United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

In cooperation with
the Alabama Agricultural
Experiment Station and the
Alabama Soil and Water
Conservation Committee

Soil Survey of Crenshaw County, Alabama

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.

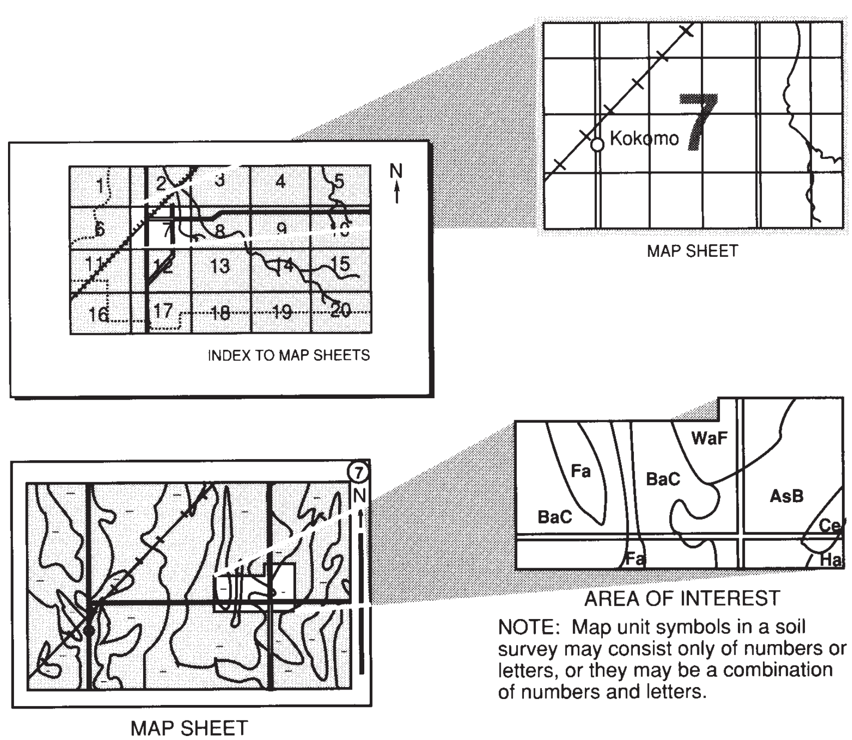
Detailed Soil Maps

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.



NOTE: Map unit symbols in a soil survey may consist only of numbers or letters, or they may be a combination of numbers and letters.

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 (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 2005. Soil names and descriptions were approved in 2005. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2005. This survey was made cooperatively by the Natural Resources Conservation Service, the Alabama Agricultural Experiment Station, the Alabama Cooperative Extension System, the Alabama Soil and Water Conservation Committee, and the Alabama Department of Agriculture and Industries. The survey is part of the technical assistance furnished to the Crenshaw County Soil and Water Conservation District.

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.

Cover: An area of general soil map unit 8, Fuquay-Bonifay-Dothan association. The gently sloping, sandy and loamy soils of this unit are well suited to cultivated crops, hay, pasture, and forestland.

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

Contents

Issued 2007

Foreword

This soil survey contains information that affects land use planning in this survey area. It contains predictions of soil behavior for selected land uses. The survey also highlights soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

This soil survey is designed for many different users. Farmers, ranchers, foresters, and agronomists can use it 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 survey 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 survey 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.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow to bedrock. 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. Broad areas of soils are shown on the general soil map. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described. Information on specific uses is given for each soil. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension System.

Gary Kobylski

Gary Kobylski
State Conservationist
Natural Resources Conservation Service

Soil Survey of
Crenshaw County, Alabama

By James M. Mason, Natural Resources Conservation Service

Fieldwork by James M. Mason, John L. Burns, and Angela L. Warden

United States Department of Agriculture,
Natural Resources Conservation Service,
in cooperation with
the Alabama Agricultural Experiment Station,
the Alabama Cooperative Extension System,
the Alabama Soil and Water Conservation Committee, and
the Alabama Department of Agriculture and Industries

CRENSHAW COUNTY is in the south-central part of Alabama (fig. 1). It is bordered on the north by Montgomery County, on the east by Pike and Coffee Counties, on the south by Covington County, and on the west by Butler and Lowndes Counties. The Conecuh River forms part of the eastern and southern borders. Luverne, the county seat, is near the center of the county. Crenshaw County encompasses 391,030 acres, or about 611 square miles. About 390,920 acres consists of land areas and small bodies of water. About 110 acres consists of large areas of water in lakes and rivers.

Crenshaw County is mostly rural. In 2000, it had a population of 13,665. Luverne, the largest community in the county, had a population of 2,635 (USDC, 2004). Luverne is about 52 miles south of Montgomery. Other communities in the county include Brantley, Dozier, Glenwood, Highland Home, Honoraville, Petrey, and Rutledge.

About 75 percent of the county is forested. About 6,700 acres, or 1.7 percent of the total acreage in the county, was used for cultivated crops in 2001. The major crops were cotton, peanuts, and corn. In 2001, Crenshaw County ranked 12th in production of peanuts in Alabama. An additional 9,500 acres, or 2.4 percent of the total acreage, was harvested for hay (ADAI, 2002). The production of poultry and livestock are important, growing industries in the county. In 2001, Crenshaw County ranked 7th in broiler production and 15th in egg production in Alabama (ADAI, 2002). Approximately 16,000 head of cattle and calves, mostly beef cows, were produced in the county in 2001.

This soil survey updates an earlier survey of Crenshaw County published in 1924 (Stroud and others, 1924). It provides additional information and larger maps, which show the soils in greater detail. Also, it is available electronically.

General Nature of the County

This section gives general information about the survey area. It describes the early history; surface geology; physiography, relief, and drainage; and climate of the county.

Figure 1.—Location of Crenshaw County in Alabama.

Early History

Crenshaw County was created by an act of the Alabama General Assembly on November 30, 1866. It was formed from parts of Butler, Coffee, Covington, Pike, and Lowndes Counties (ADAH, no date). The county was named in honor of Judge Anderson Crenshaw, a distinguished South Carolinian and early settler of neighboring Butler County. The town of Rutledge was selected as the first county seat in 1867. The county seat was moved to Luverne in 1893, just 4 years after its founding, and remains there today.

Surface Geology

The geologic formations exposed in Crenshaw County range in age from Late Cretaceous to Recent (McWilliams, Newton, and Scott, 1968; Smith and others, 1966).

- The Upper Cretaceous geologic unit consists of the Selma Group, which includes the Demopolis Chalk, the Ripley Formation, and the Providence Sand.
- The Paleocene geologic unit consists of the Midway Group, which includes the Clayton Formation and the Porters Creek Formation.
- The Eocene geologic units consist of the Wilcox Group and the Claiborne Group. The Wilcox Group includes the Nanafalia Formation; the Tuscahoma Sand; and the Tallahatta and Hatchetigbee Formations, undifferentiated. The Claiborne Group includes the Lisbon Formation and parts of the Residuum unit.
- The Quaternary geologic units consist of high terrace deposits of the Pleistocene Series and alluvium and low terrace deposits of the Holocene Series.

All of the formations are of sedimentary origin and consist mainly of unconsolidated sediments of sand, gravel, silt, and clay and layers of shale, claystone, siltstone, sandstone, limestone, and chalk.

The Demopolis Chalk is the oldest geologic unit exposed in Crenshaw County. It crops out in the northernmost part of the county near Mount Carmel. It is about 450 feet thick. Only the upper 25 to 35 feet, however, is exposed. Outcrops are composed mainly of highly weathered, grayish, micaceous chalk. Soils that formed in materials weathered from the Demopolis Chalk include Hannon and Sumter soils.

The Ripley Formation overlies the Demopolis Chalk in the north-central and northeastern parts of the county. The Ripley Formation ranges from 240 to 270 feet in thickness and consists mainly of beds of sand and clay. The sand is greenish gray to reddish brown, is fine- to coarse-grained, and contains glauconite and fine gravel. The clay is brownish or grayish, is fossiliferous, and is glauconitic in some exposures. Ledges of glauconitic, calcareous sandstone are common. Soils that formed in materials weathered from the Ripley Formation include Brantley, Hannon, and Sumter soils.

The Providence Sand crops out in the northeastern part of the county. It overlies the Ripley Formation and ranges from 70 to 150 feet in thickness. It is divided into two members, the Perote Member and an upper, unnamed member. The Perote Member ranges from 35 to 75 feet in thickness. It is composed of laminated, fine-grained, clayey sand and sandy clay that are dark gray, glauconitic, micaceous, and fossiliferous. The upper, unnamed member of the Providence Sand ranges from 35 to 75 feet in thickness. It is composed of brownish and reddish, fine- to coarse-grained, micaceous sand that is gravelly and crossbedded. Soils that formed in materials weathered from the Providence Sand include Bonifay, Brantley, Cowarts, Lucy, Orangeburg, Springhill, and Troup soils.

