	.20			
	45-80	75-90	0-25	0-17	1.20-1.40	2-6	0.06-0.10	0.0-2.9	0.5-2.0	.17	.24			
Arkabutla-----------	0-7	5-20	53-85	10-27	1.40-1.50	0.6-2	0.20-0.22	0.5-2.1	0.2-1.0	.49	.49	5	6	48
	7-36	5-25	40-75	20-35	1.45-1.55	0.6-2	0.18-0.21	1.0-3.0	1.0-3.0	.49	.49			
	36-80	10-30	50-85	5-20	1.40-1.50	0.6-2	0.20-0.22	0.2-1.6	1.0-3.0	.49	.49			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors Kw	Kf	T	Wind erodibility group	Wind erodibility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
DaC3:														
Deanburg------------	0-6	25-45	20-65	10-35	1.40-1.60	0.6-2	0.15-0.20	0.7-3.9	0.0-0.5	.32	.32	2	6	48
	6-30	35-65	0-50	15-35	1.40-1.60	0.6-2	0.10-0.20	1.1-3.9	0.0-0.5	.20	.20			
	30-80	75-90	0-23	2-10	1.30-1.50	2-20	0.02-0.10	0.1-0.7	0.0-0.5	.05	.05			
DeB3:														
Deanburg------------	0-3	28-45	27-57	15-28	1.40-1.60	0.6-2	0.15-0.20	1.1-2.8	0.0-0.5	.32	.32	2	6	48
	3-23	30-65	0-55	15-35	1.40-1.60	0.6-2	0.10-0.20	1.1-3.9	0.0-0.5	.24	.24			
	23-30	55-85	0-45	0-15	1.30-1.50	2-20	0.02-0.10	0.0-1.2	0.0-0.5	.10	.10			
	30-80	70-88	0-30	0-12	1.30-1.50	2-20	0.02-0.10	0.0-0.9	0.0-0.5	.02	.02			
DeC2:														
Deanburg------------	0-3	28-45	27-57	15-28	1.40-1.60	0.6-2	0.15-0.20	1.1-2.8	0.0-0.5	.32	.32	3	6	48
	3-23	30-65	0-55	15-35	1.40-1.60	0.6-2	0.10-0.20	1.1-3.9	0.0-0.5	.24	.24			
	23-30	55-85	0-45	0-15	1.30-1.50	2-20	0.02-0.10	0.0-1.2	0.0-0.5	.10	.10			
	30-80	70-88	0-30	0-12	1.30-1.50	2-20	0.02-0.10	0.0-0.9	0.0-0.5	.02	.02			
DnB2:														
Deanburg------------	0-6	10-35	40-80	10-25	1.40-1.60	0.6-2	0.15-0.20	0.7-2.4	0.0-0.5	.43	.43	3	5	56
	6-32	30-65	0-55	15-35	1.40-1.60	0.6-2	0.10-0.20	1.1-3.9	0.0-0.5	.24	.24			
	32-40	55-85	0-45	0-15	1.30-1.50	2-20	0.02-0.10	0.0-1.2	0.0-0.5	.10	.10			
	40-80	70-88	0-30	0-12	1.30-1.50	2-20	0.02-0.10	0.0-0.9	0.0-0.5	.02	.02			
DtB2:														
Dulac---------------	0-5	0-15	58-88	12-27	1.30-1.55	0.6-2	0.20-0.22	0.5-1.4	0.5-2.0	.55	.55	3	5	56
	5-19	0-17	50-65	18-35	1.40-1.70	0.6-2	0.20-0.22	1.4-2.4	0.1-1.0	.49	.49			
	19-30	0-20	45-82	18-35	1.55-1.80	0.00-0.06	0.08-0.10	0.9-2.5	0.0-0.5	.55	.55			
	30-33	15-25	40-65	20-35	1.55-1.80	0.06-0.2	0.10-0.13	0.8-2.4	0.1-0.5	.43	.43			
	33-64	15-25	20-45	40-55	1.25-1.60	0.2-0.6	0.10-0.14	2.4-5.3	0.1-0.5	.20	.20			
	64-80	---	---	---	---	0.00-0.06	0.00-0.00	---	0.0-0.0	---	---			
Tippah--------------	0-5	0-15	50-88	12-35	1.30-1.55	0.6-2	0.20-0.22	0.6-3.2	0.5-2.0	.49	.49	5	5	56
	5-20	0-15	50-88	12-35	1.40-1.70	0.6-2	0.19-0.21	0.7-4.0	0.0-0.5	.49	.49			
	20-80	15-45	0-50	35-55	1.25-1.70	0.06-0.2	0.16-0.18	3.2-9.2	0.0-0.5	.32	.32			
DtB3:														
Dulac---------------	0-3	0-15	50-88	12-35	1.30-1.55	0.6-2	0.20-0.22	0.5-2.2	0.5-2.0	.55	.55	2	5	56
	3-15	0-17	50-65	18-35	1.40-1.70	0.6-2	0.20-0.22	1.4-2.4	0.1-1.0	.49	.49			
	15-30	0-20	45-82	18-35	1.55-1.80	0.00-0.06	0.08-0.10	0.9-2.5	0.0-0.5	.55	.55			
	30-33	15-25	40-65	20-35	1.55-1.80	0.06-0.2	0.10-0.13	0.8-2.4	0.1-0.5	.43	.43			
	33-64	15-25	20-45	40-55	1.25-1.60	0.2-0.6	0.10-0.14	2.4-5.3	0.1-0.5	.20	.20			
	64-80	---	---	---	---	0.00-0.06	0.00-0.00	---	0.0-0.0	---	---			
Tippah--------------	0-3	0-15	50-88	12-35	1.30-1.55	0.6-2	0.20-0.22	0.6-3.2	0.5-2.0	.49	.49	4	5	56
	3-34	0-15	50-88	12-35	1.40-1.70	0.6-2	0.19-0.21	0.7-4.0	0.0-0.5	.55	.55			
	34-80	15-45	0-50	35-55	1.25-1.70	0.06-0.2	0.16-0.18	3.2-9.2	0.0-0.5	.32	.32			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
DtC2:														
Dulac----------------	0-5	0-15	58-88	12-27	1.30-1.55	0.6-2	0.20-0.22	0.5-1.4	0.5-2.0	.55	.55	3	5	56
	5-19	0-17	50-65	18-35	1.40-1.70	0.6-2	0.20-0.22	1.4-2.4	0.1-1.0	.49	.49			
	19-30	0-20	45-82	18-35	1.55-1.80	0.00-0.06	0.08-0.10	0.9-2.5	0.0-0.5	.55	.55			
	30-33	15-25	40-65	20-35	1.55-1.80	0.06-0.2	0.10-0.13	0.8-2.4	0.1-0.5	.43	.43			
	33-64	15-25	20-45	40-55	1.25-1.60	0.2-0.6	0.10-0.14	2.4-5.3	0.1-0.5	.20	.20			
	64-80	---	---	---	---	0.00-0.06	0.00-0.00	---	0.0-0.0	---	---			
Tippah---------------	0-5	0-15	50-88	12-35	1.30-1.55	0.6-2	0.20-0.22	0.6-3.2	0.5-2.0	.49	.49	5	5	56
	5-27	0-15	50-88	12-35	1.40-1.70	0.6-2	0.19-0.21	0.7-4.0	0.0-0.5	.49	.49			
	27-80	15-45	0-50	35-55	1.25-1.70	0.06-0.2	0.16-0.18	3.2-9.2	0.0-0.5	.32	.32			
DtC3:														
Dulac----------------	0-3	0-15	50-88	12-35	1.30-1.55	0.6-2	0.20-0.22	0.5-2.2	0.5-2.0	.55	.55	2	5	56
	3-15	0-17	50-65	18-35	1.40-1.70	0.6-2	0.20-0.22	1.4-2.4	0.1-1.0	.49	.49			
	15-30	0-20	45-82	18-35	1.55-1.80	0.00-0.06	0.08-0.10	0.9-2.5	0.0-0.5	.55	.55			
	30-33	15-25	40-65	20-35	1.55-1.80	0.06-0.2	0.10-0.13	0.8-2.4	0.1-0.5	.43	.43			
	33-64	15-25	20-45	40-55	1.25-1.60	0.2-0.6	0.10-0.14	2.4-5.3	0.1-0.5	.20	.20			
	64-80	---	---	---	---	0.00-0.06	0.00-0.00	---	0.0-0.0	---	---			
Tippah---------------	0-3	0-15	50-88	12-35	1.30-1.55	0.6-2	0.20-0.22	0.6-3.2	0.5-2.0	.49	.49	4	5	56
	3-34	0-15	50-88	12-35	1.40-1.70	0.6-2	0.19-0.21	0.7-4.0	0.0-0.5	.55	.55			
	34-80	15-45	0-50	35-55	1.25-1.70	0.06-0.2	0.16-0.18	3.2-9.2	0.0-0.5	.32	.32			
DtD2:														
Dulac----------------	0-5	0-15	58-88	12-27	1.30-1.55	0.6-2	0.20-0.22	0.5-1.4	0.5-2.0	.55	.55	3	5	56
	5-19	0-17	50-65	18-35	1.40-1.70	0.6-2	0.20-0.22	1.4-2.4	0.1-1.0	.49	.49			
	19-30	0-20	45-82	18-35	1.55-1.80	0.00-0.06	0.08-0.10	0.9-2.5	0.0-0.5	.55	.55			
	30-33	15-25	40-65	20-35	1.55-1.80	0.06-0.2	0.10-0.13	0.8-2.4	0.1-0.5	.43	.43			
	33-64	15-25	20-45	40-55	1.25-1.60	0.2-0.6	0.10-0.14	2.4-5.3	0.1-0.5	.20	.20			
	64-80	---	---	---	---	0.00-0.06	0.00-0.00	---	0.0-0.0	---	---			
Tippah---------------	0-5	0-15	50-88	12-35	1.30-1.55	0.6-2	0.20-0.22	0.6-3.2	0.5-2.0	.49	.49	5	5	56
	5-27	0-15	50-88	12-35	1.40-1.70	0.6-2	0.19-0.21	0.7-4.0	0.0-0.5	.49	.49			
	27-80	15-45	0-50	35-55	1.25-1.70	0.06-0.2	0.16-0.18	3.2-9.2	0.0-0.5	.32	.32			
DtD3:														
Dulac----------------	0-3	0-15	50-88	12-35	1.30-1.55	0.6-2	0.20-0.22	0.5-2.2	0.5-2.0	.55	.55	2	5	56
	3-15	0-17	50-65	18-35	1.40-1.70	0.6-2	0.20-0.22	1.4-2.4	0.1-1.0	.49	.49			
	15-30	0-20	45-82	18-35	1.55-1.80	0.00-0.06	0.08-0.10	0.9-2.5	0.0-0.5	.55	.55			
	30-33	15-25	40-65	20-35	1.55-1.80	0.06-0.2	0.10-0.13	0.8-2.4	0.1-0.5	.43	.43			
	33-64	15-25	20-45	40-55	1.25-1.60	0.2-0.6	0.10-0.14	2.4-5.3	0.1-0.5	.20	.20			
	64-80	---	---	---	---	0.00-0.06	0.00-0.00	---	0.0-0.0	---	---			
Tippah---------------	0-3	0-15	50-88	12-35	1.30-1.55	0.6-2	0.20-0.22	0.6-3.2	0.5-2.0	.49	.49	4	5	56
	3-34	0-15	50-88	12-35	1.40-1.70	0.6-2	0.19-0.21	0.7-4.0	0.0-0.5	.55	.55			
	34-80	15-45	0-50	35-55	1.25-1.70	0.06-0.2	0.16-0.18	3.2-9.2	0.0-0.5	.32	.32			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
Ea:														
Enville-------------	0-5	0-50	50-75	0-27	1.30-1.45	0.6-2	0.15-0.20	0.0-2.9	0.5-2.0	.49	.49	5	5	56
	5-13	6-30	50-88	6-20	1.30-1.45	0.6-2	0.06-0.18	0.0-2.9	0.5-3.0	.49	.49			
	13-45	50-88	0-45	5-12	1.20-1.40	2-6	0.09-0.12	0.0-2.9	0.5-2.0	.20	.20			
	45-80	75-90	0-25	0-17	1.20-1.40	2-6	0.06-0.10	0.0-2.9	0.5-2.0	.17	.24			
Eb:														
Enville-------------	0-5	0-50	50-75	0-27	1.30-1.45	0.6-2	0.15-0.20	0.0-2.9	0.5-2.0	.49	.49	5	5	56
	5-13	6-30	50-88	6-20	1.30-1.45	0.6-2	0.06-0.18	0.0-2.9	0.5-3.0	.49	.49			
	13-45	50-88	0-45	5-12	1.20-1.40	2-6	0.09-0.12	0.3-0.8	0.5-2.0	.20	.20			
	45-80	75-90	0-25	0-17	1.20-1.40	2-6	0.06-0.10	0.0-2.9	0.5-2.0	.17	.24			
Bibb----------------	0-8	20-50	32-78	2-18	1.40-1.65	0.6-2	0.15-0.20	0.0-2.9	1.0-3.0	.43	.43	5	5	56
	8-80	45-80	2-55	0-18	1.45-1.75	0.6-2	0.10-0.20	0.0-2.9	0.5-1.0	.37	.37			
FaB2:														
Falkner-------------	0-7	10-23	50-85	5-27	1.40-1.55	0.2-0.6	0.21-0.24	0.3-1.8	0.5-3.0	.49	.49	5	5	56
	7-22	0-25	40-80	20-35	1.40-1.60	0.2-0.6	0.19-0.22	1.3-2.8	0.0-0.5	.49	.49			
	22-77	0-20	20-62	38-60	1.40-1.50	0.06-0.2	0.16-0.18	4.3-7.8	0.0-0.5	.32	.32			
	77-80	---	---	---	---	0.00-0.06	0.00-0.00	---	0.0-0.0	---	---			
FeA:														
Feliciana-----------	0-12	3-15	58-89	8-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.0	1.0-3.0	.49	.49	5	5	56
	12-63	3-10	55-77	20-35	1.30-1.50	0.6-2	0.20-0.22	1.7-3.9	0.3-0.8	.49	.49			
	63-80	0-50	50-88	0-27	1.30-1.50	0.6-2	0.20-0.23	0.0-2.5	0.0-0.5	.43	.43			
FeB2:														
Feliciana-----------	0-7	3-15	58-89	8-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.0	1.0-3.0	.49	.49	5	5	56
	7-52	3-10	55-77	20-35	1.30-1.50	0.6-2	0.20-0.22	1.7-3.9	0.3-0.8	.49	.49			
	52-80	0-50	50-88	0-27	1.30-1.50	0.6-2	0.20-0.23	0.0-2.5	0.0-0.5	.43	.43			
GrA:														
Grenada-------------	0-9	0-15	58-88	12-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.7	0.5-2.0	.49	.49	4	5	56
	9-18	0-15	58-88	12-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.7	0.2-0.5	.49	.49			
	18-32	0-15	58-88	12-27	1.35-1.50	0.6-2	0.20-0.23	0.7-2.5	0.0-0.5	.55	.55			
	32-80	0-20	40-85	15-40	1.45-1.60	0.06-0.2	0.10-0.12	0.9-5.1	0.0-0.3	.55	.55			
GrB2:														
Grenada-------------	0-6	0-15	58-88	12-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.7	0.5-2.0	.49	.49	4	5	56
	6-18	0-15	58-88	12-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.7	0.2-0.5	.49	.49			
	18-32	0-15	58-88	12-27	1.35-1.50	0.6-2	0.20-0.23	0.7-2.5	0.0-0.5	.55	.55			
	32-80	0-20	40-85	15-40	1.45-1.60	0.06-0.2	0.10-0.12	0.9-5.1	0.0-0.3	.55	.55			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
HgF:														
Hapludults----------	0-4	10-30	50-85	5-20	1.40-1.50	0.6-2	0.18-0.22	0.2-1.0	0.0-0.8	.55	.55	4	5	56
	4-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.6	0.0-0.5	.28	.28			
Gullied land.														
HtE:														
Hawthorne-----------	0-4	10-23	50-80	10-27	1.40-1.50	2-6	0.14-0.18	0.3-1.1	0.5-2.0	.17	.32	3	6	48
	4-11	10-27	50-80	10-23	1.40-1.55	2-6	0.14-0.19	0.5-2.2	0.3-0.8	.20	.43			
	11-36	0-50	40-80	10-40	1.40-1.55	2-6	0.05-0.10	0.2-1.3	0.0-0.5	.10	.43			
	36-80	---	---	---	---	0.00-0.2	0.00-0.00	---	0.0-0.0	---	---			
HTF:														
Hawthorne-----------	0-4	10-23	50-80	10-27	1.40-1.50	2-6	0.14-0.18	0.3-1.1	0.5-2.0	.17	.32	3	6	48
	4-11	10-27	50-80	10-23	1.40-1.55	2-6	0.14-0.19	0.5-2.2	0.3-0.8	.20	.43			
	11-36	0-50	40-80	10-40	1.40-1.55	2-6	0.05-0.10	0.2-1.3	0.0-0.5	.10	.43			
	36-80	---	---	---	---	0.00-0.2	0.00-0.00	---	0.0-0.0	---	---			
Sengtown------------	0-3	0-23	50-88	12-27	1.35-1.55	0.6-2	0.10-0.16	0.3-1.2	1.0-2.0	.20	.32	5	7	38
	3-6	5-35	25-77	18-40	1.35-1.55	0.6-2	0.10-0.15	0.6-2.7	0.0-0.5	.28	.43			
	6-63	10-25	15-50	40-60	1.35-1.60	0.6-2	0.08-0.12	1.8-5.5	0.0-0.5	.10	.20			
	63-80	10-30	10-50	40-60	1.35-1.60	0.6-2	0.08-0.12	1.1-4.1	0.0-0.3	.10	.20			
Sugargrove----------	0-2	0-23	50-88	12-27	1.20-1.40	0.6-6	0.14-0.19	0.3-1.2	1.0-3.0	.15	.32	3	7	38
	2-6	0-23	50-82	18-27	1.30-1.50	0.6-6	0.14-0.19	0.5-2.3	0.0-0.5	.20	.43			
	6-28	0-25	40-82	18-35	1.30-1.50	0.6-6	0.14-0.19	0.3-2.1	0.0-0.5	.24	.43			
	28-80	---	---	---	---	0.00-0.2	0.00-0.00	---	0.0-0.0	---	---			
HuB:														
Humphreys-----------	0-6	20-29	50-68	12-21	1.35-1.50	2-6	0.10-0.15	0.3-1.2	1.0-3.0	.20	.28	4	7	38
	6-50	0-50	15-80	18-35	1.35-1.55	2-6	0.09-0.14	0.6-2.1	0.0-0.5	.24	.37			
	50-57	0-50	15-80	18-35	1.40-1.60	2-20	0.06-0.12	0.3-2.1	0.0-0.5	.15	.37			
	57-80	0-52	15-80	18-35	1.40-1.60	2-20	0.06-0.12	0.2-2.1	0.0-0.5	.05	.28			
HuC:														
Humphreys-----------	0-6	20-29	50-68	12-21	1.35-1.50	2-6	0.10-0.15	0.3-1.2	1.0-3.0	.20	.28	4	7	38
	6-50	0-50	15-80	18-35	1.35-1.55	2-6	0.09-0.14	0.6-2.1	0.0-0.5	.24	.37			
	50-57	0-50	15-80	18-35	1.40-1.60	2-20	0.06-0.12	0.3-2.1	0.0-0.5	.15	.37			
	57-80	0-52	15-80	18-35	1.40-1.60	2-20	0.06-0.12	0.2-2.1	0.0-0.5	.05	.28			
Ik:														
Iuka----------------	0-5	25-45	40-70	5-15	1.25-1.45	0.6-2	0.15-0.20	0.0-2.9	0.5-2.0	.43	.43	5	5	56
	5-11	25-40	42-70	5-18	1.25-1.45	0.6-2	0.10-0.20	0.0-2.9	0.5-1.5	.49	.49			
	11-30	45-82	0-50	5-18	1.25-1.50	0.6-2	0.10-0.20	0.3-1.2	0.2-1.5	.37	.37			