The Clayton Formation crops out in a broad belt in the north-central part of the county. It unconformably overlies the Providence Sand and ranges from 100 to 150 feet in thickness. The Clayton Formation is composed of purple-stained, fine- and medium-grained, clayey sand in the upper part; beds of massive sand and clay in the middle part; and reddish brown, fine- and medium-grained sand in the lower part. In many exposures, irregular layers of limonite-cemented sandstone occur in the lower part. Weathered exposures of the upper beds are glauconitic and contain fragments of fossil shell, limonitic iron ore, and fossiliferous boulders and smaller fragments of chert. Soils that formed in materials weathered from the Clayton Formation include Bonifay, Cowarts, Dothan, Fuquay, Lucy, Nankin, Orangeburg, Springhill, and Troup soils.

The Porters Creek Formation is in the central part of the county. It overlies the Clayton Formation and ranges from 70 to 120 feet in thickness, thinning from west to east. It is composed mainly of highly weathered, fine- and medium-grained, micaceous, clayey sand, sandy clay, and silt. The upper part consists of 10 to 20 feet of fossiliferous, glauconitic sand that contains limonitic iron ore. Soils that formed in materials weathered from the Clayton Formation include Greenville, Luverne, Malbis, Orangeburg, and Williamsville soils.

The Nanafalia Formation crops out in a broad belt in the south-central part of the county. It overlies the Porters Creek Formation and ranges from 110 to 190 feet in thickness. The Nanafalia Formation consists of the Gravel Creek Sand Member, *Ostrea thirsae* beds, and the Grampian Hills Member. The Gravel Creek Sand Member is up to 40 feet thick and consists mainly of brownish and reddish, fine- to very coarse-grained, micaceous, crossbedded sand. Thin beds of lignite and gravel occur in some exposures. The *Ostrea thirsae* beds overlie the Gravel Creek Sand Member and are composed of 20 to 40 feet of glauconitic, clayey sand and sandy clay containing abundant *Ostrea thirsae* (Gabb) and other fossils. The Grampian Hills Member overlies the *Ostrea thirsae* beds and consists of 90 to 110 feet of grayish sandy clay, silt, and siltstone. Soils that formed in materials weathered from the Nanafalia Formation include Arundel, Halso, Luverne, Nankin, and Springhill soils.

The Tuscahoma Sand is exposed in a 10- to 12-mile-wide belt in the southern part of the county. It overlies the Nanafalia Formation and ranges from 120 to 160 feet in thickness, thinning from west to east. It is composed of grayish to brownish, laminated, micaceous clay and silt and grayish to brownish, fine-grained sand. Laminated, glauconitic sand occurs in the lower part of the formation in some exposures. Soils that formed in materials weathered from the Tuscahoma Sand include Bonifay, Dothan, Fuquay, Halso, Luverne, Nankin, Springhill, and Troup soils.

The Hatchetigbee and Tallahatta Formations, undifferentiated, crop out in the southern part of the county. They overlie the Tuscahoma Sand and are not separated in the county because they have similar lithologies. The combined thickness of the unit ranges from 60 to 80 feet. The unit is composed mainly of grayish white, fossiliferous siltstone, silty sandstone, laminated clay, glauconitic sand, and gravelly sand. Soils that formed in material weathered from the Hatchetigbee and Tallahatta Formations, undifferentiated, include Arundel, Halso, Lucy, Luverne, Nankin, Orangeburg, Springhill, and Troup soils.

The Lisbon Formation crops out in the southwest and southeast corners of the county. It overlies the Hatchetigbee and Tallahatta Formations, undifferentiated, and ranges from 30 to 60 feet in thickness. It is composed of brownish to reddish, fine- and medium-grained sand interbedded with brownish clay. Soils that formed in materials weathered from the Lisbon Formation include Bonifay, Fuquay, Lucy, Nankin, Orangeburg, Springhill, and Troup soils.

Residuum overlies the Lisbon Formation and crops out on hilltops in the southeast corner of the county. Residuum is not a geologic formation but is a mappable geologic unit. It is generally less than 40 feet thick and is composed of light gray to reddish purple sandy clay, brownish to reddish gravelly sand, and boulders of fossiliferous chert and limonitic sandstone. Soils that formed in materials weathered from the Residuum unit include Dothan, Greenville, Lucy, Nankin, Orangeburg, Springhill, and Troup soils.

Terrace deposits of the Pleistocene Series overlie the older formations that are adjacent to valleys of the Conecuh River and Patsaliga Creek. The terrace deposits are typically less than 30 feet thick. They consist mainly of poorly sorted, crossbedded sand, gravel, and sandy clay. The soils that formed in materials weathered from these deposits include Bonneau, Compass, Dothan, and Fuquay soils.

Alluvial deposits and low terrace deposits of the Holocene Series are in stream valleys throughout Crenshaw County. These deposits consist of grayish to brownish, poorly sorted sand interbedded with silt and clay. They are typically less than 20 feet thick. Bibb, Iuka, Kinston, Leeper, Mantachie, and Marietta soils are on active flood plains. Bethera, Casemore, Eunola, Ocilla, Pelham, and Rains soils are on low terraces.

Physiography, Relief, and Drainage

Crenshaw County is in the East Gulf Coastal Plain Section of the Coastal Plain Physiographic Province. This area of the Coastal Plain is characterized by gently rolling to strongly dissected, hilly topography. Elevations in the county range from about 200 feet above mean sea level on the flood plains along the Conecuh River at the southern tip of the county to about 650 feet near Mount Carmel in the northern part of the county.

The soils are forming in deposits of Cretaceous, Tertiary, and Quaternary-age sediments that consist primarily of unconsolidated clay, silt, sand, and gravel with lesser amounts of chalk, siltstone, claystone, sandstone, and shale. Quaternary-age sediments that include quartzite and chert gravel are on high terraces that formed during the Pleistocene. The base-level of major streams was at a higher elevation during the Pleistocene than in later epochs. More recent Holocene-age sediments are on terraces and flood plains along the present-day streams (McWilliams, Newton, and Scott, 1968; Smith and others, 1966).

Crenshaw County lies within four subdivisions of the East Gulf Coastal Plain Section: the Blackland Prairie, the Chunnenuggee Hills, the Southern Red Hills, and the Dougherty Plain (Sapp and Emplaincourt, 1975).

The Blackland Prairie District is in the extreme northern part of the county. Most areas of the Blackland Prairie District are forested and are used for timber production and wildlife habitat. The landscape ranges from gently rolling to hilly. The soils range from moderately deep to very deep and formed in materials weathered from chalk, marl, and clayey sediments. The soils are dominantly clayey or loamy and are well drained or moderately well drained.

The Chunnenuggee Hills District is in the northern part of the county. The Ripley Formation and Providence Sand of the late Cretaceous-age Selma Group are exposed in this part of the county. Most areas are forested and are used for timber production and wildlife habitat. The landscape consists of highly dissected hills and has the most rugged topography in the county. The soils are very deep and formed in unconsolidated loamy, sandy, and clayey sediments. Most of the soils in the uplands are well drained or moderately well drained. The soils on the flood plains range from very poorly drained to moderately well drained.

The Southern Red Hills District lies south of the Chunnenuggee Hills and comprises about three-fourths of the county. It consists of several somewhat parallel belts of hills and ridges trending from the western part of the county in a southeasterly direction. The landscape ranges from nearly level to hilly. Most areas are forested and are used for timber production and wildlife habitat. A significant acreage, however, is used for cultivated crops, pasture, or hay. The soils range from moderately deep to very deep and formed in unconsolidated loamy, sandy, and clayey sediments or in residuum from siltstone, claystone, or shale. Most of the soils in the uplands are somewhat excessively drained, well drained, or moderately well drained. The soils on the flood plains range from very poorly drained to moderately well drained.

The Dougherty Plain District is in the southeastern corner of the county. The Lisbon Formation of the late Eocene-age Claiborne Group and Residuum of Eocene or Miocene age are exposed in this part of the county. The landscape ranges from nearly level to hilly. Most areas are forested and are used for timber production and wildlife habitat. A significant acreage, however, is used for cultivated crops, pasture, or hay. The soils are very deep and are dominantly loamy or sandy. They formed in unconsolidated loamy and sandy sediments. Most of the soils in the uplands are somewhat excessively drained or well drained. The soils on the flood plains range from very poorly drained to moderately well drained.