	30-80	45-55	27-50	5-18	1.25-1.45	0.6-2	0.10-0.20	0.0-2.9	0.2-1.4	.43	.43			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodibility group	Wind erodibility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
KrA:														
Kurk	0-7	0-15	63-88	12-22	1.30-1.50	0.6-2	0.20-0.24	0.9-2.0	0.5-3.0	.49	.49	5	5	56
	7-21	0-15	70-100	0-22	1.30-1.50	0.6-2	0.20-0.23	0.0-2.0	0.3-1.0	.64	.64			
	21-56	0-15	50-75	25-35	1.40-1.60	0.2-0.6	0.16-0.20	1.7-4.0	0.0-0.5	.43	.43			
	56-80	0-40	35-70	15-30	1.50-1.70	0.2-0.6	0.06-0.20	0.9-3.0	0.0-0.5	.49	.49			
LaB2:														
Lax	0-2	0-25	50-88	12-25	1.35-1.45	0.6-2	0.18-0.22	0.3-1.2	0.5-2.0	.49	.49	4	5	56
	2-8	0-20	40-82	18-40	1.35-1.55	0.6-2	0.16-0.20	0.7-4.1	0.0-0.5	.49	.49			
	8-26	0-15	45-82	18-40	1.60-1.79	0.00-0.06	0.00-0.02	0.7-2.5	0.0-0.5	.55	.55			
	26-36	0-20	40-82	18-40	1.60-1.79	0.00-0.06	0.00-0.02	0.4-2.1	0.0-0.5	.28	.55			
	36-80	0-15	50-82	18-35	1.60-1.79	0.00-0.06	0.00-0.02	0.3-2.1	0.0-0.2	.15	.55			
LaC2:														
Lax	0-2	0-25	50-88	12-25	1.35-1.45	0.6-2	0.18-0.22	0.3-1.2	0.5-2.0	.49	.49	2	6	48
	2-8	0-20	40-82	18-40	1.35-1.55	0.6-2	0.16-0.20	0.7-4.1	0.0-0.5	.49	.49			
	8-26	0-15	45-82	18-40	1.60-1.79	0.00-0.06	0.00-0.02	0.7-2.5	0.0-0.5	.55	.55			
	26-36	0-20	40-82	18-40	1.60-1.79	0.00-0.06	0.00-0.02	0.4-2.1	0.0-0.5	.28	.55			
	36-80	0-15	50-82	18-35	1.60-1.79	0.00-0.06	0.00-0.02	0.3-2.1	0.0-0.2	.15	.55			
LbC3:														
Lax	0-5	0-20	40-88	12-40	1.35-1.45	0.6-2	0.18-0.22	0.3-2.8	0.5-2.0	.37	.37	2	6	48
	5-16	0-15	45-82	18-40	1.60-1.79	0.00-0.06	0.00-0.02	0.7-2.9	0.0-0.5	.43	.43			
	16-36	0-20	40-82	18-40	1.60-1.79	0.00-0.06	0.00-0.02	0.4-2.1	0.0-0.5	.28	.55			
	36-80	0-15	50-82	18-35	1.60-1.79	0.00-0.06	0.00-0.02	0.3-2.1	0.0-0.2	.15	.55			
LeA:														
Lexington	0-9	0-15	58-88	12-27	1.30-1.50	0.6-2	0.17-0.22	0.6-2.0	0.5-2.0	.43	.43	5	6	48
	9-37	0-15	50-80	20-35	1.40-1.55	0.6-2	0.16-0.21	1.1-4.0	0.0-0.5	.43	.43			
	37-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			
LeB2:														
Lexington	0-6	0-15	58-88	12-27	1.30-1.50	0.6-2	0.17-0.22	0.6-2.0	0.5-2.0	.43	.43	5	6	48
	6-29	0-15	50-80	20-35	1.40-1.55	0.6-2	0.16-0.21	1.1-4.0	0.0-0.5	.43	.43			
	29-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			
LeC2:														
Lexington	0-6	0-15	58-88	12-27	1.30-1.50	0.6-2	0.17-0.22	0.6-2.0	0.5-2.0	.43	.43	5	6	48
	6-29	0-15	50-80	20-35	1.40-1.55	0.6-2	0.16-0.21	1.1-4.0	0.0-0.5	.43	.43			
	29-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			
LeD2:														
Lexington	0-6	0-15	58-88	12-27	1.30-1.50	0.6-2	0.17-0.22	0.6-2.0	0.5-2.0	.43	.43	5	6	48
	6-29	0-15	50-80	20-35	1.40-1.55	0.6-2	0.16-0.21	1.1-4.0	0.0-0.5	.43	.43			
	29-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi-bility group	Wind erodi-bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
LnB3:														
Lexington-----------	0-3	0-15	50-76	24-35	1.30-1.50	0.6-2	0.17-0.22	1.4-3.2	0.5-2.0	.37	.37	4	6	48
	3-29	0-15	45-80	20-40	1.40-1.55	0.6-2	0.16-0.21	1.1-5.1	0.0-0.5	.37	.37			
	29-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			
LnC3:														
Lexington-----------	0-3	0-15	50-76	24-35	1.30-1.50	0.6-2	0.17-0.22	1.4-3.2	0.5-2.0	.37	.37	4	6	48
	3-29	0-15	45-80	20-40	1.40-1.55	0.6-2	0.16-0.21	1.1-5.1	0.0-0.5	.37	.37			
	29-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			
LnD3:														
Lexington-----------	0-3	0-15	50-76	24-35	1.30-1.50	0.6-2	0.17-0.22	1.4-3.2	0.5-2.0	.37	.37	4	6	48
	3-29	0-15	45-80	20-40	1.40-1.55	0.6-2	0.16-0.21	1.1-5.1	0.0-0.5	.37	.37			
	29-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			
Lo:														
Lobelville----------	0-6	20-27	50-65	15-23	1.30-1.45	0.6-2	0.14-0.19	0.9-1.7	1.0-2.0	.37	.37	4	6	48
	6-14	2-23	50-80	18-27	1.35-1.50	0.6-2	0.14-0.19	0.8-2.3	0.5-1.0	.32	.49			
	14-48	23-40	33-70	7-27	1.35-1.50	2-6	0.04-0.10	0.3-1.8	0.0-0.5	.24	.43			
	48-80	20-45	28-80	0-27	1.35-1.55	2-6	0.04-0.10	0.0-1.4	0.0-0.5	.15	.43			
LrA:														
Loring--------------	0-8	3-15	58-85	12-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.7	0.5-2.0	.49	.49	4	5	56
	8-26	3-15	58-85	12-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.7	0.2-0.5	.55	.55			
	26-49	0-15	45-85	15-40	1.40-1.60	0.06-0.2	0.20-0.22	0.4-4.5	0.1-0.5	.49	.49			
	49-80	12-46	27-80	8-27	1.50-1.70	0.06-0.2	0.06-0.13	0.4-2.5	0.0-0.2	.55	.55			
LrB2:														
Loring--------------	0-8	3-15	58-85	12-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.7	0.5-2.0	.49	.49	4	5	56
	8-27	3-15	58-85	12-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.7	0.2-0.5	.55	.55			
	27-52	0-15	45-85	15-40	1.40-1.60	0.06-0.2	0.20-0.22	0.4-4.5	0.1-0.5	.49	.49			
	52-80	12-46	27-80	8-27	1.50-1.70	0.06-0.2	0.06-0.13	0.4-2.5	0.0-0.2	.55	.55			
LrC2:														
Loring--------------	0-8	3-15	58-85	12-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.7	0.5-2.0	.49	.49	4	5	56
	8-27	3-15	58-85	12-27	1.30-1.50	0.6-2	0.20-0.23	0.5-2.7	0.2-0.5	.55	.55			
	27-52	0-15	45-85	15-40	1.40-1.60	0.06-0.2	0.20-0.22	0.4-4.5	0.1-0.5	.49	.49			
	52-80	12-46	27-80	8-27	1.50-1.70	0.06-0.2	0.06-0.13	0.4-2.5	0.0-0.2	.55	.55			
LuE2:														
Luverne-------------	0-4	50-85	0-43	7-15	1.35-1.65	2-6	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28	5	3	86
	4-12	50-85	0-43	7-15	1.35-1.65	2-6	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28			
	12-37	15-35	0-50	35-65	1.25-1.55	0.2-0.6	0.12-0.18	3.0-5.9	0.1-0.5	.24	.24			
	37-71	15-35	0-50	35-65	1.25-1.55	0.2-0.6	0.12-0.18	2.2-7.1	0.0-0.2	.32	.32			
	71-80	40-75	0-50	10-25	1.35-1.65	0.2-0.6	0.05-0.10	0.5-1.5	0.0-0.2	.43	.43			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
Ng:														
Nugent---------------	0-8	70-85	7-28	2-8	1.20-1.40	6-20	0.07-0.10	0.0-2.9	0.5-2.0	.17	.17	5	2	134
	8-80	45-85	5-53	2-10	1.20-1.40	2-6	0.07-0.13	0.2-1.3	0.3-1.0	.24	.24			
Ok:														
Ochlockonee----------	0-8	43-85	5-50	7-22	1.40-1.60	2-6	0.10-0.20	0.0-2.9	0.5-2.0	.37	.37	5	3	86
	8-58	43-80	2-49	8-18	1.40-1.60	0.6-2	0.10-0.20	0.5-1.2	0.5-1.0	.37	.37			
	58-80	30-75	7-66	3-18	1.40-1.70	2-6	0.06-0.12	0.0-2.9	0.5-1.0	.37	.37			
PaB2:														
Paden----------------	0-7	2-18	50-80	18-32	1.30-1.45	0.6-2	0.18-0.23	0.8-1.9	0.5-3.0	.49	.49	3	5	56
	7-18	2-15	50-80	18-35	1.40-1.55	0.6-2	0.18-0.22	0.9-2.5	0.0-0.5	.49	.49			
	18-30	2-20	50-80	18-35	1.50-1.65	0.6-2	0.14-0.20	0.9-2.5	0.0-0.3	.49	.49			
	30-80	2-25	40-80	18-35	1.60-1.80	0.00-0.2	0.01-0.01	0.9-2.5	0.0-0.3	.49	.49			
PaC2:														
Paden----------------	0-7	2-18	50-80	18-32	1.30-1.45	0.6-2	0.18-0.23	0.8-1.9	0.5-3.0	.49	.49	3	5	56
	7-18	2-15	50-80	18-35	1.40-1.55	0.6-2	0.18-0.22	0.9-2.5	0.0-0.5	.49	.49			
	18-30	2-20	50-80	18-35	1.50-1.65	0.6-2	0.14-0.20	0.9-2.5	0.0-0.3	.49	.49			
	30-80	2-25	40-80	18-35	1.60-1.80	0.00-0.2	0.01-0.01	0.9-2.5	0.0-0.3	.49	.49			
PaC3:														
Paden----------------	0-3	2-18	50-80	18-32	1.30-1.45	0.6-2	0.18-0.23	0.8-1.9	0.5-3.0	.49	.49	2	5	56
	3-18	2-15	50-80	18-35	1.40-1.55	0.6-2	0.18-0.22	0.9-2.5	0.0-0.5	.49	.49			
	18-30	2-20	50-80	18-35	1.50-1.65	0.6-2	0.14-0.20	0.9-2.5	0.0-0.3	.49	.49			
	30-80	2-25	40-80	18-35	1.60-1.80	0.00-0.2	0.01-0.01	0.9-2.5	0.0-0.3	.49	.49			
Pc:														
Pits, clay.														
Pg:														
Pits, gravel or sand.														
PoA:														
Providence-----------	0-9	0-15	58-88	12-27	1.30-1.40	0.6-2	0.20-0.22	0.6-2.0	0.5-3.0	.43	.43	4	5	56
	9-30	0-15	58-88	12-27	1.40-1.50	0.6-2	0.20-0.22	0.7-2.0	0.5-1.0	.55	.55			
	30-42	0-20	40-73	27-40	1.40-1.60	0.00-0.06	0.08-0.10	2.0-5.1	0.0-0.5	.49	.49			
	42-66	0-52	28-80	12-27	1.40-1.60	0.2-0.6	0.08-0.10	0.7-2.5	0.0-0.3	.37	.37			
	66-80	45-65	0-35	20-35	1.40-1.60	0.1-1	0.15-0.17	1.2-4.0	0.0-0.3	.32	.32			
PoB2:														
Providence-----------	0-6	0-15	58-88	12-27	1.30-1.40	0.6-2	0.20-0.22	0.6-2.0	0.5-3.0	.49	.49	3	5	56
	6-18	0-15	58-88	12-27	1.40-1.50	0.6-2	0.20-0.22	0.7-2.0	0.5-1.0	.55	.55			
	18-32	0-20	40-73	27-40	1.40-1.60	0.00-0.06	0.08-0.10	2.0-5.1	0.0-0.5	.49	.49			
	32-62	0-52	28-80	12-27	1.40-1.60	0.2-0.6	0.08-0.10	0.7-2.5	0.0-0.3	.37	.37			
	62-80	45-65	0-35	20-35	1.40-1.60	0.1-1	0.15-0.17	1.2-4.0	0.0-0.3	.32	.32			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
PoC2:														
Providence----------	0-6	0-15	58-88	12-27	1.30-1.40	0.6-2	0.20-0.22	0.6-2.0	0.5-3.0	.49	.49	3	5	56
	6-18	0-15	58-88	12-27	1.40-1.50	0.6-2	0.20-0.22	0.7-2.0	0.5-1.0	.55	.55			
	18-32	0-20	40-73	27-40	1.40-1.60	0.00-0.06	0.08-0.10	2.0-5.1	0.0-0.5	.49	.49			
	32-62	0-52	28-80	12-27	1.40-1.60	0.2-0.6	0.08-0.10	0.7-2.5	0.0-0.3	.37	.37			
	62-80	45-65	0-35	20-35	1.40-1.60	0.1-1	0.15-0.17	1.2-4.0	0.0-0.3	.32	.32			
PoD2:														
Providence----------	0-6	0-15	58-88	12-27	1.30-1.40	0.6-2	0.20-0.22	0.6-2.0	0.5-3.0	.49	.49	3	5	56
	6-18	0-15	58-88	12-27	1.40-1.50	0.6-2	0.20-0.22	0.7-2.0	0.5-1.0	.55	.55			
	18-32	0-20	40-73	27-40	1.40-1.60	0.00-0.06	0.08-0.10	2.0-5.1	0.0-0.5	.49	.49			
	32-62	0-52	28-80	12-27	1.40-1.60	0.2-0.6	0.08-0.10	0.7-2.5	0.0-0.3	.37	.37			
	62-80	45-65	0-35	20-35	1.40-1.60	0.1-1	0.15-0.17	1.2-4.0	0.0-0.3	.32	.32			
PrB3:														
Providence----------	0-3	0-15	50-76	24-35	1.30-1.40	0.6-2	0.20-0.22	1.4-3.2	0.5-3.0	.43	.43	2	6	48
	3-15	0-15	45-80	20-40	1.40-1.50	0.6-2	0.20-0.22	1.1-4.0	0.5-1.0	.49	.49			
	15-22	0-20	40-73	27-40	1.40-1.60	0.00-0.06	0.08-0.10	2.0-5.1	0.0-0.5	.49	.49			
	22-58	0-52	28-80	12-27	1.40-1.60	0.2-0.6	0.08-0.10	0.7-2.5	0.0-0.3	.37	.37			
	58-80	45-65	0-35	20-35	1.40-1.60	0.1-1	0.15-0.17	1.2-4.0	0.0-0.3	.32	.32			
PrC3:														
Providence----------	0-3	0-15	50-76	24-35	1.30-1.40	0.6-2	0.20-0.22	1.4-3.2	0.5-3.0	.43	.43	2	6	48
	3-15	0-15	45-80	20-40	1.40-1.50	0.6-2	0.20-0.22	1.1-4.0	0.5-1.0	.49	.49			
	15-22	0-20	40-73	27-40	1.40-1.60	0.00-0.06	0.08-0.10	2.0-5.1	0.0-0.5	.49	.49			
	22-58	0-52	28-80	12-27	1.40-1.60	0.2-0.6	0.08-0.10	0.7-2.5	0.0-0.3	.37	.37			
	58-80	45-65	0-35	20-35	1.40-1.60	0.1-1	0.15-0.17	1.2-4.0	0.0-0.3	.32	.32			
PrD3:														
Providence----------	0-3	0-15	50-76	24-35	1.30-1.40	0.6-2	0.20-0.22	1.4-3.2	0.5-3.0	.43	.43	2	6	48
	3-15	0-15	45-80	20-40	1.40-1.50	0.6-2	0.20-0.22	1.1-4.0	0.5-1.0	.49	.49			
	15-22	0-20	40-73	27-40	1.40-1.60	0.00-0.06	0.08-0.10	2.0-5.1	0.0-0.5	.49	.49			
	22-58	0-52	28-80	12-27	1.40-1.60	0.2-0.6	0.08-0.10	0.7-2.5	0.0-0.3	.37	.37			
	58-80	45-65	0-35	20-35	1.40-1.60	0.1-1	0.15-0.17	1.2-4.0	0.0-0.3	.32	.32			
Pu:														
Pruitton------------	0-6	10-22	50-80	10-28	1.40-1.50	2-6	0.18-0.22	0.5-1.3	2.0-4.0	.32	.32	4	5	56
	6-34	10-28	45-72	18-27	1.45-1.50	2-6	0.16-0.20	0.9-1.3	0.5-1.5	.43	.43			
	34-80	25-52	23-68	7-25	1.35-1.50	2-6	0.05-0.12	0.1-1.1	0.3-1.0	.10	.32			
Re:														
Riverby-------------	0-5	40-52	21-50	10-27	1.20-1.40	2-6	0.08-0.12	0.2-1.7	1.0-2.0	.15	.32	5	7	38
	5-19	70-100	0-30	0-15	1.30-1.60	6-20	0.03-0.06	0.0-0.4	0.0-0.5	.02	.02			
	19-80	70-100	0-30	0-15	1.30-1.60	6-20	0.01-0.06	0.0-0.4	0.0-0.5	.02	.02			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
Re:														
Ennis	0-7	20-30	50-68	12-20	1.30-1.45	2-6	0.10-0.15	0.5-1.3	1.0-3.0	.24	.32	5	6	48
	7-37	0-53	15-80	18-40	1.35-1.50	2-6	0.08-0.15	0.6-1.6	0.2-1.0	.24	.43			
	37-80	35-50	23-57	8-27	1.35-1.50	2-20	0.08-0.15	0.2-1.1	0.0-0.5	.10	.37			
RO:														
Rosebloom	0-6	0-10	55-72	18-35	1.40-1.50	0.6-2	0.18-0.22	1.0-3.0	1.0-3.0	.43	.43	5	6	48
	6-60	0-15	50-82	18-35	1.40-1.55	0.6-2	0.20-0.22	1.0-1.8	0.3-1.3	.49	.49			
	60-80	50-75	5-38	12-20	1.40-1.50	0.6-2	0.18-0.22	0.6-1.2	0.3-1.3	.28	.28			
Bibb	0-8	20-50	32-78	2-18	1.40-1.65	0.6-2	0.15-0.20	0.0-2.9	1.0-3.0	.43	.43	5	5	56
	8-80	45-80	2-55	0-18	1.45-1.75	0.6-2	0.10-0.20	0.0-2.9	0.5-1.0	.37	.37			
RtA:														
Routon	0-6	0-23	50-88	12-27	1.40-1.55	0.6-2	0.20-0.24	0.9-2.7	0.5-2.0	.49	.49	5	6	48