Most of the streams in Crenshaw County drain southward into Patsaliga Creek or the Conecuh River. Most of the northern, central, and southwestern parts of the county are drained by Patsaliga Creek. Major streams draining into Patsaliga Creek include Blue, Little Patsaliga, Piney Woods, and Sweetwater Creeks. The southeastern third of the county is drained by the Conecuh River. Major streams draining into the Conecuh River include Dry, Bushy, Buck, Hornet, Moody Mill, and Three Mile Creeks. Stream valleys generally are narrow in the upper reaches and become broader in the lower reaches.

A very small area in the northern part of the county drains into the Alabama River. Streams that drain northward into the Alabama River include Beaver Dam and Pintlala Creeks.

Climate

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

The climate data in tables 1, 2, and 3 are from a climate station at Highland Home, Alabama. Thunderstorm days, relative humidity, percent sunshine, and wind information are estimated from a first order station at Montgomery, Alabama.

Table 1 gives data on temperature and precipitation for the survey area as recorded at Highland Home 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 48 degrees F and the average daily minimum temperature is 37 degrees. The lowest temperature on record, which occurred at Highland Home on January 21, 1985, is -3 degrees. In summer, the average temperature is 79 degrees and the average daily maximum temperature is 90 degrees. The highest temperature, which occurred at Highland Home on July 15, 1980, is 105 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 56 inches. Of this, about 40 inches, or 72 percent, usually falls in March through November. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 8.1 inches at Highland Home on March 30, 1960. Thunderstorms occur on about 59 days each year, and most occur in July.

The average seasonal snowfall is 1.0 inch. The greatest snow depth at any one time during the period of record was 12 inches, which occurred on February 10, 1973. On an average, less than 1 day per year has at least 1 inch of snow on the ground.

The average relative humidity in mid-afternoon is about 62 percent. Humidity is higher at night, and the average at dawn is about 86 percent. The sun shines 63 percent of the time possible in summer and 50 percent in winter. The prevailing wind is from the south. Average wind speed is highest, 8.3 miles per hour, in March.

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept or model of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

This survey area was mapped at two levels of detail. At the more detailed level, map units are narrowly defined. Map unit boundaries were plotted and verified at closely spaced intervals. At the less detailed level, map units are broadly defined.

Boundaries were plotted and verified at wider intervals. In the legend for the detailed soil maps, narrowly defined units are indicated by symbols in which the first letter is a capital and the second is lowercase. For broadly defined units, the first and second letters are capitals.

The descriptions, names, and delineations of the soils in this survey area do not fully agree with those of the soils in adjacent survey areas. Differences are the result of a better knowledge of soils, modifications in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey areas.

General Soil Map Units

The general soil map in this publication shows broad areas that have a distinctive pattern of soils, relief, and drainage. 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.

Each map unit is rated for cultivated crops, pasture and hay, forestland, and urban uses in table 4. Cultivated crops are those typically grown in the survey area. Pasture and hay refer to improved, locally grown grasses and legumes. Forestland refers to areas of native or introduced trees. Urban uses include residential, commercial, and industrial developments.

The boundaries of the general soil map units in Crenshaw County were matched, where possible, with those of the previously completed surveys of Butler, Coffee, Covington, Montgomery, and Pike Counties. In a few areas, however, the lines do not join and the names of the map units differ. These differences result mainly because of changes in soil series concepts, differences in map unit design, and changes in soil patterns near survey area boundaries.

1. Brantley-Sumter-Hannon

Dominantly gently sloping to moderately steep, very deep, acid soils that have a loamy surface layer and a clayey subsoil; moderately deep, alkaline soils that have a loamy surface layer and subsoil; and very deep soils that have a clayey surface layer and subsoil; on uplands

Setting

Location in the survey area: Northern part
Landform: Ridges and hillslopes
Landform position: Brantley—summits of high ridges and on the upper parts of side slopes; Sumter—shoulder slopes, knolls, and saddles; Hannon—crests of low ridges, knolls, and backslopes
Slope: Dominantly 5 to 30 percent, but ranges from 2 to 50 percent

Composition

Percent of the survey area: 6
Brantley and similar soils: 50 percent

Sumter and similar soils: 15 percent
Hannon and similar soils: 12 percent
Minor soils: 23 percent, including Bibb, Casemore, Halso, Iuka, Leeper, Lucy, Marietta, Smithdale, and Troup soils

Soil Characteristics

Brantley

Surface layer: Dark yellowish brown sandy loam
Subsurface layer: Yellowish brown sandy loam
Subsoil: Upper part—red sandy clay; next part—red sandy clay loam; lower part—yellowish red sandy clay loam
Substratum: Upper part—stratified strong brown sandy loam and yellowish red loamy sand; lower part—stratified yellowish brown sandy loam and loamy sand
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 50 percent
Parent material: Stratified loamy and clayey sediments

Sumter

Surface layer: Very dark grayish brown and olive brown clay loam
Subsoil: Light olive brown clay loam and loam
Substratum: Upper part—light yellowish brown sandy clay loam; lower part—light brownish gray chalk that has thin strata of marl and indurated limestone
Depth class: Moderately deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 35 percent
Parent material: Loamy residuum weathered from interbedded chalk, marl, and indurated limestone

Hannon

Surface layer: Very dark gray clay
Subsoil: Upper part—yellowish red clay; next part—strong brown clay and light olive brown silty clay; lower part—light olive brown clay loam that has brownish mottles
Substratum: Upper part—light yellowish brown clay loam that has masses of calcium carbonate; next part—light olive brown and brownish yellow sandy clay loam that has masses of calcium carbonate; lower part—light olive brown loam that has masses of calcium carbonate
Depth class: Very deep
Drainage class: Moderately well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 35 percent
Parent material: Acid, clayey sediments and the underlying beds of thinly stratified, alkaline, loamy and clayey sediments, chalk, and marl

Minor soils

- The poorly drained Bibb and moderately well drained Iuka and Marietta soils on narrow flood plains
- The loamy, somewhat poorly drained Casemore soils on low terraces
- The clayey, moderately well drained Halso soils in saddles on the higher ridges
- The clayey, somewhat poorly drained Leeper soils on broad flood plains
- The sandy Lucy and Troup soils on high knolls and on the upper parts of side slopes
- The very deep, loamy Smithdale soils on the upper parts of side slopes

Use and Management

Major uses: Forestland, wildlife habitat, pasture, and hayland

Cropland
Management concerns: Brantley—restricted use of equipment and erodibility; Sumter and Hannon—restricted use of equipment, erodibility, and tilth

Pasture and hayland
Management concerns: Restricted use of equipment and erodibility

Forestland
Management concerns: Brantley—restricted use of equipment, erodibility, and competition from undesirable plants; Sumter and Hannon—restricted use of equipment, erodibility, seedling survival, and competition from undesirable plants

Urban development
Management concerns: Brantley—slope, restricted permeability, and shrink-swell potential; Sumter—slope, restricted permeability, depth to bedrock, and low strength; Hannon—slope, shrink-swell potential, restricted permeability, and low strength

2. Mantachie-Kinston-Iuka

Dominantly level and nearly level, somewhat poorly drained, poorly drained, and moderately well drained soils that have a loamy surface layer and subsoil or substratum and poorly drained soils that have thick, sandy surface and subsurface layers and a loamy subsoil; on flood plains and low stream terraces

Setting

Location in the survey area: Parallel to the Conecuh River and Patsaliga Creek and their major tributaries
Landform: Mantachie, Kinston, and Iuka—flood plains; Pelham—low stream terraces
Landform position: Mantachie—flat or slightly convex slopes on low parts of natural levees and in backswamps; Kinston—flat or concave slopes in backswamps; Iuka—convex slopes on high and intermediate parts of natural levees; Pelham—concave slopes on low terraces
Slope: 0 to 2 percent

Composition

Percent of the survey area: 10
Mantachie soils: 22 percent
Kinston and similar soils: 20 percent
Iuka soils: 18 percent
Pelham soils: 10 percent
Minor soils: 30 percent, including Bethera, Bibb, Blanton, Bonneau, Eunola, Ocilla, and Rains soils and Fluvaquents

Soil Characteristics

Mantachie
Surface layer: Very dark grayish brown loam and dark grayish brown sandy clay loam
Subsoil: Upper part—yellowish brown fine sandy loam that has brownish and grayish mottles; next part—yellowish brown sandy clay loam that has brownish and grayish mottles; lower part—light brownish gray and gray sandy clay loam that has brownish mottles
Substratum: Upper part—light brownish gray sandy clay loam that has brownish

mottles; lower part—light brownish gray fine sandy loam that has brownish mottles
Depth class: Very deep
Drainage class: Somewhat poorly drained
Seasonal high water table: Apparent, at a depth of 0.5 to 1.5 feet from December through April
Slope: 0 to 1 percent
Parent material: Loamy alluvium