	6-17	0-10	75-100	0-15	1.40-1.55	0.6-2	0.20-0.24	0.1-1.8	0.5-2.0	.64	.64			
	17-51	0-20	40-82	1-40	1.35-1.50	0.06-0.2	0.18-0.22	0.0-4.0	0.5-2.0	.49	.49			
	51-80	0-25	41-88	12-34	1.35-1.55	0.06-0.2	0.20-0.24	0.0-3.8	0.5-2.0	.55	.55			
RuA:														
Routon	0-6	0-23	50-88	12-27	1.40-1.55	0.6-2	0.20-0.24	0.9-2.7	0.5-2.0	.49	.49	5	6	48
	6-17	0-10	75-100	0-15	1.40-1.55	0.6-2	0.20-0.24	0.1-1.8	0.5-2.0	.64	.64			
	17-51	0-20	50-88	1-40	1.35-1.50	0.06-0.2	0.18-0.22	0.0-4.0	0.5-2.0	.49	.49			
	51-80	0-25	41-88	12-34	1.35-1.55	0.06-0.2	0.20-0.24	0.0-3.8	0.5-2.0	.55	.55			
SaC2:														
Saffell	0-2	0-23	50-88	12-27	1.20-1.40	0.6-2	0.18-0.23	0.4-1.1	1.0-2.0	.20	.37	2	7	38
	2-13	0-23	50-82	18-27	1.20-1.45	0.6-2	0.18-0.23	0.9-2.6	0.5-2.0	.24	.49			
	13-51	30-60	5-65	5-35	1.20-1.45	2-20	0.05-0.12	0.1-1.1	0.1-0.8	.05	.24			
	51-80	50-70	10-45	5-20	1.20-1.45	2-20	0.05-0.12	0.1-0.7	0.1-0.8	.02	.20			
Brandon	0-1	0-15	58-88	12-27	1.20-1.40	0.6-2	0.18-0.23	0.5-1.4	1.0-2.0	.43	.43	4	8	0
	1-29	0-20	45-82	18-35	1.20-1.45	0.6-2	0.18-0.23	0.8-2.2	0.5-2.0	.37	.37			
	29-36	15-30	43-67	18-27	1.20-1.45	2-20	0.05-0.12	0.2-1.3	0.1-0.8	.10	.37			
	36-80	20-35	30-62	18-35	1.20-1.45	2-20	0.05-0.12	0.2-2.0	0.1-0.8	.10	.28			
SaE2:														
Saffell	0-2	0-23	50-88	12-27	1.20-1.40	0.6-2	0.18-0.23	0.4-1.1	1.0-2.0	.20	.37	2	7	38
	2-13	0-23	50-82	18-27	1.20-1.45	0.6-2	0.18-0.23	0.9-2.6	0.5-2.0	.24	.49			
	13-51	30-60	5-65	5-35	1.20-1.45	2-20	0.05-0.12	0.1-1.1	0.1-0.8	.05	.24			
	51-80	50-70	10-45	5-20	1.20-1.45	2-20	0.05-0.12	0.1-0.7	0.1-0.8	.02	.20			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
SaE2:														
Brandon-------------	0-1	0-15	58-88	12-27	1.20-1.40	0.6-2	0.18-0.23	0.5-1.4	1.0-2.0	.43	.43	4	8	0
	1-29	0-20	45-82	18-35	1.20-1.45	0.6-2	0.18-0.23	0.8-2.2	0.5-2.0	.37	.37			
	29-36	15-30	43-67	18-27	1.20-1.45	2-20	0.05-0.12	0.2-1.3	0.1-0.8	.10	.37			
	36-80	20-35	30-62	18-35	1.20-1.45	2-20	0.05-0.12	0.2-2.0	0.1-0.8	.10	.28			
SAF:														
Saffell-------------	0-2	0-23	50-88	12-27	1.20-1.40	0.6-2	0.18-0.23	0.4-1.1	1.0-2.0	.20	.37	2	7	38
	2-13	0-23	50-82	18-27	1.20-1.45	0.6-2	0.18-0.23	0.9-2.6	0.5-2.0	.24	.49			
	13-51	30-60	5-65	5-35	1.20-1.45	2-20	0.05-0.12	0.1-1.1	0.1-0.8	.05	.24			
	51-80	50-70	10-45	5-20	1.20-1.45	2-20	0.05-0.12	0.1-0.7	0.1-0.8	.02	.20			
Smithdale-----------	0-3	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	5	5	56
	3-5	23-52	28-50	2-27	1.40-1.55	2-6	0.14-0.16	0.2-2.5	0.2-1.0	.49	.49			
	5-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
Brandon-------------	0-1	0-15	58-88	12-27	1.20-1.40	0.6-2	0.18-0.23	0.5-1.4	1.0-2.0	.43	.43	4	5	56
	1-29	0-20	45-82	18-40	1.20-1.45	0.6-2	0.18-0.23	0.8-2.8	0.5-2.0	.37	.37			
	29-36	15-30	43-67	18-27	1.20-1.45	2-20	0.05-0.12	0.2-1.3	0.1-0.8	.10	.37			
	36-80	20-35	30-62	18-35	1.20-1.45	2-20	0.05-0.12	0.2-2.0	0.1-0.8	.10	.28			
SeD2:														
Smithdale-----------	0-3	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	5	5	56
	3-5	23-52	28-50	2-27	1.40-1.55	2-6	0.14-0.16	0.2-2.5	0.2-1.0	.49	.49			
	5-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
SeD3:														
Smithdale-----------	0-2	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	4	5	56
	2-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
SeE2:														
Smithdale-----------	0-3	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	5	5	56
	3-5	23-52	28-50	2-27	1.40-1.55	2-6	0.14-0.16	0.2-2.5	0.2-1.0	.49	.49			
	5-56	40-60	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
SgD2:														
Smithdale-----------	0-3	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	5	5	56
	3-5	23-52	28-50	2-27	1.40-1.55	2-6	0.14-0.16	0.2-2.5	0.2-1.0	.49	.49			
	5-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct					
SgD2:														
Lexington-----------	0-6	0-15	58-88	12-27	1.30-1.50	0.6-2	0.17-0.22	0.6-2.0	0.5-2.0	.43	.43	5	6	48
	6-29	0-15	50-80	20-35	1.40-1.55	0.6-2	0.16-0.21	1.1-4.0	0.0-0.5	.43	.43			
	29-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			
SgD3:														
Smithdale-----------	0-2	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	4	5	56
	2-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
Lexington-----------	0-3	0-15	50-76	24-35	1.30-1.50	0.6-2	0.17-0.22	1.4-3.2	0.5-2.0	.37	.37	4	6	48
	3-29	0-15	45-80	20-40	1.40-1.55	0.6-2	0.16-0.21	1.1-5.1	0.0-0.5	.37	.37			
	29-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			
SgE2:														
Smithdale-----------	0-3	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	5	5	56
	3-5	23-52	28-50	2-27	1.40-1.55	2-6	0.14-0.16	0.2-2.5	0.2-1.0	.49	.49			
	5-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
Lexington-----------	0-6	0-15	58-88	12-27	1.30-1.50	0.6-2	0.17-0.22	0.6-2.0	0.5-2.0	.43	.43	5	6	48
	6-29	0-15	50-80	20-35	1.40-1.55	0.6-2	0.16-0.21	1.1-4.0	0.0-0.5	.43	.43			
	29-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			
SgE3:														
Smithdale-----------	0-2	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	4	5	56
	2-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
Lexington-----------	0-3	0-15	50-76	24-35	1.30-1.50	0.6-2	0.17-0.22	1.4-3.2	0.5-2.0	.37	.37	4	6	48
	3-29	0-15	45-80	20-40	1.40-1.55	0.6-2	0.16-0.21	1.1-5.1	0.0-0.5	.37	.37			
	29-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28			
SnD2:														
Smithdale-----------	0-3	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	5	5	56
	3-5	23-52	28-50	2-27	1.40-1.55	2-6	0.14-0.16	0.2-2.5	0.2-1.0	.49	.49			
	5-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
Luverne-------------	0-4	50-85	0-43	7-15	1.35-1.65	2-6	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28	5	3	86
	4-12	50-85	0-43	7-15	1.35-1.65	2-6	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28			
	12-37	15-35	0-50	35-65	1.25-1.55	0.2-0.6	0.12-0.18	3.0-5.9	0.1-0.5	.24	.24			
	37-71	15-35	0-50	35-65	1.25-1.55	0.2-0.6	0.12-0.18	2.2-7.1	0.0-0.2	.32	.32			
	71-80	40-75	0-50	10-25	1.35-1.65	0.2-0.6	0.05-0.10	0.5-1.5	0.0-0.2	.43	.43			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
SnD3:														
Smithdale-----------	0-2	23-52	28-50	2-27	1.35-1.65	2-6	0.11-0.15	0.3-1.0	0.5-1.0	.49	.49	4	5	56
	2-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
Luverne-------------	0-3	25-55	5-47	28-40	1.35-1.65	2-6	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28	4	4	86
	3-37	15-35	0-50	35-65	1.25-1.55	0.2-0.6	0.12-0.18	3.0-5.9	0.1-0.5	.24	.24			
	37-48	15-35	0-50	35-65	1.25-1.55	0.2-0.6	0.12-0.18	2.2-7.1	0.0-0.2	.32	.32			
	48-80	40-75	0-50	10-25	1.35-1.65	0.2-0.6	0.05-0.10	0.5-1.5	0.0-0.2	.43	.43			
SnE2:														
Smithdale-----------	0-3	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	5	5	56
	3-5	23-52	28-50	2-27	1.40-1.55	2-6	0.14-0.16	0.2-2.5	0.2-1.0	.49	.49			
	5-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
Luverne-------------	0-4	50-85	0-43	7-15	1.35-1.65	2-6	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28	5	3	86
	4-12	50-85	0-43	7-15	1.35-1.65	2-6	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28			
	12-37	15-35	0-50	35-65	1.25-1.55	0.2-0.6	0.12-0.18	3.0-5.9	0.1-0.5	.24	.24			
	37-71	15-35	0-50	35-65	1.25-1.55	0.2-0.6	0.12-0.18	2.2-7.1	0.0-0.2	.32	.32			
	71-80	40-75	0-50	10-25	1.35-1.65	0.2-0.6	0.05-0.10	0.5-1.5	0.0-0.2	.43	.43			
SRF:														
Smithdale-----------	0-3	23-52	28-50	2-27	1.40-1.50	2-6	0.14-0.16	0.1-1.1	0.5-2.0	.43	.43	5	5	56
	3-5	23-52	28-50	2-27	1.40-1.55	2-6	0.14-0.16	0.2-2.5	0.2-1.0	.49	.49			
	5-56	40-80	5-48	12-35	1.40-1.55	0.6-2	0.15-0.17	0.4-1.2	0.1-1.0	.28	.28			
	56-80	43-85	5-50	2-20	1.40-1.55	2-6	0.14-0.16	0.1-0.9	0.1-1.0	.15	.15			
Remlik--------------	0-3	70-85	5-30	0-10	1.20-1.50	6-20	0.06-0.10	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	3-25	60-85	5-40	0-10	1.20-1.35	0.6-6	0.10-0.17	0.0-2.9	0.0-0.5	.15	.15			
	25-45	45-65	0-43	12-35	1.40-1.55	0.6-2	0.15-0.17	0.0-2.9	0.1-1.0	.24	.24			
	45-80	75-92	0-25	0-8	1.35-1.55	6-20	0.04-0.10	0.0-2.9	0.0-0.5	.15	.15			
Luverne-------------	0-4	50-85	0-43	7-15	1.35-1.65	2-6	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28	5	3	86
	4-12	50-85	0-43	7-15	1.35-1.65	2-6	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28			
	12-37	15-35	0-50	35-65	1.25-1.55	0.2-0.6	0.12-0.18	3.0-5.9	0.1-0.5	.24	.24			
	37-48	15-35	0-50	35-65	1.25-1.55	0.2-0.6	0.12-0.18	2.2-7.1	0.0-0.2	.32	.32			
	48-80	40-75	0-50	10-25	1.35-1.65	0.2-0.6	0.05-0.10	0.5-1.5	0.0-0.2	.43	.43			
SuC:														
Sugargrove----------	0-2	0-23	50-88	12-27	1.20-1.40	0.6-6	0.14-0.19	0.3-1.2	1.0-3.0	.15	.32	3	7	38
	2-6	0-23	50-82	18-27	1.30-1.50	0.6-6	0.14-0.19	0.5-2.3	0.0-0.5	.20	.43			
	6-28	0-25	40-82	18-35	1.30-1.50	0.6-6	0.14-0.19	0.3-2.1	0.0-0.5	.24	.43			
	28-80	---	---	---	---	0.00-0.2	0.00-0.00	---	0.0-0.0	---	---			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
SuC:														
Sengtown------------	0-3	0-23	50-88	12-27	1.35-1.55	0.6-2	0.10-0.16	0.3-1.2	1.0-2.0	.20	.32	5	7	38
	3-6	5-35	25-77	18-40	1.35-1.55	0.6-2	0.10-0.15	0.6-2.7	0.0-0.5	.28	.43			
	6-63	10-25	15-50	40-60	1.35-1.60	0.6-2	0.08-0.12	1.8-5.5	0.0-0.5	.10	.20			
	63-80	10-30	10-50	40-60	1.35-1.60	0.6-2	0.08-0.12	1.1-4.1	0.0-0.3	.10	.20			
Hawthorne-----------	0-4	10-23	50-80	10-27	1.40-1.50	2-6	0.14-0.18	0.3-1.1	0.5-2.0	.17	.32	3	6	48
	4-11	10-27	50-80	10-23	1.40-1.55	2-6	0.14-0.19	0.5-2.2	0.3-0.8	.20	.43			
	11-36	0-50	40-80	10-40	1.40-1.55	2-6	0.05-0.10	0.2-1.3	0.0-0.5	.10	.43			
	36-80	---	---	---	---	0.00-0.2	0.00-0.00	---	0.0-0.0	---	---			
SuE:														
Sugargrove----------	0-2	0-23	50-88	12-27	1.20-1.40	0.6-6	0.14-0.19	0.3-1.2	1.0-3.0	.15	.32	3	7	38
	2-6	0-23	50-82	18-27	1.30-1.50	0.6-6	0.14-0.19	0.5-2.3	0.0-0.5	.20	.43			
	6-28	0-25	40-82	18-35	1.30-1.50	0.6-6	0.14-0.19	0.3-2.1	0.0-0.5	.24	.43			
	28-80	---	---	---	---	0.00-0.2	0.00-0.00	---	0.0-0.0	---	---			
Sengtown------------	0-3	0-23	50-88	12-27	1.35-1.55	0.6-2	0.10-0.16	0.3-1.2	1.0-2.0	.20	.32	5	7	38
	3-6	5-35	25-77	18-40	1.35-1.55	0.6-2	0.10-0.15	0.6-2.7	0.0-0.5	.28	.43			
	6-63	10-25	15-50	40-60	1.35-1.60	0.6-2	0.08-0.12	1.8-5.5	0.0-0.5	.10	.20			
	63-80	10-30	10-50	40-60	1.35-1.60	0.6-2	0.08-0.12	1.1-4.1	0.0-0.3	.10	.20			
Hawthorne-----------	0-4	10-23	50-80	10-27	1.40-1.50	2-6	0.14-0.18	0.3-1.1	0.5-2.0	.17	.32	3	6	48
	4-11	10-27	50-80	10-23	1.40-1.55	2-6	0.14-0.19	0.5-2.2	0.3-0.8	.20	.43			
	11-36	0-50	40-80	10-40	1.40-1.55	2-6	0.05-0.10	0.2-1.3	0.0-0.5	.10	.43			
	36-80	---	---	---	---	0.00-0.2	0.00-0.00	---	0.0-0.0	---	---			
TmC:														
Tarklin-------------	0-2	0-15	60-82	18-25	1.25-1.45	0.6-6	0.13-0.18	0.7-1.2	0.5-2.0	.43	.43	3	6	48
	2-10	0-20	52-88	12-28	1.45-1.55	0.6-6	0.13-0.18	0.4-2.5	0.0-0.5	.55	.55			
	10-20	0-20	40-72	20-40	1.45-1.60	0.06-0.2	0.06-0.10	0.6-1.8	0.0-0.5	.24	.43			
	20-80	10-30	45-70	20-25	1.45-1.55	0.2-0.6	0.00-0.02	0.2-1.2	0.0-0.5	.15	.49			
Minvale-------------	0-5	0-15	58-85	15-27	1.30-1.45	0.6-2	0.16-0.22	0.4-1.0	0.5-2.0	.24	.43	5	7	38
	5-18	0-15	58-88	12-27	1.40-1.55	0.6-2	0.12-0.18	0.4-2.1	0.0-0.5	.32	.55			
	18-80	0-20	48-80	20-32	1.40-1.55	0.6-2	0.11-0.17	0.4-1.1	0.0-0.5	.24	.43			
TmE:														
Tarklin-------------	0-2	0-15	60-82	18-25	1.25-1.45	0.6-6	0.13-0.18	1.1-1.9	0.5-2.0	.43	.43	3	6	48
	2-10	0-20	52-88	12-28	1.45-1.55	0.6-6	0.13-0.18	0.3-2.5	0.0-0.5	.64	.64			
	10-20	0-20	40-72	20-40	1.45-1.60	0.06-0.2	0.06-0.10	0.6-1.8	0.0-0.5	.24	.43			
	20-80	10-30	45-70	20-25	1.60-1.80	0.00-0.06	0.00-0.10	0.2-0.9	0.0-0.5	.15	.55			
Minvale-------------	0-5	0-15	58-85	15-30	1.30-1.45	0.6-2	0.16-0.22	0.4-1.1	0.5-2.0	.24	.43	5	7	38
	5-18	0-15	58-88	12-27	1.40-1.55	0.6-2	0.12-0.18	0.5-2.3	0.0-0.5	.32	.55			
	18-80	0-20	48-80	20-32	1.40-1.55	0.6-2	0.11-0.17	0.4-1.0	0.0-0.5	.24	.43			

Table 15.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*In/hr*	*In/in*	*Pct*	*Pct*					
Ua:														
Udorthents, loamy---	0-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28	5	5	56
Ud:														
Udorthents, loamy---	0-80	15-60	13-70	15-27	1.30-1.50	2-6	0.06-0.12	0.9-2.8	0.0-0.5	.28	.28	5	5	56
Urban land.														
Ur:														
Urban land.														
W:														
Water.														

Table 16.--Chemical Soil Properties

[Absence of an entry indicates that data were not estimated]

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
Ak:						
Arkabutla-----------	0-7	---	2.7-10	4.5-5.5	0	0
	7-36	---	5.2-11	4.5-5.5	0	0
	36-80	---	1.1-7.7	4.5-5.5	0	0
Ao:						
Arkabutla-----------	0-7	---	2.7-10	4.5-5.5	0	0
	7-36	---	5.2-11	4.5-5.5	0	0
	36-80	---	1.1-7.7	4.5-5.5	0	0
Rosebloom-----------	0-6	9.7-19	---	4.5-5.5	0	0
	6-60	---	5.1-13	4.5-5.5	0	0
	60-80	---	3.2-7.0	4.5-5.5	0	0
ArC2:						
Armour--------------	0-6	8.1-15	---	5.1-7.0	0	0
	6-80	9.1-21	---	5.1-6.0	0	0
AuE2:						
Arundel-------------	0-2	---	2.9-12	3.5-5.5	0	0
	2-30	---	14-39	3.5-5.5	0	0
	30-80	---	---	---	0	---
Chickasaw-----------	0-3	7.4-30	---	5.1-6.0	0	0
	3-6	10-30	---	5.1-6.0	0	0
	6-23	25-39	---	4.5-6.0	0	0
	23-42	---	20-42	4.5-5.5	0	0
	42-80	---	---	---	0	---
BrB2:						
Brandon-------------	0-1	---	2.1-5.1	4.5-5.5	0	0
	1-29	---	3.2-6.9	4.5-5.5	0	0
	29-36	---	3.4-5.8	4.5-5.5	0	0
	36-80	---	3.4-7.6	4.5-5.5	0	0
BrC2:						
Brandon-------------	0-1	---	2.1-5.1	4.5-5.5	0	0
	1-29	---	3.2-6.9	4.5-5.5	0	0
	29-36	---	3.4-5.8	4.5-5.5	0	0
	36-80	---	3.4-7.6	4.5-5.5	0	0
BrC3:						
Brandon-------------	0-4	---	4.9-6.7	4.5-5.5	0	0
	4-29	---	3.2-8.0	4.5-5.5	0	0
	29-36	---	3.4-5.8	4.5-5.5	0	0
	36-80	---	3.4-7.6	4.5-5.5	0	0
CaB2:						
Calloway------------	0-6	5.4-15	---	4.5-6.0	0	0
	6-21	5.4-15	---	4.5-6.0	0	0
	21-80	---	3.1-16	4.5-6.0	0	0
CkA:						
Calloway------------	0-6	5.4-15	---	4.5-6.0	0	0
	6-21	5.4-15	---	4.5-6.0	0	0
	21-80	---	3.1-16	4.5-6.0	0	0