Kinston
Surface layer: Dark gray loam that has reddish mottles
Subsoil: Upper part—gray loam that has brownish mottles; lower part—gray sandy clay loam that has brownish and reddish mottles
Substratum: Upper part—grayish brown loam that has brownish and reddish mottles; next part—gray sandy clay loam and clay loam having brownish mottles; lower part—gray sandy clay loam that has brownish mottles and light brownish gray strata of sandy loam
Depth class: Very deep
Drainage class: Poorly drained
Seasonal high water table: Apparent, at the surface to a depth of 1 foot from December through April
Slope: 0 to 1 percent
Parent material: Stratified loamy and sandy alluvium

Iuka
Surface layer: Brown and yellowish brown fine sandy loam
Substratum: Upper part—light yellowish brown fine sandy loam that has grayish mottles; next part—light yellowish brown sandy clay loam that has brownish and grayish mottles; lower part—gray sandy clay loam and clay loam having brownish mottles
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Apparent, at a depth of 1 to 3 feet from December through April
Slope: 0 to 2 percent
Parent material: Stratified loamy and sandy alluvium

Pelham
Surface layer: Very dark gray loamy fine sand
Subsurface layer: Upper part—dark gray loamy fine sand that has brownish mottles; lower part—light gray loamy fine sand that has brownish mottles
Subsoil: Upper part—gray sandy loam that has brownish mottles; next part—gray sandy clay loam that has brownish mottles; lower part—grayish brown and light brownish gray sandy clay loam that has brownish and reddish mottles
Depth class: Very deep
Drainage class: Poorly drained
Seasonal high water table: Perched, at the surface to a depth of 1 foot from December through April
Slope: 0 to 2 percent
Parent material: Sandy and loamy sediments

Minor soils
- The poorly drained, clayey Bethera and loamy Rains soils on low terraces
- The poorly drained Bibb soils, which have a lower content of clay in the substratum than the Kinston soils, in backswamps
- The sandy, well drained Blanton and Bonneau soils on mid-level terraces

- The moderately well drained, loamy Eunola soils on low terraces
- The very poorly drained Fluvaquents in depressions on flood plains and low terraces
- The sandy, somewhat poorly drained Ocilla soils in flat or slightly convex positions on low terraces

Use and Management

Major uses: Forestland, wildlife habitat, pasture, and hayland

Cropland
Management concerns: Mantachie, Kinston, and Iuka—flooding, wetness, and restricted use of equipment; Pelham—wetness, droughtiness, nutrient leaching, and restricted use of equipment

Pasture and hayland
Management concerns: Mantachie, Kinston, and Iuka—flooding, wetness, and restricted use of equipment; Pelham—wetness, droughtiness, nutrient leaching, and restricted use of equipment

Forestland
Management concerns: Restricted use of equipment, seedling survival, and competition from undesirable plants

Urban development
Management concerns: Flooding and wetness

3. Nankin-Orangeburg-Lucy

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

Setting

Location in the survey area: North-central and southern parts
Landform: Ridges and hillslopes
Landform position: Nankin and Springhill—side slopes; Orangeburg and Lucy—summits, knolls, and the upper parts of side slopes
Slope: Dominantly 5 to 25 percent, but ranges from 0 to 35 percent

Composition

Percent of the survey area: 38
Nankin soils: 22 percent
Orangeburg soils: 20 percent
Lucy soils: 19 percent
Springhill soils: 18 percent
Minor soils: 21 percent, including Bibb, Blanton, Cowarts, Dothan, Greenville, Iuka, Luverne, Troup, and Williamsville soils

Soil Characteristics

Nankin
Surface layer: Dark yellowish brown fine sandy loam
Subsoil: Upper part—yellowish red sandy clay; next part—red sandy clay loam that has brownish mottles; lower part—red sandy clay loam that has thin strata of loamy sand
Substratum: Red sandy loam that has thin strata of brownish sandy loam and loamy sand

Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 15 to 35 percent
Parent material: Clayey and loamy marine sediments

Orangeburg
Surface layer: Brown and dark yellowish brown sandy loam
Subsoil: Upper part—yellowish red sandy clay loam; lower part—red sandy clay loam that has brownish mottles
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 0 to 8 percent
Parent material: Loamy marine sediments

Lucy
Surface layer: Yellowish brown loamy sand
Subsurface layer: Light yellowish brown and yellowish brown loamy sand
Subsoil: Upper part—yellowish red sandy loam; next part—yellowish red sandy clay loam; lower part—red sandy clay loam
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 0 to 35 percent
Parent material: Sandy and loamy sediments

Springhill
Surface layer: Brown sandy loam
Subsoil: Upper part—red sandy clay loam; lower part—red sandy loam that has brownish mottles
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 5 to 35 percent
Parent material: Loamy marine sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Blanton and Troup soils on summits, side slopes, and footslopes
- The loamy Cowarts soils, which have a brownish subsoil, on side slopes
- The loamy Dothan soils, which have a brownish subsoil that has an accumulation of plinthite, on broad ridges
- The clayey Greenville soils, which have a dark red or dark reddish brown subsoil, on summits of broad ridges and on side slopes
- The clayey Luverne and Williamsville soils, which have a mixed clay mineralogy, on summits and side slopes

Use and Management

Major uses: Forestland, pasture, and wildlife habitat

Cropland
Management concerns: Nankin, Orangeburg, and Springhill—erodibility and restricted use of equipment; Lucy—droughtiness, restricted use of equipment, and erodibility

Pasture and hayland
Management concerns: Nankin, Orangeburg, and Springhill—erodibility and restricted use of equipment; Lucy—droughtiness, restricted use of equipment, and erodibility

Forestland
Management concerns: Nankin and Springhill—erodibility and restricted use of equipment; Orangeburg—no significant concerns; Lucy—seedling survival, restricted use of equipment, and erodibility

Urban development
Management concerns: Nankin—slope and restricted permeability; Orangeburg—no significant concerns; Lucy and Springhill—slope

4. Cowarts-Springhill-Troup

Gently sloping to moderately steep, well drained soils that have a loamy surface layer and a loamy subsoil and somewhat excessively drained soils that have thick, sandy surface and subsurface layers and a loamy subsoil; on uplands

Setting

Location in the survey area: East-central part
Landform: Ridges and hillslopes
Landform position: Side slopes, knolls, and summits of narrow ridges
Slope: Dominantly 5 to 20 percent, but ranges from 0 to 35 percent

Composition

Percent of the survey area: 0.4
Cowarts soils: 40 percent
Springhill soils: 25 percent
Troup soils: 20 percent
Minor soils: 15 percent, including Bibb, Dothan, Faceville, Fuquay, Iuka, Lucy, Nankin, and Orangeburg soils

Soil Characteristics

Cowarts
Surface layer: Dark grayish brown sandy loam
Subsurface layer: Yellowish brown sandy loam
Subsoil: Upper part—yellowish brown sandy clay loam; next part—yellowish brown sandy clay loam that has reddish and brownish mottles; lower part—brownish yellow sandy loam that has grayish mottles
Substratum: Yellowish brown and yellowish red sandy loam that has reddish and grayish mottles
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 5 to 20 percent
Parent material: Loamy sediments

Springhill
Surface layer: Brown sandy loam
Subsoil: Upper part—red sandy clay loam; lower part—red sandy loam that has brownish mottles
Depth class: Very deep
Drainage class: Well drained

Depth to seasonal high water table: More than 6 feet
Slope: 5 to 35 percent
Parent material: Loamy marine sediments

Troup
Surface layer: Brown loamy sand
Subsurface layer: Upper part—yellowish brown loamy sand; lower part—strong brown loamy sand
Subsoil: Upper part—yellowish red sandy clay loam; lower part—red sandy clay loam
Depth class: Very deep
Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6 feet
Slope: 0 to 35 percent
Parent material: Sandy and loamy sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The loamy Dothan soils, which have an accumulation of plinthite in the subsoil, on summits and side slopes
- The clayey Faceville soils on summits
- The sandy, well drained Fuquay and Lucy soils on summits and side slopes
- The clayey Nankin soils on side slopes
- The loamy Orangeburg soils on summits

Use and Management

Major uses: Pasture, hayland, and forestland

Cropland
Management concerns: Cowarts and Springhill—erodibility and restricted use of equipment; Troup—droughtiness, restricted use of equipment, erodibility, and nutrient leaching

Pasture and hayland
Management concerns: Cowarts and Springhill—erodibility and restricted use of equipment; Troup—droughtiness, restricted use of equipment, erodibility, and nutrient leaching

Forestland
Management concerns: Cowarts and Springhill—erodibility; Troup—seedling survival and restricted use of equipment

Urban development
Management concerns: Cowarts—slope and restricted permeability; Springhill and Troup—slope

5. Orangeburg-Dothan-Springhill

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

Setting

Location in the survey area: East-central and southern parts
Landform: Ridges and hillslopes
Landform position: Orangeburg and Dothan—summits and side slopes; Springhill—side slopes
Slope: Dominantly 2 to 15 percent, but ranges from 0 to 35 percent