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
CkA:						
Kurk	0-7	6.4-12	---	5.1-7.3	0	0
	7-21	0.1-12	---	5.1-7.3	0	0
	21-56	---	8.3-18	4.5-7.3	0	0
	56-80	---	4.6-15	4.5-7.3	0	0
Cl:						
Cascilla	0-8	---	1.1-5.5	4.5-5.5	0	0
	8-65	---	1.1-8.4	4.5-5.5	0	0
	65-80	---	1.1-7.7	4.5-5.5	0	0
Cn:						
Chenneby	0-8	---	2.9-9.1	4.5-6.0	0	0
	8-57	---	2.9-12	4.5-6.0	0	0
	57-80	---	0.4-4.6	4.5-5.0	0	0
CVA:						
Chenneby	0-8	---	2.9-9.1	4.5-6.0	0	0
	8-57	---	2.9-12	4.5-6.0	0	0
	57-80	---	0.4-4.6	4.5-5.0	0	0
Enville	0-5	0.0-9.8	---	5.1-6.5	0	0
	5-13	---	1.0-3.9	4.5-5.5	0	0
	13-45	---	0.8-2.3	5.1-5.5	0	0
	45-80	---	0.0-3.3	4.5-5.5	0	0
Arkabutla	0-7	---	2.7-10	4.5-5.5	0	0
	7-36	---	5.2-11	4.5-5.5	0	0
	36-80	---	1.1-7.7	4.5-5.5	0	0
DaC3:						
Deanburg	0-6	5.1-18	---	5.1-6.0	0	0
	6-30	7.6-18	---	5.1-6.0	0	0
	30-80	1.0-5.4	---	5.1-6.0	0	0
DeB3:						
Deanburg	0-3	7.6-15	---	5.1-6.0	0	0
	3-23	7.6-18	---	5.1-6.0	0	0
	23-30	0.1-8.0	---	5.1-6.0	0	0
	30-80	0.1-6.4	---	5.1-6.0	0	0
DeC2:						
Deanburg	0-3	7.6-15	---	5.1-6.0	0	0
	3-23	7.6-18	---	5.1-6.0	0	0
	23-30	0.1-8.0	---	5.1-6.0	0	0
	30-80	0.1-6.4	---	5.1-6.0	0	0
DnB2:						
Deanburg	0-6	5.1-13	---	5.1-6.0	0	0
	6-32	7.6-18	---	5.1-6.0	0	0
	32-40	0.1-8.0	---	5.1-6.0	0	0
	40-80	0.1-6.4	---	5.1-6.0	0	0
DtB2:						
Dulac	0-5	4.3-9.8	---	5.6-6.0	0	0
	5-19	---	3.3-7.6	5.1-5.5	0	0
	19-30	---	3.5-8.4	4.5-6.0	0	0
	30-33	---	3.9-7.6	4.5-5.5	0	0
	33-64	---	8.0-12	4.5-5.5	0	0
	64-80	---	---	---	0	---

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
DtB2:						
Tippah	0-5	6.4-19	---	4.5-6.0	0	0
	5-20	---	3.6-18	4.5-6.0	0	0
	20-80	---	12-30	4.5-6.0	0	0
DtB3:						
Dulac	0-3	4.3-13	---	5.6-6.0	0	0
	3-15	---	3.3-7.6	5.1-5.5	0	0
	15-30	---	3.5-8.4	4.5-6.0	0	0
	30-33	---	3.9-7.6	4.5-5.5	0	0
	33-64	---	8.0-12	4.5-5.5	0	0
	64-80	---	---	---	0	---
Tippah	0-3	6.4-19	---	4.5-6.0	0	0
	3-34	---	3.6-18	4.5-6.0	0	0
	34-80	---	12-30	4.5-6.0	0	0
DtC2:						
Dulac	0-5	4.3-9.8	---	5.6-6.0	0	0
	5-19	---	3.3-7.6	5.1-5.5	0	0
	19-30	---	3.5-8.4	4.5-6.0	0	0
	30-33	---	3.9-7.6	4.5-5.5	0	0
	33-64	---	8.0-12	4.5-5.5	0	0
	64-80	---	---	---	0	---
Tippah	0-5	6.4-19	---	4.5-6.0	0	0
	5-27	---	3.6-18	4.5-6.0	0	0
	27-80	---	12-30	4.5-6.0	0	0
DtC3:						
Dulac	0-3	4.3-13	---	5.6-6.0	0	0
	3-15	---	3.3-7.6	5.1-5.5	0	0
	15-30	---	3.5-8.4	4.5-6.0	0	0
	30-33	---	3.9-7.6	4.5-5.5	0	0
	33-64	---	8.0-12	4.5-5.5	0	0
	64-80	---	---	---	0	---
Tippah	0-3	6.4-19	---	4.5-6.0	0	0
	3-34	---	3.6-18	4.5-6.0	0	0
	34-80	---	12-30	4.5-6.0	0	0
DtD2:						
Dulac	0-5	4.3-9.8	---	5.6-6.0	0	0
	5-19	---	3.3-7.6	5.1-5.5	0	0
	19-30	---	3.5-8.4	4.5-6.0	0	0
	30-33	---	3.9-7.6	4.5-5.5	0	0
	33-64	---	8.0-12	4.5-5.5	0	0
	64-80	---	---	---	0	---
Tippah	0-5	6.4-19	---	4.5-6.0	0	0
	5-27	---	3.6-18	4.5-6.0	0	0
	27-80	---	12-30	4.5-6.0	0	0
DtD3:						
Dulac	0-3	4.3-13	---	5.6-6.0	0	0
	3-15	---	3.3-7.6	5.1-5.5	0	0
	15-30	---	3.5-8.4	4.5-6.0	0	0
	30-33	---	3.9-7.6	4.5-5.5	0	0
	33-64	---	8.0-12	4.5-5.5	0	0
	64-80	---	---	---	0	---

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
DtD3:						
Tippah	0-3	6.4-19	---	4.5-6.0	0	0
	3-34	---	3.6-18	4.5-6.0	0	0
	34-80	---	12-30	4.5-6.0	0	0
Ea:						
Enville	0-5	0.0-9.8	---	5.1-6.5	0	0
	5-13	---	1.0-3.9	4.5-5.5	0	0
	13-45	---	0.8-2.3	5.1-5.5	0	0
	45-80	---	0.0-3.3	4.5-5.5	0	0
Eb:						
Enville	0-5	0.0-9.8	---	5.1-6.5	0	0
	5-13	---	1.0-3.9	4.5-5.5	0	0
	13-45	---	0.8-2.3	5.1-5.5	0	0
	45-80	---	0.0-3.3	4.5-5.5	0	0
Bibb	0-8	1.1-9.8	---	3.5-5.5	0	0
	8-80	---	0.0-5.7	3.5-5.5	0	0
FaB2:						
Falkner	0-7	2.7-15	---	4.5-6.0	0	0
	7-22	---	6.4-18	4.5-6.0	0	0
	22-77	---	14-34	4.5-6.5	0	0
	77-80	---	---	---	0	---
FeA:						
Feliciana	0-12	4.3-12	---	5.1-6.5	0	0
	12-63	11-19	---	4.5-6.0	0	0
	63-80	---	0.0-13	4.5-6.0	0	0
FeB2:						
Feliciana	0-7	4.3-12	---	5.1-6.5	0	0
	7-52	11-19	---	4.5-6.0	0	0
	52-80	---	0.0-13	4.5-6.0	0	0
GrA:						
Grenada	0-9	4.3-15	---	4.5-6.5	0	0
	9-18	4.2-14	---	4.5-6.0	0	0
	18-32	---	3.6-13	4.5-6.0	0	0
	32-80	---	5.0-21	4.5-6.0	0	0
GrB2:						
Grenada	0-6	4.3-15	---	4.5-6.5	0	0
	6-18	4.2-14	---	4.5-6.0	0	0
	18-32	---	3.6-13	4.5-6.0	0	0
	32-80	---	5.0-21	4.5-6.0	0	0
HgF:						
Hapludults	0-4	---	2.1-7.4	4.5-5.5	0	0
	4-80	---	1.8-8.0	4.5-6.0	0	0
Gullied land.						
HtE:						
Hawthorne	0-4	---	1.7-5.3	3.5-5.5	0	0
	4-11	---	3.5-16	3.5-5.5	0	0
	11-36	---	1.9-9.7	3.5-5.5	0	0
	36-80	---	---	---	0	---

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
HTF:						
Hawthorne	0-4	---	1.7-5.3	3.5-5.5	0	0
	4-11	---	3.5-16	3.5-5.5	0	0
	11-36	---	1.9-9.7	3.5-5.5	0	0
	36-80	---	---	---	0	---
Sengtown	0-3	---	2.1-5.1	4.5-6.0	0	0
	3-6	---	3.5-9.7	4.5-6.0	0	0
	6-63	---	8.0-15	4.5-6.0	0	0
	63-80	---	8.3-15	4.5-6.0	0	0
Sugargrove	0-2	---	2.0-5.1	4.5-5.5	0	0
	2-6	---	2.4-16	4.5-5.5	0	0
	6-28	---	3.5-8.4	4.5-5.5	0	0
	28-80	---	---	---	0	---
HuB:						
Humphreys	0-6	4.4-7.8	---	4.5-6.0	0	0
	6-50	---	3.5-8.4	4.5-6.0	0	0
	50-57	---	3.5-8.4	4.5-6.0	0	0
	57-80	---	3.5-8.4	4.5-6.0	0	0
HuC:						
Humphreys	0-6	4.4-7.8	---	4.5-6.0	0	0
	6-50	---	3.5-8.4	4.5-6.0	0	0
	50-57	---	3.5-8.4	4.5-6.0	0	0
	57-80	---	3.5-8.4	4.5-6.0	0	0
Ik:						
Iuka	0-5	2.7-8.2	---	5.1-6.0	0	0
	5-11	---	1.2-5.7	4.5-5.5	0	0
	11-30	---	1.2-6.3	4.5-5.5	0	0
	30-80	---	1.2-6.3	4.5-5.5	0	0
KrA:						
Kurk	0-7	6.4-12	---	5.1-7.3	0	0
	7-21	0.1-12	---	5.1-7.3	0	0
	21-56	---	8.3-18	4.5-7.3	0	0
	56-80	---	4.6-15	4.5-7.3	0	0
LaB2:						
Lax	0-2	---	1.4-4.9	4.5-5.5	0	0
	2-8	---	2.2-19	4.5-5.5	0	0
	8-26	---	3.5-8.4	4.5-5.5	0	0
	26-36	---	3.5-8.4	4.5-5.5	0	0
	36-80	---	3.6-8.4	4.5-5.0	0	0
LaC2:						
Lax	0-2	---	1.4-4.9	4.5-5.5	0	0
	2-8	---	2.2-19	4.5-5.5	0	0
	8-26	---	3.5-8.4	4.5-5.5	0	0
	26-36	---	3.5-8.4	4.5-5.5	0	0
	36-80	---	3.6-8.4	4.5-5.0	0	0
LbC3:						
Lax	0-5	---	1.4-8.0	4.5-5.5	0	0
	5-16	---	3.5-8.4	4.5-5.5	0	0
	16-36	---	3.5-8.4	4.5-5.5	0	0
	36-80	---	3.6-8.4	4.5-5.0	0	0

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
LeA:						
Lexington	0-9	---	3.1-9.1	6.1-6.5	0	0
	9-37	---	6.4-18	5.6-6.0	0	0
	37-80	---	4.6-15	4.5-6.0	0	0
LeB2:						
Lexington	0-6	---	3.1-9.1	6.1-6.5	0	0
	6-29	---	6.4-18	5.6-6.0	0	0
	29-80	---	4.6-15	4.5-6.0	0	0
LeC2:						
Lexington	0-6	---	3.1-9.1	6.1-6.5	0	0
	6-29	---	6.4-18	5.6-6.0	0	0
	29-80	---	4.6-15	4.5-6.0	0	0
LeD2:						
Lexington	0-6	---	3.1-9.1	6.1-6.5	0	0
	6-29	---	6.4-18	5.6-6.0	0	0
	29-80	---	4.6-15	4.5-6.0	0	0
LnB3:						
Lexington	0-3	---	6.8-12	6.1-6.5	0	0
	3-29	---	6.4-21	5.6-6.0	0	0
	29-80	---	4.6-15	4.5-6.0	0	0
LnC3:						
Lexington	0-3	---	6.8-12	6.1-6.5	0	0
	3-29	---	6.4-21	5.6-6.0	0	0
	29-80	---	4.6-15	4.5-6.0	0	0
LnD3:						
Lexington	0-3	---	6.8-12	6.1-6.5	0	0
	3-29	---	6.4-21	5.6-6.0	0	0
	29-80	---	4.6-15	4.5-6.0	0	0
Lo:						
Lobelville	0-6	8.1-12	---	4.5-6.5	0	0
	6-14	9.6-14	---	4.5-6.5	0	0
	14-48	---	1.9-13	4.5-6.0	0	0
	48-80	---	0.0-13	4.5-6.0	0	0
LrA:						
Loring	0-8	4.3-15	---	4.5-6.5	0	0
	8-26	4.2-14	---	4.5-6.0	0	0
	26-49	---	2.2-17	4.5-6.0	0	0
	49-80	---	2.5-13	4.5-6.0	0	0
LrB2:						
Loring	0-8	4.3-15	---	4.5-6.5	0	0
	8-27	4.2-14	---	4.5-6.0	0	0
	27-52	---	2.2-17	4.5-6.0	0	0
	52-80	---	2.5-13	4.5-6.0	0	0
LrC2:						
Loring	0-8	4.3-15	---	4.5-6.5	0	0
	8-27	4.2-14	---	4.5-6.0	0	0
	27-52	---	2.2-17	4.5-6.0	0	0
	52-80	---	2.5-13	4.5-6.0	0	0

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
LuE2:						
Luverne-------------	0-4	---	1.2-2.9	3.5-6.0	0	0
	4-12	---	1.2-2.9	3.5-5.5	0	0
	12-37	---	6.9-15	3.5-5.5	0	0
	37-71	---	7.3-16	3.5-5.5	0	0
	71-80	---	2.0-5.9	3.5-5.5	0	0
Ng:						
Nugent--------------	0-8	1.8-6.8	---	4.5-6.5	0	0
	8-80	1.7-7.8	---	4.5-6.5	0	0
Ok:						
Ochlockonee---------	0-8	3.8-12	---	4.5-6.5	0	0
	8-58	---	2.1-5.7	4.5-5.5	0	0
	58-80	---	0.7-5.7	4.5-5.5	0	0
PaB2:						
Paden---------------	0-7	6.4-12	---	4.5-6.0	0	0
	7-18	---	3.5-8.4	4.5-5.5	0	0
	18-30	---	3.6-8.4	4.5-5.5	0	0
	30-80	---	3.6-8.4	4.5-5.5	0	0
PaC2:						
Paden---------------	0-7	6.4-12	---	4.5-6.0	0	0
	7-18	---	3.5-8.4	4.5-5.5	0	0
	18-30	---	3.6-8.4	4.5-5.5	0	0
	30-80	---	3.6-8.4	4.5-5.5	0	0
PaC3:						
Paden---------------	0-3	---	3.1-6.3	4.5-6.0	0	0
	3-18	---	3.5-8.4	4.5-5.5	0	0
	18-30	---	3.6-8.4	4.5-5.5	0	0
	30-80	---	3.6-8.4	4.5-5.5	0	0
Pc:						
Pits, clay.						
Pg:						
Pits, gravel or sand.						
PoA:						
Providence----------	0-9	6.4-15	---	4.5-6.5	0	0
	9-30	---	3.3-9.1	4.5-6.0	0	0
	30-42	---	9.1-21	4.5-6.0	0	0
	42-66	---	3.9-13	4.5-6.0	0	0
	66-80	---	7.0-18	4.5-6.0	0	0
PoB2:						
Providence----------	0-6	---	2.9-9.1	4.5-6.5	0	0
	6-18	---	3.3-9.1	4.5-6.0	0	0
	18-32	---	9.1-21	4.5-6.0	0	0
	32-62	---	3.9-13	4.5-6.0	0	0
	62-80	---	7.0-18	4.5-6.0	0	0
PoC2:						
Providence----------	0-6	6.4-15	---	4.5-6.5	0	0
	6-18	---	3.3-9.1	4.5-6.0	0	0
	18-32	---	9.1-21	4.5-6.0	0	0
	32-62	---	3.9-13	4.5-6.0	0	0
	62-80	---	7.0-18	4.5-6.0	0	0

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorp-tion ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
PoD2:						
Providence----------	0-6	6.4-15	---	4.5-6.5	0	0
	6-18	---	3.3-9.1	4.5-6.0	0	0
	18-32	---	9.1-21	4.5-6.0	0	0
	32-62	---	3.9-13	4.5-6.0	0	0
	62-80	---	7.0-18	4.5-6.0	0	0
PrB3:						
Providence----------	0-3	---	6.5-12	4.5-6.5	0	0
	3-15	---	5.9-14	4.5-6.0	0	0
	15-22	---	9.1-21	4.5-6.0	0	0
	22-58	---	3.9-13	4.5-6.0	0	0
	58-80	---	7.0-18	4.5-6.0	0	0
PrC3:						
Providence----------	0-3	---	6.5-12	4.5-6.5	0	0
	3-15	---	5.9-14	4.5-6.0	0	0
	15-22	---	9.1-21	4.5-6.0	0	0
	22-58	---	3.9-13	4.5-6.0	0	0
	58-80	---	7.0-18	4.5-6.0	0	0
PrD3:						
Providence----------	0-3	---	6.5-12	4.5-6.5	0	0
	3-15	---	5.9-14	4.5-6.0	0	0
	15-22	---	9.1-21	4.5-6.0	0	0
	22-58	---	3.9-13	4.5-6.0	0	0
	58-80	---	7.0-18	4.5-6.0	0	0
Pu:						
Pruitton------------	0-6	3.7-10	---	4.5-6.0	0	0
	6-34	---	3.2-5.3	4.5-6.0	0	0
	34-80	---	1.2-5.1	4.5-6.0	0	0
Re:						
Riverby-------------	0-5	---	1.7-5.1	5.1-7.3	0	0
	5-19	---	0.0-3.5	5.1-7.3	0	0
	19-80	---	0.0-3.5	5.1-7.3	0	0
Ennis---------------	0-7	---	2.0-5.1	4.5-6.0	0	0
	7-37	---	3.3-8.4	4.5-6.0	0	0
	37-80	---	1.5-6.4	4.5-6.0	0	0
RO:						
Rosebloom-----------	0-6	9.7-19	---	4.5-5.5	0	0
	6-60	---	5.1-13	4.5-5.5	0	0
	60-80	---	3.2-7.0	4.5-5.5	0	0
Bibb----------------	0-8	1.1-9.8	---	3.5-5.5	0	0
	8-80	---	0.0-5.7	3.5-5.5	0	0
RtA:						
Routon--------------	0-6	6.4-15	---	4.5-6.5	0	0
	6-17	0.1-8.2	---	4.5-6.5	0	0
	17-51	---	0.2-14	4.5-6.5	0	0
	51-80	---	3.1-12	4.5-7.3	0	0
RuA:						
Routon--------------	0-6	6.4-15	---	4.5-6.5	0	0
	6-17	0.1-8.2	---	4.5-6.5	0	0
	17-51	---	0.2-14	4.5-6.5	0	0
	51-80	---	3.1-12	4.5-7.3	0	0

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
SaC2:						
Saffell-------------	0-2	---	2.1-5.1	5.0-5.5	0	0
	2-13	---	8.4-25	4.5-5.5	0	0
	13-51	---	0.9-7.6	4.5-5.5	0	0
	51-80	---	0.9-4.2	4.5-5.5	0	0
Brandon-------------	0-1	---	2.1-5.1	4.5-5.5	0	0
	1-29	---	3.2-6.9	4.5-5.5	0	0
	29-36	---	3.4-5.8	4.5-5.5	0	0
	36-80	---	3.4-7.6	4.5-5.5	0	0
SaE2:						
Saffell-------------	0-2	---	2.1-5.1	5.0-5.5	0	0
	2-13	---	8.4-25	4.5-5.5	0	0
	13-51	---	0.9-7.6	4.5-5.5	0	0
	51-80	---	0.9-4.2	4.5-5.5	0	0
Brandon-------------	0-1	---	2.1-5.1	4.5-5.5	0	0
	1-29	---	3.2-6.9	4.5-5.5	0	0
	29-36	---	3.4-5.8	4.5-5.5	0	0
	36-80	---	3.4-7.6	4.5-5.5	0	0
SAF:						
Saffell-------------	0-2	---	2.1-5.1	5.0-5.5	0	0
	2-13	---	8.4-25	4.5-5.5	0	0
	13-51	---	0.9-7.6	4.5-5.5	0	0
	51-80	---	0.9-4.2	4.5-5.5	0	0
Smithdale-----------	0-3	---	0.4-3.8	4.5-5.5	0	0
	3-5	---	1.0-17	4.5-5.5	0	0
	5-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0
Brandon-------------	0-1	---	2.1-5.1	4.5-5.5	0	0
	1-29	---	3.2-8.0	4.5-5.5	0	0
	29-36	---	3.4-5.8	4.5-5.5	0	0
	36-80	---	3.4-7.6	4.5-5.5	0	0
SeD2:						
Smithdale-----------	0-3	---	0.4-3.8	4.5-5.5	0	0
	3-5	---	1.0-17	4.5-5.5	0	0
	5-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0
SeD3:						
Smithdale-----------	0-2	---	0.4-3.8	4.5-5.5	0	0
	2-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0
SeE2:						
Smithdale-----------	0-3	---	0.4-3.8	4.5-5.5	0	0
	3-5	---	1.0-17	4.5-5.5	0	0
	5-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0
SgD2:						
Smithdale-----------	0-3	---	0.4-3.8	4.5-5.5	0	0
	3-5	---	1.0-17	4.5-5.5	0	0
	5-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
SgD2:						
Lexington-----------	0-6	---	3.1-9.1	6.1-6.5	0	0
	6-29	---	6.4-18	5.6-6.0	0	0
	29-80	---	4.6-15	4.5-6.0	0	0
SgD3:						
Smithdale-----------	0-2	---	0.4-3.8	4.5-5.5	0	0
	2-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0
Lexington-----------	0-3	---	6.8-12	6.1-6.5	0	0
	3-29	---	6.4-21	5.6-6.0	0	0
	29-80	---	4.6-15	4.5-6.0	0	0
SgE2:						
Smithdale-----------	0-3	---	0.4-3.8	4.5-5.5	0	0
	3-5	---	1.0-17	4.5-5.5	0	0
	5-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0
Lexington-----------	0-6	---	3.1-9.1	6.1-6.5	0	0
	6-29	---	6.4-18	5.6-6.0	0	0
	29-80	---	4.6-15	4.5-6.0	0	0
SgE3:						
Smithdale-----------	0-2	---	0.4-3.8	4.5-5.5	0	0
	2-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0
Lexington-----------	0-3	---	6.8-12	6.1-6.5	0	0
	3-29	---	6.4-21	5.6-6.0	0	0
	29-80	---	4.6-15	4.5-6.0	0	0
SnD2:						
Smithdale-----------	0-3	---	0.4-3.8	4.5-5.5	0	0
	3-5	---	1.0-17	4.5-5.5	0	0
	5-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0
Luverne-------------	0-4	---	1.2-2.9	3.5-6.0	0	0
	4-12	---	1.2-2.9	3.5-5.5	0	0
	12-37	---	6.9-15	3.5-5.5	0	0
	37-71	---	7.3-16	3.5-5.5	0	0
	71-80	---	2.0-5.9	3.5-5.5	0	0
SnD3:						
Smithdale-----------	0-2	---	0.4-3.8	4.5-5.5	0	0
	2-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0
Luverne-------------	0-3	---	5.3-8.0	3.5-5.5	0	0
	3-37	---	6.9-15	3.5-5.5	0	0
	37-48	---	7.3-16	3.5-5.5	0	0
	48-80	---	2.0-5.9	3.5-5.5	0	0
SnE2:						
Smithdale-----------	0-3	---	0.4-3.8	4.5-5.5	0	0
	3-5	---	1.0-17	4.5-5.5	0	0
	5-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
SnE2:						
Luverne	0-4	---	1.2-2.9	3.5-6.0	0	0
	4-12	---	1.2-2.9	3.5-5.5	0	0
	12-37	---	6.9-15	3.5-5.5	0	0
	37-71	---	7.3-16	3.5-5.5	0	0
	71-80	---	2.0-5.9	3.5-5.5	0	0
SRF:						
Smithdale	0-3	---	0.4-3.8	4.5-5.5	0	0
	3-5	---	1.0-17	4.5-5.5	0	0
	5-56	---	1.2-4.1	4.5-5.5	0	0
	56-80	---	0.3-3.1	4.5-5.5	0	0
Remlik	0-3	---	0.0-2.0	3.5-6.0	0	0
	3-25	---	0.0-6.2	3.5-6.0	0	0
	25-45	---	1.2-4.1	3.5-5.5	0	0
	45-80	---	0.1-1.8	3.5-6.0	0	0
Luverne	0-4	---	1.2-2.9	3.5-6.0	0	0
	4-12	---	1.2-2.9	3.5-5.5	0	0
	12-37	---	6.9-15	3.5-5.5	0	0
	37-48	---	7.3-16	3.5-5.5	0	0
	48-80	---	2.0-5.9	3.5-5.5	0	0
SuC:						
Sugargrove	0-2	---	2.0-5.1	4.5-5.5	0	0
	2-6	---	2.4-16	4.5-5.5	0	0
	6-28	---	3.5-8.4	4.5-5.5	0	0
	28-80	---	---	---	0	---
Sengtown	0-3	---	2.1-5.1	4.5-6.0	0	0
	3-6	---	3.5-9.7	4.5-6.0	0	0
	6-63	---	8.0-15	4.5-6.0	0	0
	63-80	---	8.3-15	4.5-6.0	0	0
Hawthorne	0-4	---	1.7-5.3	3.5-5.5	0	0
	4-11	---	3.5-16	3.5-5.5	0	0
	11-36	---	1.9-9.7	3.5-5.5	0	0
	36-80	---	---	---	0	---
SuE:						
Sugargrove	0-2	---	2.0-5.1	4.5-5.5	0	0
	2-6	---	2.4-16	4.5-5.5	0	0
	6-28	---	3.5-8.4	4.5-5.5	0	0
	28-80	---	---	---	0	---
Sengtown	0-3	---	2.1-5.1	4.5-6.0	0	0
	3-6	---	3.5-9.7	4.5-6.0	0	0
	6-63	---	8.0-15	4.5-6.0	0	0
	63-80	---	8.3-15	4.5-6.0	0	0
Hawthorne	0-4	---	1.7-5.3	3.5-5.5	0	0
	4-11	---	3.5-16	3.5-5.5	0	0
	11-36	---	1.9-9.7	3.5-5.5	0	0
	36-80	---	---	---	0	---
TmC:						
Tarklin	0-2	6.4-9.1	---	3.5-6.0	0	0
	2-10	4.1-9.9	---	3.5-6.0	0	0
	10-20	---	3.9-9.7	3.5-6.0	0	0
	20-80	---	3.9-5.9	3.5-6.0	0	0

Table 16.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Salinity	Sodium adsorption ratio
	Inches	*meq/100 g*	*meq/100 g*	*pH*	*mmhos/cm*	
TmC:						
Minvale	0-5	2.9-5.4	---	4.5-6.0	0	0
	5-18	---	1.9-16	4.5-5.5	0	0
	18-80	---	2.5-4.8	4.5-5.5	0	0
TmE:						
Tarklin	0-2	6.4-9.1	---	3.5-6.0	0	0
	2-10	4.1-9.9	---	3.5-6.0	0	0
	10-20	---	3.9-9.7	3.5-6.0	0	0
	20-80	---	3.9-5.9	3.5-6.0	0	0
Minvale	0-5	2.9-6.0	---	4.5-6.0	0	0
	5-18	---	1.9-16	4.5-5.5	0	0
	18-80	---	2.5-4.8	4.5-5.5	0	0
Ua:						
Udorthents, loamy	0-80	---	4.6-15	4.5-6.0	0	0
Ud:						
Udorthents, loamy	0-80	---	4.6-15	4.5-6.0	0	0
Urban land.						
Ur:						
Urban land.						
W:						
Water.						