Composition

Percent of the survey area: 12
Orangeburg and similar soils: 28 percent
Dothan and similar soils: 25 percent
Springhill soils: 15 percent
Minor soils: 32 percent, including Bibb, Bonifay, Faceville, Fuquay, Greenville, Iuka, Lucy, Nankin, Red Bay, and Troup soils and Udorthents

Soil Characteristics

Orangeburg
Surface layer: Brown and dark yellowish brown sandy loam
Subsoil: Upper part—yellowish red sandy clay loam; lower part—red sandy clay loam that has brownish mottles
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 0 to 8 percent
Parent material: Loamy marine sediments

Dothan
Surface layer: Brown sandy loam
Subsoil: Upper part—brownish yellow sandy clay loam; next part—brownish yellow sandy clay loam that has reddish mottles; lower part—brownish yellow and strong brown sandy clay loam that has reddish, brownish, and grayish mottles and has masses of nodular plinthite
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: Perched, at a depth of 3 to 5 feet from December through March
Slope: 0 to 8 percent
Parent material: Loamy sediments

Springhill
Surface layer: Brown sandy loam
Subsoil: Upper part—red sandy clay loam; lower part—red sandy loam that has brownish mottles
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 5 to 35 percent
Parent material: Loamy marine sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Bonifay, Fuquay, Lucy, and Troup soils on summits and side slopes
- The clayey Faceville and Greenville soils on summits and side slopes
- The clayey Nankin soils on side slopes
- The loamy Red Bay soils, which have a dark red or dark reddish brown subsoil, on summits and side slopes
- Scattered areas of Udorthents in areas that have been strip mined

Use and Management

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

Cropland
Management concerns: Erodibility

Pasture and hayland
Management concerns: Erodibility

Forestland
Management concerns: Orangeburg and Springhill—no significant concerns; Dothan—competition from undesirable plants

Urban development
Management concerns: Orangeburg and Springhill—no significant concerns; Dothan—restricted permeability

6. Orangeburg-Malbis

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

Setting

Location in the survey area: West-central part
Landform: Ridges
Landform position: Summits and side slopes
Slope: Dominantly 2 to 8 percent, but ranges from 0 to 15 percent

Composition

Percent of the survey area: 3
Orangeburg and similar soils: 45 percent
Malbis and similar soils: 35 percent
Minor soils: 20 percent, including Bibb, Greenville, Iuka, Lucy, Luverne, Nankin, Smithdale, and Troup soils

Soil Characteristics

Orangeburg
Surface layer: Brown and dark yellowish brown sandy loam
Subsoil: Upper part—yellowish red sandy clay loam; lower part—red sandy clay loam that has brownish mottles
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 0 to 8 percent
Parent material: Loamy marine sediments

Malbis
Surface layer: Brown fine sandy loam
Subsoil: Upper part—yellowish brown fine sandy loam and sandy clay loam; next part—yellowish brown sandy clay loam that has brownish mottles and has masses of nodular plinthite; lower part—yellowish brown sandy clay loam that has brownish, reddish, and grayish mottles and has masses of nodular plinthite
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: Perched, at a depth of 2.5 to 4 feet from December through March
Slope: 1 to 8 percent
Parent material: Loamy sediments

Minor soils

- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The clayey Greenville soils on summits and side slopes
- The sandy Lucy and Troup soils on summits and side slopes
- The clayey Luverne and Nankin soils on side slopes
- The loamy Smithdale soils on side slopes

Use and Management

Major uses: Cultivated crops, pasture, hayland, homesites, and wildlife habitat

Cropland
Management concerns: Erodibility

Pasture and hayland
Management concerns: Erodibility

Forestland
Management concerns: Orangeburg—no significant concerns; Malbis—competition from undesirable plants

Urban development
Management concerns: Orangeburg—no significant concerns; Malbis—restricted permeability

7. Luverne-Troup-Smithdale

Dominantly gently sloping to moderately steep, well drained soils that have a loamy surface layer and a clayey or loamy subsoil and somewhat excessively drained soils that have thick, sandy surface and subsurface layers and a loamy subsoil; on uplands

Setting

Location in the survey area: Northwestern part
Landform: Ridges and hillslopes
Landform position: Luverne and Troup—summits of narrow ridges, knolls, and side slopes; Smithdale—side slopes
Slope: Dominantly 5 to 25 percent, but ranges from 0 to 35 percent

Composition

Percent of the survey area: 0.5
Luverne soils: 35 percent
Troup soils: 30 percent
Smithdale soils: 25 percent
Minor soils: 10 percent, including Alaga, Bibb, Blanton, Iuka, Lucy, and Orangeburg soils

Soil Characteristics

Luverne
Surface layer: Dark grayish brown and yellowish brown sandy loam
Subsoil: Upper part—yellowish red and red sandy clay; next part—yellowish red sandy clay loam that has yellowish mottles; lower part—yellowish red sandy loam that has reddish and grayish mottles
Substratum: Upper part—strong brown sandy loam that has reddish mottles; lower part—stratified strong brown sandy loam and gray loamy sand

Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 35 percent
Parent material: Stratified clayey and loamy marine sediments

Troup
Surface layer: Brown loamy sand
Subsurface layer: Upper part—yellowish brown loamy sand; lower part—strong brown loamy sand
Subsoil: Upper part—yellowish red sandy clay loam; lower part—red sandy clay loam
Depth class: Very deep
Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6 feet
Slope: 0 to 35 percent
Parent material: Sandy and loamy sediments

Smithdale
Surface layer: Dark grayish brown sandy loam
Subsurface layer: Yellowish red sandy loam
Subsoil: Upper part—red sandy clay loam; lower part—red sandy loam that has streaks of brownish sand
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 8 to 35 percent
Parent material: Loamy sediments

Minor soils
- The sandy Alaga soils, which do not have loamy layers within a depth of 80 inches, on side slopes and footslopes
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy, well drained Blanton and Lucy soils on side slopes and summits of narrow ridges
- The loamy Orangeburg soils on summits and side slopes

Use and Management

Major uses: Forestland and wildlife habitat

Cropland
Management concerns: Erodibility and restricted use of equipment

Pasture and hayland
Management concerns: Erodibility and restricted use of equipment

Forestland
Management concerns: Luverne—erodibility, restricted use of equipment, and competition from undesirable plants; Troup—seedling survival, erodibility, and restricted use of equipment; Smithdale—erodibility and restricted use of equipment

Urban development
Management concerns: Luverne—slope, restricted permeability, low strength, and shrink-swell potential; Troup and Smithdale—slope

8. Fuquay-Bonifay-Dothan

Dominantly gently sloping and moderately sloping, well drained soils that have thick, sandy surface and subsurface layers and a loamy subsoil and well drained soils that have a loamy surface layer and subsoil; on uplands

Setting

Location in the survey area: Parallel to the Conecuh River and Patsaliga Creek
Landform: High stream terraces
Landform position: Summits and side slopes
Slope: Dominantly 2 to 8 percent, but ranges from 0 to 15 percent

Composition

Percent of the survey area: 10
Fuquay soils: 40 percent
Bonifay soils: 23 percent
Dothan soils: 15 percent
Minor soils: 22 percent, including Bibb, Blanton, Compass, Iuka, Lucy, Nankin, Orangeburg, Springhill, and Troup soils

Soil Characteristics

Fuquay
Surface layer: Grayish brown loamy fine sand
Subsurface layer: Yellowish brown and brownish yellow loamy fine sand
Subsoil: Upper part—brownish yellow sandy loam; next part—strong brown sandy clay loam that has reddish mottles and has masses of nodular plinthite; lower part—mottled brownish, reddish, and grayish sandy clay loam that has masses of nodular plinthite
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: Perched, at a depth of 4 to 6 feet from December through March
Slope: 0 to 8 percent
Parent material: Sandy and loamy sediments

Bonifay
Surface layer: Dark yellowish brown loamy sand
Subsurface layer: Light yellowish brown, brownish yellow, and yellowish brown loamy sand
Subsoil: Upper part—brownish yellow sandy clay loam that has reddish and brownish mottles and has masses of nodular plinthite; lower part—mottled reddish, brownish, and grayish sandy clay loam that has masses of nodular plinthite
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: Perched, at a depth of 4 to 5 feet from December through March
Slope: 0 to 8 percent
Parent material: Sandy and loamy sediments

Dothan
Surface layer: Brown sandy loam
Subsoil: Upper part—brownish yellow sandy clay loam; next part—brownish yellow sandy clay loam that has reddish mottles; lower part—brownish yellow and strong brown sandy clay loam that has reddish, brownish, and grayish mottles and has masses of nodular plinthite

Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: Perched, at a depth of 3 to 5 feet from December through March
Slope: 0 to 8 percent
Parent material: Loamy sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Blanton, Lucy, and Troup soils, which do not have an accumulation of plinthite in the subsoil, on summits and side slopes
- The loamy, moderately well drained Compass soils on summits
- The clayey Nankin soils on side slopes
- The loamy Orangeburg soils, which have a reddish subsoil, on summits and side slopes of high ridges
- The loamy Springhill soils, which have a reddish subsoil, on side slopes

Use and Management

Major uses: Cultivated crops, pasture, and hayland

Cropland
Management concerns: Fuquay and Bonifay—droughtiness, erodibility, and nutrient leaching; Dothan—erodibility

Pasture and hayland
Management concerns: Fuquay and Bonifay—droughtiness and nutrient leaching; Dothan—erodibility

Forestland
Management concerns: Fuquay and Bonifay—seedling survival; Dothan—competition from undesirable plants

Urban development
Management concerns: Restricted permeability and wetness

9. Troup-Lucy

Dominantly gently sloping to strongly sloping, somewhat excessively drained and well drained soils that have thick, sandy surface and subsurface layers and a loamy subsoil; on uplands

Setting

Location in the survey area: Southeastern part
Landform: Ridges and hillslopes
Landform position: Summits and side slopes
Slope: Dominantly 2 to 8 percent, but ranges from 0 to 35 percent

Composition

Percent of the survey area: 3
Troup soils: 70 percent
Lucy and similar soils: 20 percent
Minor soils: 10 percent, including Bibb, Bonifay, Cowarts, Fuquay, Iuka, Nankin, Orangeburg, and Springhill soils

Soil Characteristics

Troup
Surface layer: Brown loamy sand

Subsurface layer: Upper part—yellowish brown loamy sand; lower part—strong brown loamy sand
Subsoil: Upper part—yellowish red sandy clay loam; lower part—red sandy clay loam
Depth class: Very deep
Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6 feet
Slope: 0 to 35 percent
Parent material: Sandy and loamy sediments

Lucy
Surface layer: Yellowish brown loamy sand
Subsurface layer: Light yellowish brown and yellowish brown loamy sand
Subsoil: Upper part—yellowish red sandy loam; next part—yellowish red sandy clay loam; lower part—red sandy clay loam
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 0 to 35 percent
Parent material: Sandy and loamy sediments

Minor Soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Bonifay and Fuquay soils, which have an accumulation of plinthite in the subsoil, on summits and side slopes
- The loamy Cowarts and Springhill soils on side slopes
- The clayey Nankin soils on side slopes
- The loamy Orangeburg soils on summits and side slopes

Use and Management

Major uses: Hayland, pasture, forestland, and cultivated crops

Cropland
Management concerns: Droughtiness, nutrient leaching, erodibility, and restricted use of equipment

Pasture and hayland
Management concerns: Droughtiness, nutrient leaching, and restricted use of equipment

Forestland
Management concerns: Seedling survival and restricted use of equipment

Urban development
Management concerns: Slope in the steeper areas

10. Compass

Dominantly nearly level to gently sloping, moderately well drained soils that have a sandy surface layer and a loamy subsoil; on uplands and high stream terraces

Setting

Location in the survey area: East-central part
Landform: Ridges and high stream terraces
Landform position: Summits and shoulder slopes
Slope: Dominantly 1 to 3 percent, but ranges from 0 to 8 percent

Composition

Percent of the survey area: 0.4
Compass soils: 85 percent
Minor soils: 15 percent, including Bibb, Blanton, Bonifay, Cowarts, Dothan, Fuquay, Iuka, and Nankin soils

Soil Characteristics

Compass
Surface layer: Brown loamy sand
Subsoil: Upper part—yellowish brown and brownish yellow sandy loam; next part—brownish yellow sandy loam and sandy clay loam having grayish and reddish mottles and masses of nodular plinthite; lower part—mottled reddish, brownish, and grayish sandy clay loam that has masses of nodular plinthite
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 2.5 to 3.5 feet from December through March
Slope: 1 to 3 percent
Parent material: Loamy sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Blanton, Bonifay, and Fuquay soils on summits and side slopes
- Cowarts soils, which do not have an accumulation of plinthite in the subsoil, on side slopes
- Dothan soils, which have a higher content of clay in the subsoil than the Compass soils, on summits
- The clayey Nankin soils on side slopes

Use and Management

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

Cropland
Management concerns: Erodibility

Pasture and hayland
Management concerns: No significant concerns

Forestland
Management concerns: Competition from undesirable plants

Urban development
Management concerns: Restricted permeability and wetness

11. Halso-Luverne

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

Setting

Location in the survey area: Southwestern part
Landform: Ridges and hillslopes
Landform position: Summits of narrow ridges and on side slopes
Slope: Dominantly 5 to 15 percent, but ranges from 2 to 35 percent

Composition

Percent of the survey area: 8.4
- Halso soils: 40 percent
- Luverne soils: 40 percent
- Minor soils: 20 percent, including Arundel, Bibb, Iuka, Lucy, Orangeburg, Springhill, and Williamsville soils

Soil Characteristics

Halso
Surface layer: Brown fine sandy loam
Subsoil: Upper part—yellowish red clay; next part—yellowish red clay that has grayish and brownish mottles; lower part—strong brown clay that has brownish and grayish mottles
Substratum: Upper part—gray and yellowish red clay; lower part—gray clayey shale
Depth class: Deep
Drainage class: Moderately well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 20 percent
Parent material: Clayey marine sediments

Luverne
Surface layer: Dark grayish brown and yellowish brown sandy loam
Subsoil: Upper part—yellowish red and red sandy clay; next part—yellowish red sandy clay loam that has yellowish mottles; lower part—yellowish red sandy loam that has reddish and grayish mottles
Substratum: Upper part—strong brown sandy loam that has reddish mottles; lower part—stratified strong brown sandy loam and gray loamy sand
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 35 percent
Parent material: Stratified clayey and loamy marine sediments

Minor soils
- The moderately deep Arundel soils on summits and knolls
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Lucy and loamy Orangeburg soils on summits and knolls
- The loamy Springhill soils on side slopes
- The very deep, well drained Williamsville soils, which have fragments of fossil shell and accumulations of glauconite in the subsoil, on side slopes

Use and Management

Major uses: Forestland, pasture, and wildlife habitat

Cropland
Management concerns: Erodibility and restricted use of equipment

Pasture and hayland
Management concerns: Erodibility and restricted use of equipment

Forestland
Management concerns: Halso—erodibility, restricted use of equipment, seedling survival, and competition from undesirable plants; Luverne—restricted use of equipment, erodibility, and competition from undesirable plants

Urban development
Management concerns: Slope, restricted permeability, shrink-swell potential, and low strength

12. Arundel-Halso

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

Setting

Location in the survey area: South-central part
Landform: Ridges and hillslopes
Landform position: Summits of narrow ridges and on side slopes
Slope: Dominantly 5 to 20 percent, but ranges from 2 to 35 percent

Composition

Percent of the survey area: 8.3
Arundel soils: 62 percent
Halso soils: 10 percent
Minor soils: 28 percent, including Bibb, Brantley, Iuka, Lucy, Luverne, Orangeburg, Springhill, and Williamsville soils

Soil Characteristics

Arundel
Surface layer: Very dark grayish brown and dark grayish brown fine sandy loam
Subsoil: Upper part—red clay; lower part—yellowish red sandy clay that has brownish mottles
Substratum: Upper part—mottled brownish, reddish, and grayish fine sandy loam; lower part—light brown siltstone
Depth class: Moderately deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 35 percent
Parent material: Clayey residuum weathered from siltstone or claystone

Halso
Surface layer: Brown fine sandy loam
Subsoil: Upper part—yellowish red clay; next part—yellowish red clay that has grayish and brownish mottles; lower part—strong brown clay that has brownish and grayish mottles
Substratum: Upper part—gray and yellowish red clay; lower part—gray clayey shale
Depth class: Deep
Drainage class: Moderately well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 20 percent
Parent material: Clayey marine sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The very deep Brantley soils on side slopes
- The sandy Lucy and loamy Orangeburg soils on summits and knolls
- The very deep Luverne and Williamsville soils on summits and side slopes
- The loamy Springhill soils on side slopes

Use and Management

Major uses: Forestland, pasture, and wildlife habitat

Cropland
Management concerns: Erodibility and restricted use of equipment

Pasture and hayland
Management concerns: Erodibility and restricted use of equipment

Forestland
Management concerns: Erodibility, restricted use of equipment, competition from undesirable plants, and seedling survival

Urban development
Management concerns: Arundel—slope, restricted permeability, shrink-swell potential, low strength, and depth to rock; Halso—slope, restricted permeability, shrink-swell potential, and low strength

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 noncontrasting, 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*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one 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, Luverne sandy loam, 2 to 5 percent slopes, is a phase of the Luverne 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. Bibb-Iuka complex, 0 to 1 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. Mantachie, Kinston, and Iuka soils, 0 to 1 percent slopes, frequently flooded, 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. Pits, borrow, is an example.