Table 17.--Water Features

[Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated]

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	*Ft*	*Ft*				
Ak:										
Arkabutla	B/D	Very high								
			Jan-Apr	0.9-1.6	>6.0	---	---	None	Brief	Occasional
			December	0.9-1.6	>6.0	---	---	None	Brief	Occasional
Ao:										
Arkabutla	B/D	Very high								
			Jan-Apr	0.9-1.6	>6.0	---	---	None	Long	Frequent
			December	0.9-1.6	>6.0	---	---	None	Long	Frequent
Rosebloom	B/D	Very high								
			Jan-Mar	0.0-1.0	>6.0	---	---	None	Long	Frequent
			April	---	---	---	---	None	Long	Frequent
			Nov-Dec	---	---	---	---	None	Long	Frequent
ArC2:										
Armour	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
AuE2:										
Arundel	D	High								
			Jan-Dec	---	---	---	---	None	---	None
Chickasaw	D	High								
			Jan-Dec	---	---	---	---	None	---	None
BrB2:										
Brandon	B	Low								
			Jan-Dec	---	---	---	---	None	---	None
BrC2:										
Brandon	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
BrC3:										
Brandon	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None

Table 17.--Water Features--Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	*Ft*	*Ft*				
CaB2:										
Calloway	C	Very low								
			Jan-Apr	0.9-1.2	1.2-3.2	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.9-1.2	1.2-3.2	---	---	None	---	None
CkA:										
Calloway	C	Very low								
			Jan-Apr	0.9-1.2	1.2-3.2	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.9-1.2	1.2-3.2	---	---	None	---	None
Kurk	C/D	Very high								
			Jan-Apr	0.7-1.5	1.5-1.9	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.7-1.5	1.5-1.9	---	---	None	---	None
Cl:										
Cascilla	B	Low								
			Jan-Mar	---	---	---	---	None	---	Rare
			December	---	---	---	---	None	---	Rare
Cn:										
Chenneby	B/D	Very high								
			Jan-Mar	1.0-2.5	>6.0	---	---	None	Brief	Occasional
			April	---	---	---	---	None	Brief	Occasional
			December	---	---	---	---	None	Brief	Occasional
CVA:										
Chenneby	B/D	Very high								
			Jan-Mar	1.0-2.5	>6.0	---	---	None	Long	Frequent
			April	---	---	---	---	None	Long	Frequent
			December	---	---	---	---	None	Long	Frequent
Enville	B/D	Very high								
			Jan-Apr	1.0-1.5	>6.0	---	---	None	Long	Frequent
			November	---	---	---	---	None	Long	Frequent
			December	1.0-1.5	>6.0	---	---	None	Long	Frequent
Arkabutla	B/D	Very high								
			Jan-Apr	0.9-1.6	>6.0	---	---	None	Long	Frequent
			December	0.9-1.6	>6.0	---	---	None	Long	Frequent
DaC3:										
Deanburg	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None

Table 17.--Water Features--Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	*Ft*	*Ft*				
DeB3:										
Deanburg	B	Low								
			Jan-Dec	---	---	---	---	None	---	None
DeC2:										
Deanburg	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
DnB2:										
Deanburg	B	Low								
			Jan-Dec	---	---	---	---	None	---	None
DtB2:										
Dulac	D	Very high								
			Jan-Apr	0.9-1.3	1.3-2.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.9-1.3	1.3-2.0	---	---	None	---	None
Tippah	C	Very high								
			Jan-Apr	1.4-1.9	1.9-3.5	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.4-1.9	1.9-3.5	---	---	None	---	None
DtB3:										
Dulac	D	Very high								
			Jan-Apr	0.7-1.0	1.0-2.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.7-1.0	1.0-2.0	---	---	None	---	None
Tippah	C/D	Very high								
			Jan-Apr	1.0-1.3	1.3-1.8	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.0-1.3	1.3-1.8	---	---	None	---	None
DtC2:										
Dulac	D	Very high								
			Jan-Apr	0.9-1.3	1.3-2.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.9-1.3	1.3-2.0	---	---	None	---	None
Tippah	C	Very high								
			Jan-Apr	1.4-1.9	1.9-3.5	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.4-1.9	1.9-3.5	---	---	None	---	None

Table 17.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
DtC3:										
Dulac	D	Very high								
			Jan-Apr	0.7-1.0	1.0-2.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.7-1.0	1.0-2.0	---	---	None	---	None
Tippah	C/D	Very high								
			Jan-Apr	1.0-1.3	1.3-1.8	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.0-1.3	1.3-1.8	---	---	None	---	None
DtD2:										
Dulac	D	Very high								
			Jan-Apr	0.9-1.3	1.3-2.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.9-1.3	1.3-2.0	---	---	None	---	None
Tippah	C	Very high								
			Jan-Apr	1.4-1.9	1.9-3.5	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.4-1.9	1.9-3.5	---	---	None	---	None
DtD3:										
Dulac	D	Very high								
			Jan-Apr	0.7-1.0	1.0-2.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.7-1.0	1.0-2.0	---	---	None	---	None
Tippah	C/D	Very high								
			Jan-Apr	1.0-1.3	1.3-1.8	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.0-1.3	1.3-1.8	---	---	None	---	None
Ea:										
Enville	B/D	Very high								
			Jan-Apr	1.0-1.5	>6.0	---	---	None	Brief	Occasional
			November	1.0-1.5	>6.0	---	---	None	Brief	Occasional
			December	1.0-1.5	>6.0	---	---	None	Brief	Occasional
Eb:										
Enville	B/D	Very high								
			Jan-Apr	1.0-1.5	>6.0	---	---	None	Long	Frequent
			November	---	---	---	---	None	Long	Frequent
			December	1.0-1.5	>6.0	---	---	None	Long	Frequent

Table 17.--Water Features--Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
Eb:										
Bibb	B/D	Very high								
			Jan-May	0.0-1.0	>6.0	---	---	None	Long	Frequent
			November	---	---	---	---	None	Long	Frequent
			December	0.0-1.0	>6.0	---	---	None	Long	Frequent
FaB2:										
Falkner	C/D	Very high								
			Jan-Apr	1.0-1.2	1.2-2.3	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.0-1.2	1.2-2.3	---	---	None	---	None
FeA:										
Feliciana	B	Low								
			Jan-Dec	---	---	---	---	None	---	None
FeB2:										
Feliciana	B	Low								
			Jan-Dec	---	---	---	---	None	---	None
GrA:										
Grenada	C	Low								
			Jan-Apr	1.2-2.3	2.3-3.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.2-2.3	2.3-3.0	---	---	None	---	None
GrB2:										
Grenada	C	Low								
			Jan-Apr	1.2-2.3	2.3-3.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.2-2.3	2.3-3.0	---	---	None	---	None
HgF:										
Hapludults	B	High								
			Jan-Dec	---	---	---	---	None	---	None
Gullied land	---	High								
			Jan-Dec	---	---	---	---	None	---	None
HtE:										
Hawthorne	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
HTF:										
Hawthorne	B	High								
			Jan-Dec	---	---	---	---	None	---	None

Table 17.--Water Features--Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
HTF:										
Sengtown	B	High								
			Jan-Dec	---	---	---	---	None	---	None
Sugargrove	B	High								
			Jan-Dec	---	---	---	---	None	---	None
HuB:										
Humphreys	A	Very low								
			Jan-Dec	---	---	---	---	None	---	None
HuC:										
Humphreys	A	Low								
			Jan-Dec	---	---	---	---	None	---	None
Ik:										
Iuka	C	Low								
			Jan-Mar	2.1-2.9	>6.0	---	---	None	Brief	Occasional
			April	2.1-2.9	>6.0	---	---	None	---	---
			December	2.1-2.9	>6.0	---	---	None	Brief	Occasional
KrA:										
Kurk	C/D	Very high								
			Jan-Apr	0.7-1.5	1.5-1.9	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.7-1.5	1.5-1.9	---	---	None	---	None
LaB2:										
Lax	D	Very high								
			Jan-Apr	0.7-1.8	1.8-2.5	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.7-1.8	1.8-2.5	---	---	None	---	None
LaC2:										
Lax	D	Very high								
			Jan-Apr	0.7-1.8	1.8-2.5	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.7-1.8	1.8-2.5	---	---	None	---	None
LbC3:										
Lax	D	Very high								
			Jan-Apr	0.4-1.2	1.2-1.5	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.4-1.2	1.2-1.5	---	---	None	---	None

Table 17.--Water Features--Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
LeA:										
Lexington	B	Low								
			Jan-Dec	---	---	---	---	None	---	None
LeB2:										
Lexington	B	Low								
			Jan-Dec	---	---	---	---	None	---	None
LeC2:										
Lexington	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
LeD2:										
Lexington	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
LnB3:										
Lexington	B	Low								
			Jan-Dec	---	---	---	---	None	---	None
LnC3:										
Lexington	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
LnD3:										
Lexington	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Lo:										
Lobelville	C	Very high								
			Jan-Apr	0.9-2.0	3.3-6.7	---	---	None	Brief	Occasional
			December	0.9-2.0	3.3-6.7	---	---	None	Brief	Occasional
LrA:										
Loring	C	Low								
			Jan-Apr	1.6-2.1	2.1-3.4	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.6-2.1	2.1-3.4	---	---	None	---	None
LrB2:										
Loring	C	Low								
			Jan-Apr	1.6-2.1	2.1-3.4	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.6-2.1	2.1-3.4	---	---	None	---	None

Table 17.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	*Ft*	*Ft*				
LrC2:										
Loring--------------------	C	Medium								
			Jan-Apr	1.6-2.1	2.1-3.4	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.6-2.1	2.1-3.4	---	---	None	---	None
LuE2:										
Luverne-------------------	C	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Ng:										
Nugent--------------------	A	Very low								
			Jan-Apr	---	---	---	---	None	Very brief	Occasional
			December	---	---	---	---	None	Very brief	Occasional
Ok:										
Ochlockonee---------------	B	Low								
			Jan-Mar	---	---	---	---	None	---	Rare
			December	---	---	---	---	None	---	Rare
PaB2:										
Paden---------------------	D	Very high								
			Jan-Apr	1.0-1.3	1.3-2.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.0-1.3	1.3-2.0	---	---	None	---	None
PaC2:										
Paden---------------------	D	Very high								
			Jan-Apr	1.0-1.3	1.3-2.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.0-1.3	1.3-2.0	---	---	None	---	None
PaC3:										
Paden---------------------	D	Very high								
			Jan-Apr	1.0-1.3	1.3-2.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.0-1.3	1.3-2.0	---	---	None	---	None
Pc:										
Pits, clay.										
Pg:										
Pits, gravel or sand.										

Table 17.--Water Features--Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
PoA:										
Providence	C	Very high								
			Jan-Apr	0.9-3.5	1.7-3.8	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.9-3.5	1.7-3.8	---	---	None	---	None
PoB2:										
Providence	D	Very high								
			Jan-Apr	1.0-1.3	1.3-2.3	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.0-1.3	1.3-2.3	---	---	None	---	None
PoC2:										
Providence	D	Very high								
			Jan-Apr	1.0-1.3	1.3-2.3	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.0-1.3	1.3-2.3	---	---	None	---	None
PoD2:										
Providence	D	Very high								
			Jan-Apr	1.0-1.3	1.3-2.3	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	1.0-1.3	1.3-2.3	---	---	None	---	None
PrB3:										
Providence	D	Very high								
			Jan-Apr	0.7-1.0	1.0-1.3	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.7-1.0	1.0-1.3	---	---	None	---	None
PrC3:										
Providence	D	Very high								
			Jan-Apr	0.7-1.0	1.0-1.3	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.7-1.0	1.0-1.3	---	---	None	---	None
PrD3:										
Providence	D	Very high								
			Jan-Apr	0.7-1.0	1.0-1.3	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.7-1.0	1.0-1.3	---	---	None	---	None
Pu:										
Pruitton	A	Very low								
			Jan-Apr	---	---	---	---	None	Brief	Occasional
			December	---	---	---	---	None	Brief	Occasional

Table 17.--Water Features--Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	*Ft*	*Ft*				
Re:										
Riverby--------------------	A	Very low								
			Jan-Apr	---	---	---	---	None	Very brief	Occasional
			December	---	---	---	---	None	Very brief	Occasional
Ennis----------------------	A	Very low								
			Jan-Apr	---	---	---	---	None	Very brief	Occasional
			Nov-Dec	---	---	---	---	None	Very brief	Occasional
RO:										
Rosebloom------------------	B/D	Very high								
			Jan-Mar	0.0-1.0	>6.0	---	---	None	Very long	Frequent
			Apr-May	---	---	---	---	None	Very long	Frequent
			Nov-Dec	---	---	---	---	None	Very long	Frequent
Bibb-----------------------	B/D	Very high								
			Jan-May	0.0-1.0	>6.0	---	---	None	Very long	Frequent
			November	---	---	---	---	None	Very long	Frequent
			December	0.0-1.0	>6.0	---	---	None	Very long	Frequent
RtA:										
Routon---------------------	C/D	Very high								
			Jan-Apr	0.0-1.0	>6.0	0.5-1.5	---	---	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.0-1.0	>6.0	0.5-1.5	---	---	---	None
RuA:										
Routon---------------------	C/D	Negligible								
			Jan-Apr	0.0-1.0	>6.0	0.5-1.5	Brief	Occasional	---	None
			May-Oct	---	---	---	---	---	---	None
			November	---	---	0.5-1.5	Brief	Occasional	---	None
			December	0.0-1.0	>6.0	0.5-1.5	Brief	Occasional	---	None
SaC2:										
Saffell--------------------	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Brandon--------------------	A	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SaE2:										
Saffell--------------------	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Brandon--------------------	A	Medium								
			Jan-Dec	---	---	---	---	None	---	None

Table 17.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
SAF:										
Saffell	B	High								
			Jan-Dec	---	---	---	---	None	---	None
Smithdale	B	High								
			Jan-Dec	---	---	---	---	None	---	None
Brandon	B	High								
			Jan-Dec	---	---	---	---	None	---	None
SeD2:										
Smithdale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SeD3:										
Smithdale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SeE2:										
Smithdale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SgD2:										
Smithdale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Lexington	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SgD3:										
Smithdale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Lexington	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SgE2:										
Smithdale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Lexington	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SgE3:										
Smithdale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None

Table 17.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	*Ft*	*Ft*				
SgE3:										
Lexington	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SnD2:										
Smithdale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Luverne	C	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SnD3:										
Smithdale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Luverne	C	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SnE2:										
Smithdale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Luverne	C	Medium								
			Jan-Dec	---	---	---	---	None	---	None
SRF:										
Smithdale	B	High								
			Jan-Dec	---	---	---	---	None	---	None
Remlik	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Luverne	C	High								
			Jan-Dec	---	---	---	---	None	---	None
SuC:										
Sugargrove	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Sengtown	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Hawthorne	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None

Table 17.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
SuE:										
Sugargrove	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Sengtown	B	High								
			Jan-Dec	---	---	---	---	None	---	None
Hawthorne	B	High								
			Jan-Dec	---	---	---	---	None	---	None
TmC:										
Tarklin	D	High								
			Jan-Apr	0.9-1.5	1.5-2.5	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.9-1.5	1.5-2.5	---	---	None	---	None
Minvale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
TmE:										
Tarklin	D	High								
			Jan-Apr	0.9-1.5	1.5-2.5	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			December	0.9-1.5	1.5-2.5	---	---	None	---	None
Minvale	B	Medium								
			Jan-Dec	---	---	---	---	None	---	None
Ua:										
Udorthents, loamy	B	Very low								
			Jan-Dec	---	---	---	---	None	---	None
Ud:										
Udorthents, loamy	B	Very low								
			Jan-Dec	---	---	---	---	None	---	None
Urban land	---	Very high								
			Jan-Dec	---	---	---	---	None	---	None
Ur:										
Urban land	---	Very high								
			Jan-Dec	---	---	---	---	None	---	None
W:										
Water.										