The table "Acreage and Proportionate Extent of the Soils" lists the map units in this 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.

ArC—Arundel fine sandy loam, 2 to 8 percent slopes

Setting

Landform: Ridges
Landform position: Summits and shoulder slopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Arundel and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 3 inches—very dark grayish brown fine sandy loam
3 to 6 inches—dark grayish brown fine sandy loam

Subsoil:
6 to 16 inches—red clay
16 to 29 inches—yellowish red sandy clay that has brownish mottles

Substratum:
29 to 35 inches—mottled pale brown, reddish yellow, light brownish gray, and yellowish red fine sandy loam
35 to 60 inches—light brown siltstone

Soil Properties and Qualities

Depth class: Moderately deep
Drainage class: Well drained
Permeability: Very slow

Available water capacity: Moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: High
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: 20 to 40 inches

Minor Components

Dissimilar soils
- Arundel soils that have slopes of more than 8 percent
- The deep Halso soils in saddles
- The very deep Luverne and Williamsville soils on high knolls
- The very deep, sandy Lucy and Troup soils on high knolls
- The very deep, loamy Springhill soils on high knolls
- Scattered areas of siltstone or claystone outcrop

Similar soils
- Scattered areas of clayey soils that have siltstone or claystone bedrock within a depth of 20 inches

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Poorly suited
Management concerns: Erodibility, equipment use, and rooting depth
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility, equipment use, and rooting depth
Management measures and considerations:
- The slope may limit equipment use in the steeper areas when hay is harvested.
- In some areas, large stones on the surface can interfere with the use of equipment. Removing the larger stones and limiting equipment use to the larger open areas minimize wear on the equipment.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Equipment use and seedling survival
Management measures and considerations:
- Restricting logging during wet periods minimizes rutting and the root damage caused by compaction.

- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.
- Special site preparation practices, such as harrowing and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.
- Maintaining litter on the surface increases the water infiltration rate and reduces the seedling mortality rate.

Wildlife habitat

Potential to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor

Management concerns: Equipment use and erodibility

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Poorly suited

Management concerns: Shrink-swell potential and depth to rock

Management measures and considerations:

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- The soft bedrock underlying the soil does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.

Septic tank absorption fields

Suitability: Poorly suited

Management concerns: Depth to rock; restricted permeability

Management measures and considerations:

- This map unit is very limited as a site for septic tank absorption fields.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets

Suitability: Poorly suited

Management concerns: Shrink-swell potential and low strength

Management measures and considerations:

- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- The soft bedrock underlying the soil does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.

Interpretive Groups

Land capability classification: 4e

Prime farmland status: Not prime farmland

Hydric soil status: Arundel—not hydric

ArE—Arundel fine sandy loam, 8 to 35 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes and footslopes
Shape of areas: Irregular
Size of areas: 10 to 200 acres

Composition

Arundel and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 3 inches—very dark grayish brown fine sandy loam
3 to 6 inches—dark grayish brown fine sandy loam

Subsoil:
6 to 16 inches—red clay
16 to 29 inches—yellowish red sandy clay that has brownish mottles

Substratum:
29 to 35 inches—mottled pale brown, reddish yellow, light brownish gray, and yellowish red fine sandy loam
35 to 60 inches—light brown siltstone

Soil Properties and Qualities

Depth class: Moderately deep
Drainage class: Well drained
Permeability: Very slow
Available water capacity: Moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: High
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: 20 to 40 inches

Minor Components

Dissimilar soils
- Arundel soils that have slopes of less than 8 percent or more than 35 percent
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The deep Halso soils in saddles and on footslopes
- The very deep, sandy Lucy and Troup soils on summits of narrow ridges
- The very deep Luverne soils on narrow ridges, shoulder slopes, and footslopes
- The very deep, loamy Springhill soils on shoulder slopes
- Scattered areas of siltstone or claystone outcrop

Similar soils
- Scattered areas of clayey soils that have siltstone or claystone bedrock within a depth of 20 inches

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland

Suitability: Unsuited

Management concerns: This map unit is very limited for crop production because of erodibility, rooting depth, equipment limitations, and the complex topography. A site that has better suited soils should be selected.

Pasture and hayland

Suitability: Poorly suited to pasture; unsuited to hayland

Commonly grown crops: Coastal bermudagrass and bahiagrass

Management concerns: Erodibility and equipment use

Management measures and considerations:

- The slope may limit equipment use in the steeper areas when hay is harvested.
- In some areas, large stones on the surface can interfere with the use of equipment. Removing the larger stones and limiting equipment use to the larger open areas minimize wear on the equipment.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland

Suitability: Suited

Productivity class: Very high for loblolly pine

Management concerns: Erodibility, seedling survival, and equipment use

Management measures and considerations:

- Restricting logging during wet periods minimizes rutting and the root damage caused by compaction.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Maintaining litter on the surface increases the water infiltration rate and reduces the seedling mortality rate.

Wildlife habitat

Potential to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor

Management concerns: Equipment use and erodibility

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited
Management concerns: Slope, shrink-swell potential, and depth to rock
Management measures and considerations:
- Designing structures to conform to the natural slope helps to overcome the slope limitation.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- The soft bedrock underlying the soil does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability, slope, and depth to rock
Management measures and considerations:
- This map unit is very limited as a site for septic tank absorption fields.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Low strength, slope, and shrink-swell potential
Management measures and considerations:
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- The soft bedrock underlying the soil does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Arundel—not hydric

BbA—Bibb-Iuka complex, 0 to 1 percent slopes, frequently flooded

Setting

Landform: Flood plains
Landform position: Bibb—flat and concave slopes in backswamps; Iuka—convex slopes on high and intermediate parts of natural levees
Shape of areas: Long and narrow
Size of areas: 20 to 500 acres

Composition

Bibb and similar soils: 50 percent
Iuka and similar soils: 40 percent
Dissimilar soils: 10 percent

Typical Profiles

Bibb

Surface layer:
0 to 4 inches—dark grayish brown fine sandy loam

Substratum:
4 to 80 inches—gray sandy loam that has brownish, yellowish, and reddish mottles

Iuka

Surface layer:
0 to 5 inches—brown fine sandy loam
5 to 9 inches—yellowish brown loam

Substratum:
9 to 39 inches—light yellowish brown fine sandy loam that has grayish mottles
39 to 49 inches—light yellowish brown sandy clay loam that has brownish and grayish mottles
49 to 62 inches—gray sandy clay loam that has brownish mottles
62 to 80 inches—gray clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Bibb—poorly drained; Iuka—moderately well drained
Permeability: Moderate
Available water capacity: Moderate
Seasonal high water table: Bibb—apparent, at a depth of $^1/_2$ to 1 foot from December through April; Iuka—apparent, at a depth of 1 to 3 feet from December through April
Shrink-swell potential: Low
Flooding: Frequent for brief periods from December through April
Content of organic matter in the surface layer: Medium
Natural fertility: Medium
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils

- The moderately well drained Eunola soils on low knolls
- The very poorly drained Fluvaquents, which are subject to ponding of long duration, in depressions
- The somewhat poorly drained Mantachie soils on low parts of natural levees

Similar soils

- Well drained or moderately well drained, loamy soils that have a higher content of clay in the subsoil and substratum than the Iuka soil; on high or intermediate parts of natural levees
- Scattered areas of poorly drained Kinston soils that have a higher content of clay in the subsoil and substratum than the Bibb soil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland

Suitability: Poorly suited
Management concerns: This map unit is very limited for crop production because of the flooding and wetness. A site that has better suited soils should be selected.

Pasture and hayland

Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Common bermudagrass, bahiagrass, and white clover
Management concerns: Flooding and wetness
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, livestock and hay may be damaged during any time of the year.
- Well maintained drainageways and ditches help to remove excess water.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.

Forestland

Suitability: Suited
Productivity class: Very high for loblolly pine and hardwoods
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- Restricting the use of standard wheeled and tracked equipment to dry periods helps to prevent rutting and compaction.
- Harvesting timber during the summer or fall reduces the risk of damage from the flooding.
- Bedding the Bibb soil prior to planting helps to establish seedlings and increases the seedling survival rate.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

Wildlife habitat

Potential of the Bibb soil to support habitat for: Openland wildlife and forestland wildlife—fair; wetland wildlife—good
Potential of the Iuka soil to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—poor
Management concerns: Equipment use, flooding, and wetness
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Urban development

Suitability: Unsuited
Management concerns: This map unit is very limited as a site for urban development because of the flooding and wetness. A site that has better suited soils should be selected.