Table 18.--Soil Features

[See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated]

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
		In		*In*	*In*			
Ak:								
Arkabutla-----	---	---	---	0	0	None	High	Moderate
Ao:								
Arkabutla-----	---	---	---	0	0	None	High	Moderate
Rosebloom	---	---	---	0	0	None	High	High
ArC2:								
Armour--------	---	---	---	0	0	None	Low	Moderate
AuE2:								
Arundel-------	Paralithic bedrock	20-40	Weakly cemented	0	0	Low	High	Moderate
Chickasaw-----	Paralithic bedrock	40-60	Weakly cemented	0	0	Low	High	Moderate
BrB2:								
Brandon-------	---	---	---	0	0	None	Moderate	Moderate
BrC2:								
Brandon-------	---	---	---	0	0	None	Moderate	Moderate
BrC3:								
Brandon-------	---	---	---	0	0	None	Moderate	Moderate
CaB2:								
Calloway------	Fragipan	18-30	Noncemented	0	0	None	High	Moderate
CkA:								
Calloway------	Fragipan	18-30	Noncemented	0	0	None	High	Moderate
Kurk----------	---	---	---	0	0	None	High	Moderate
Cl:								
Cascilla------	---	---	---	0	0	None	Moderate	Moderate
Cn:								
Chenneby------	---	---	---	0	0	None	High	High
CVA:								
Chenneby------	---	---	---	0	0	None	High	High
Enville-------	---	---	---	0	0	None	High	High
Arkabutla-----	---	---	---	0	0	None	High	Moderate
DaC3:								
Deanburg------	---	---	---	0	0	None	Low	Moderate
DeB3:								
Deanburg------	---	---	---	0	0	None	Low	Moderate
DeC2:								
Deanburg------	---	---	---	0	0	None	Low	Moderate
DnB2:								
Deanburg------	---	---	---	0	0	None	Low	Moderate

Table 18.--Soil Features--Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Hardness	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In		*In*	*In*			
DtB2:								
Dulac	Fragipan	16-24	Noncemented	0	0	Low	High	High
	Paralithic bedrock	60-80	Weakly cemented					
Tippah	---	---	---	0	0	None	High	High
DtB3:								
Dulac	Fragipan	12-18	Noncemented	0	0	Low	High	High
	Paralithic bedrock	60-80	Weakly cemented					
Tippah	---	---	---	0	0	None	High	High
DtC2:								
Dulac	Fragipan	16-24	Noncemented	0	0	Low	High	High
	Paralithic bedrock	60-80	Weakly cemented					
Tippah	---	---	---	0	0	None	High	High
DtC3:								
Dulac	Fragipan	12-18	Noncemented	0	0	Low	High	High
	Paralithic bedrock	60-80	Weakly cemented					
Tippah	---	---	---	0	0	None	High	High
DtD2:								
Dulac	Fragipan	16-24	Noncemented	0	0	Low	High	High
	Paralithic bedrock	60-80	Weakly cemented					
Tippah	---	---	---	0	0	None	High	High
DtD3:								
Dulac	Fragipan	12-18	Noncemented	0	0	Low	High	High
	Paralithic bedrock	60-80	Weakly cemented					
Tippah	---	---	---	0	0	None	High	High
Ea:								
Enville	---	---	---	0	0	None	High	High
Eb:								
Enville	---	---	---	0	0	None	High	High
Bibb	---	---	---	0	0	None	High	High
FaB2:								
Falkner	Paralithic bedrock	75-91	Weakly cemented	0	0	None	High	Moderate
FeA:								
Feliciana	---	---	---	0	0	None	Low	Moderate
FeB2:								
Feliciana	---	---	---	0	0	None	Low	Moderate
GrA:								
Grenada	Fragipan	20-36	Noncemented	0	0	None	High	Moderate

Table 18.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
		In		*In*	*In*			
GrB2:								
Grenada	Fragipan	20-36	Noncemented	0	0	None	High	Moderate
HgF:								
Hapludults	---	---	---	0	0	None	Low	Moderate
Gullied land	---	---	---	0	0	---	---	---
HtE:								
Hawthorne	Paralithic bedrock	24-40	Weakly cemented	0	0	None	Moderate	Moderate
HTF:								
Hawthorne	Paralithic bedrock	24-40	Weakly cemented	0	0	None	Moderate	Moderate
Sengtown	---	---	---	0	0	None	High	High
Sugargrove	Paralithic bedrock	20-40	Weakly cemented	0	0	None	Low	Moderate
HuB:								
Humphreys	---	---	---	0	0	None	Low	Moderate
HuC:								
Humphreys	---	---	---	0	0	None	Low	Moderate
Ik:								
Iuka	---	---	---	0	0	None	High	Moderate
KrA:								
Kurk	---	---	---	0	0	None	High	Moderate
LaB2:								
Lax	Fragipan	22-30	Noncemented	0	0	None	High	High
LaC2:								
Lax	Fragipan	22-30	Noncemented	0	0	None	High	High
LbC3:								
Lax	Fragipan	14-18	Noncemented	0	0	None	High	High
LeA:								
Lexington	---	---	---	0	0	None	Low	Moderate
LeB2:								
Lexington	---	---	---	0	0	None	Low	Moderate
LeC2:								
Lexington	---	---	---	0	0	None	Low	Moderate
LeD2:								
Lexington	---	---	---	0	0	None	Low	Moderate
LnB3:								
Lexington	---	---	---	0	0	None	Low	Moderate
LnC3:								
Lexington	---	---	---	0	0	None	Low	Moderate
LnD3:								
Lexington	---	---	---	0	0	None	Low	Moderate

Table 18.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Hardness	Initial	Total		Uncoated steel	Concrete
		In		*In*	*In*			
Lo: Lobelville	---	---	---	0	0	None	High	Moderate
LrA: Loring	Fragipan	20-32	Noncemented	0	0	None	High	Moderate
LrB2: Loring	Fragipan	20-32	Noncemented	0	0	None	High	Moderate
LrC2: Loring	Fragipan	20-32	Noncemented	0	0	None	High	Moderate
LuE2: Luverne	---	---	---	0	0	None	High	High
Ng: Nugent	---	---	---	0	0	None	High	Moderate
Ok: Ochlockonee	---	---	---	0	0	None	High	High
PaB2: Paden	Fragipan	16-24	Noncemented	0	0	None	High	Moderate
PaC2: Paden	Fragipan	16-24	Noncemented	0	0	None	High	Moderate
PaC3: Paden	Fragipan	12-24	Noncemented	0	0	None	High	Moderate
Pc: Pits, clay	---	---	---	0	0	---	---	---
Pg: Pits, gravel or sand	---	---	---	0	0	---	---	---
PoA: Providence	Fragipan	18-34	Noncemented	0	0	None	High	Moderate
PoB2: Providence	Fragipan	18-28	Noncemented	0	0	None	High	Moderate
PoC2: Providence	Fragipan	18-28	Noncemented	0	0	None	High	Moderate
PoD2: Providence	Fragipan	18-28	Noncemented	0	0	None	High	Moderate
PrB3: Providence	Fragipan	12-18	Noncemented	0	0	None	High	Moderate
PrC3: Providence	Fragipan	12-18	Noncemented	0	0	None	High	Moderate
PrD3: Providence	Fragipan	12-18	Noncemented	0	0	None	High	Moderate
Pu: Pruitton	---	---	---	0	0	None	Low	Moderate

Table 18.--Soil Features--Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Hardness	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In		In	In			
Re:								
Riverby	---	---	---	0	0	None	Low	High
Ennis	---	---	---	0	0	None	Moderate	Moderate
RO:								
Rosebloom	---	---	---	0	0	None	High	High
Bibb	---	---	---	0	0	None	High	High
RtA:								
Routon	---	---	---	0	0	None	High	High
RuA:								
Routon	---	---	---	0	0	None	High	High
SaC2:								
Saffell	---	---	---	0	0	None	Moderate	Moderate
Brandon	---	---	---	0	0	None	Moderate	Moderate
SaE2:								
Saffell	---	---	---	0	0	None	Moderate	Moderate
Brandon	---	---	---	0	0	None	Moderate	Moderate
SAF:								
Saffell	---	---	---	0	0	None	Moderate	Moderate
Smithdale	---	---	---	0	0	None	Moderate	High
Brandon	---	---	---	0	0	None	Moderate	Moderate
SeD2:								
Smithdale	---	---	---	0	0	None	Moderate	High
SeD3:								
Smithdale	---	---	---	0	0	None	Moderate	High
SeE2:								
Smithdale	---	---	---	0	0	None	Moderate	High
SgD2:								
Smithdale	---	---	---	0	0	None	Moderate	High
Lexington	---	---	---	0	0	None	Low	Moderate
SgD3:								
Smithdale	---	---	---	0	0	None	Moderate	High
Lexington	---	---	---	0	0	None	Low	Moderate
SgE2:								
Smithdale	---	---	---	0	0	None	Moderate	High
Lexington	---	---	---	0	0	None	Low	Moderate
SgE3:								
Smithdale	---	---	---	0	0	None	Moderate	High
Lexington	---	---	---	0	0	None	Low	Moderate

Table 18.--Soil Features--Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Hardness	Subsidence: Initial	Subsidence: Total	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In		In	In			
SnD2:								
Smithdale	---	---	---	0	0	None	Moderate	High
Luverne	---	---	---	0	0	None	High	High
SnD3:								
Smithdale	---	---	---	0	0	None	Moderate	High
Luverne	---	---	---	0	0	None	High	High
SnE2:								
Smithdale	---	---	---	0	0	None	Moderate	High
Luverne	---	---	---	0	0	None	High	High
SRF:								
Smithdale	---	---	---	0	0	None	Moderate	High
Remlik	---	---	---	0	0	None	Low	High
Luverne	---	---	---	0	0	None	High	High
SuC:								
Sugargrove	Paralithic bedrock	20-40	Weakly cemented	0	0	None	Low	Moderate
Sengtown	---	---	---	0	0	None	High	High
Hawthorne	Paralithic bedrock	24-40	Weakly cemented	0	0	None	Moderate	Moderate
SuE:								
Sugargrove	Paralithic bedrock	20-40	Weakly cemented	0	0	None	Low	Moderate
Sengtown	---	---	---	0	0	None	High	High
Hawthorne	Paralithic bedrock	24-40	Weakly cemented	0	0	None	Moderate	Moderate
TmC:								
Tarklin	Fragipan	18-30	Noncemented	0	0	None	High	Moderate
Minvale	---	---	---	0	0	None	Moderate	High
TmE:								
Tarklin	Fragipan	18-30	Noncemented	0	0	None	High	Moderate
Minvale	---	---	---	0	0	None	Moderate	High
Ua:								
Udorthents, loamy	---	---	---	---	---	---	Low	Moderate
Ud:								
Udorthents, loamy	---	---	---	---	---	---	Low	Moderate
Urban land	---	---	---	---	---	None	---	---
Ur:								
Urban land	---	---	---	---	---	None	---	---

Table 19.--Taxonomic Classification of the Soils

[An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series]

Soil name	Family or higher taxonomic class
Arkabutla	Fine-silty, mixed, active, acid, thermic Fluventic Endoaquepts
Armour	Fine-silty, mixed, active, thermic Ultic Hapludalfs
Arundel	Fine, smectitic, thermic Typic Hapludults
Bibb	Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents
Brandon	Fine-silty, mixed, semiactive, thermic Typic Hapludults
Calloway	Fine-silty, mixed, active, thermic Aquic Fraglossudalfs
Cascilla	Fine-silty, mixed, active, thermic Fluventic Dystrudepts
Chenneby	Fine-silty, mixed, active, thermic Fluvaquentic Dystrudepts
Chickasaw	Fine, smectitic, thermic Vertic Hapludalfs
Deanburg	Fine-loamy, mixed, active, thermic Ultic Hapludalfs
Dulac	Fine-silty, mixed, semiactive, thermic Oxyaquic Fragiudalfs
Ennis	Fine-loamy, siliceous, semiactive, thermic Fluventic Dystrudepts
Enville	Coarse-loamy, siliceous, semiactive, acid, thermic Aeric Fluvaquents
Falkner	Fine-silty, siliceous, active, thermic Aquic Paleudalfs
Feliciana	Fine-silty, mixed, active, thermic Ultic Hapludalfs
Grenada	Fine-silty, mixed, active, thermic Oxyaquic Fraglossudalfs
Hawthorne	Loamy-skeletal, siliceous, semiactive, thermic Typic Dystrudepts
Humphreys	Fine-loamy, mixed, semiactive, thermic Ultic Hapludalfs
Iuka	Coarse-loamy, siliceous, active, acid, thermic Aquic Udifluvents
Kurk	Fine-silty, mixed, active, thermic Aeric Epiaqualfs
Lax	Fine-silty, mixed, semiactive, thermic Typic Fragiudults
Lexington	Fine-silty, mixed, active, thermic Ultic Hapludalfs
Lobelville	Fine-loamy, siliceous, active, thermic Fluvaquentic Dystrudepts
Loring	Fine-silty, mixed, active, thermic Oxyaquic Fragiudalfs
Luverne	Fine, mixed, semiactive, thermic Typic Hapludults
Minvale	Fine-loamy, siliceous, subactive, thermic Typic Paleudults
Nugent	Sandy, siliceous, thermic Typic Udifluvents
Ochlockonee	Coarse-loamy, siliceous, active, acid, thermic Typic Udifluvents
Paden	Fine-silty, mixed, semiactive, thermic Glossic Fragiudults
Providence	Fine-silty, mixed, active, thermic Oxyaquic Fragiudalfs
Pruitton	Fine-loamy, siliceous, semiactive, thermic Fluventic Dystrudepts
Remlik	Loamy, siliceous, subactive, thermic Arenic Hapludults
Riverby	Loamy-skeletal, mixed, semiactive, nonacid, thermic Typic Udifluvents
Rosebloom	Fine-silty, mixed, active, acid, thermic Fluvaquentic Endoaquepts
Routon	Fine-silty, mixed, active, thermic Typic Epiaqualfs
Saffell	Loamy-skeletal, siliceous, semiactive, thermic Typic Hapludults
Sengtown	Fine, mixed, semiactive, thermic Typic Paleudalfs
Smithdale	Fine-loamy, siliceous, subactive, thermic Typic Hapludults
Sugargrove	Fine-loamy, mixed, semiactive, thermic Typic Hapludults
*Tarklin	Fine-loamy, siliceous, semiactive, thermic Typic Fragiudults
Tippah	Fine-silty, mixed, active, thermic Aquic Paleudalfs

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