Interpretive Groups

Land capability classification: 5w
Prime farmland status: Not prime farmland
Hydric soil status: Bibb—hydric; Iuka—not hydric

BcB—Blanton loamy sand, 0 to 5 percent slopes

Setting

Landform: Ridges and stream terraces
Landform position: Summits, shoulder slopes, and backslopes
Shape of areas: Irregular
Size of areas: 5 to 50 acres

Composition

Blanton and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 6 inches—brown loamy sand

Subsurface layer:
6 to 18 inches—dark yellowish brown loamy sand
18 to 28 inches—yellowish brown loamy sand
28 to 46 inches—brown loamy sand that has splotches of very pale brown sand

Subsoil:
46 to 56 inches—yellowish brown sandy loam that has streaks of uncoated sand
56 to 80 inches—strong brown sandy clay loam that has reddish and brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Low
Seasonal high water table: Perched, at a depth of 4 to 6 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Alaga soils, which do not have a loamy subsoil within a depth of 80 inches
- Blanton soils that have slopes of more than 5 percent
- Scattered areas of Bonifay soils, which have a significant accumulation of plinthite in the subsoil
- Lucy soils, which have loamy subsoil layers within a depth of 20 to 40 inches, on shoulder slopes
- The loamy Springhill soils in saddles

Similar soils
- Scattered areas of Blanton soils that have surface and subsurface layers of loamy fine sand or sand

Land Use

Dominant uses: Pasture and hayland
Other uses: Cropland, forestland, and wildlife habitat

Cropland
Suitability: Poorly suited
Commonly grown crops: Peanuts, truck crops, and watermelons
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase production.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited
Productivity class: High for loblolly pine
Management concerns: Seedling survival
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor
Management concerns: Droughtiness and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Wetness

Management measures and considerations:
- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table improves the performance of the system.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 3s
Prime farmland status: Not prime farmland
Hydric soil status: Blanton—not hydric

BcC—Blanton loamy sand, 5 to 8 percent slopes

Setting

Landform: Ridges
Landform position: Shoulder slopes, backslopes, and footslopes
Shape of areas: Irregular
Size of areas: 5 to 50 acres

Composition

Blanton and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 6 inches—brown loamy sand

Subsurface layer:
6 to 18 inches—dark yellowish brown loamy sand
18 to 28 inches—yellowish brown loamy sand
28 to 46 inches—brown loamy sand that has splotches of very pale brown sand

Subsoil:
46 to 56 inches—yellowish brown sandy loam that has streaks of uncoated sand
56 to 80 inches—strong brown sandy clay loam that has reddish and brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Low
Seasonal high water table: Perched, at a depth of 4 to 6 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Alaga soils, which do not have a loamy subsoil within a depth of 80 inches
- Blanton soils that have slopes of less than 5 percent or more than 8 percent
- Scattered areas of Bonifay soils, which have a significant accumulation of plinthite in the subsoil
- The loamy Cowarts and Springhill soils on the lower parts of slopes
- Lucy soils, which have loamy subsoil layers within a depth of 20 to 40 inches, on shoulder slopes

Similar soils
- Scattered areas of Blanton soils that have surface and subsurface layers of loamy fine sand or sand

Land Use

Dominant uses: Pasture and hayland
Other uses: Cropland, forestland, and wildlife habitat

Cropland
Suitability: Poorly suited
Commonly grown crops: Peanuts, truck crops, and watermelons
Management concerns: Droughtiness, erodibility, and nutrient leaching
Management measures and considerations:
- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase production.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited
Productivity class: High for loblolly pine
Management concerns: Seedling survival
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat

Potential to support habitat for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor

Management concerns: Droughtiness and equipment use

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Well suited

Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields

Suitability: Suited

Management concerns: Wetness

Management measures and considerations:

- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table and installing the distribution lines on the contour improve the performance of the system.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets

Suitability: Well suited

Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 4s

Prime farmland status: Not prime farmland

Hydric soil status: Blanton—not hydric

BfB—Bonifay loamy sand, 0 to 5 percent slopes

Setting

Landform: Ridges and high stream terraces

Landform position: Summits, shoulder slopes, and backslopes

Shape of areas: Irregular

Size of areas: 5 to 50 acres

Composition

Bonifay and similar soils: 90 percent

Dissimilar soils: 10 percent

Typical Profile

Surface layer:

0 to 9 inches—dark yellowish brown loamy sand

Subsurface layer:
9 to 60 inches—light yellowish brown, brownish yellow, and yellowish brown loamy sand

Subsoil:
60 to 73 inches—brownish yellow sandy clay loam that has reddish and brownish mottles and has masses of nodular plinthite
73 to 82 inches—mottled reddish, brownish, and grayish sandy clay loam that has masses of nodular plinthite

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and moderately slow in the subsoil
Available water capacity: Low
Seasonal high water table: Perched, at a depth of 4 to 5 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Alaga soils, which do not have a loamy subsoil within a depth of 80 inches
- Scattered areas of Blanton and Troup soils, which do not have a significant accumulation of plinthite in the subsoil
- Bonifay soils that have slopes of more than 5 percent
- Fuquay soils, which have loamy subsoil layers within a depth of 20 to 40 inches, on shoulder slopes
- The loamy Springhill soils in saddles

Similar soils
- Scattered areas of Bonifay soils that have surface and subsurface layers of loamy fine sand or sand

Land Use

Dominant uses: Pasture and hayland
Other uses: Cropland, forestland, and wildlife habitat

Cropland
Suitability: Poorly suited
Commonly grown crops: Peanuts, truck crops, and watermelons
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase production.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited
Productivity class: High for loblolly pine
Management concerns: Seedling survival
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor
Management concerns: Droughtiness and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Wetness and restricted permeability
Management measures and considerations:
- Increasing the size of the absorption field and using suitable fill material to raise it a sufficient distance above the seasonal high water table improve the performance of the system.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 3s
Prime farmland status: Not prime farmland
Hydric soil status: Bonifay—not hydric

BfC—Bonifay loamy sand, 5 to 8 percent slopes

Setting

Landform: Ridges and high stream terraces
Landform position: Shoulder slopes, backslopes, and footslopes
Shape of areas: Irregular
Size of areas: 5 to 50 acres

Composition

Bonifay and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 9 inches—dark yellowish brown loamy sand

Subsurface layer:
9 to 60 inches—light yellowish brown, brownish yellow, and yellowish brown loamy sand

Subsoil:
60 to 73 inches—brownish yellow sandy clay loam that has reddish and brownish mottles and has masses of nodular plinthite
73 to 82 inches—mottled reddish, brownish, and grayish sandy clay loam that has masses of nodular plinthite

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and moderately slow in the subsoil
Available water capacity: Low
Seasonal high water table: Perched, at a depth of 4 to 5 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Alaga soils, which do not have a loamy subsoil within a depth of 80 inches
- Scattered areas of Blanton and Troup soils, which do not have a significant accumulation of plinthite in the subsoil
- Bonifay soils that have slopes of less than 5 percent or more than 8 percent
- Fuquay soils, which have loamy subsoil layers within a depth of 20 to 40 inches, on shoulder slopes
- The loamy Springhill soils on the lower parts of slopes

Similar soils
- Scattered areas of Bonifay soils that have surface and subsurface layers of loamy fine sand or sand

Land Use

Dominant uses: Pasture and hayland
Other uses: Cropland, forestland, and wildlife habitat

Cropland
Suitability: Poorly suited
Commonly grown crops: Peanuts, truck crops, and watermelons
Management concerns: Droughtiness, erodibility, and nutrient leaching
Management measures and considerations:
- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase production.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited
Productivity class: High for loblolly pine
Management concerns: Seedling survival
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor
Management concerns: Droughtiness and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Wetness and restricted permeability
Management measures and considerations:
- Increasing the size of the absorption field, using suitable fill material to raise it a sufficient distance above the seasonal high water table, and installing the distribution lines on the contour improve the performance of the system.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 4s
Prime farmland status: Not prime farmland
Hydric soil status: Bonifay—not hydric

BoB—Bonneau loamy sand, 0 to 5 percent slopes

Setting

Landform: Ridges and stream terraces
Landform position: Summits, shoulder slopes, and backslopes
Shape of areas: Irregular
Size of areas: 5 to 150 acres

Composition

Bonneau and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 13 inches—brown loamy sand

Subsurface layer:
13 to 21 inches—light yellowish brown loamy fine sand
21 to 28 inches—light yellowish brown loamy fine sand and light olive brown fine sandy loam

Subsoil:
28 to 35 inches—light olive brown fine sandy loam and light yellowish brown loamy fine sand
35 to 45 inches—yellowish brown fine sandy loam that has reddish mottles
45 to 85 inches—yellowish brown and strong brown sandy clay that has reddish, brownish, and grayish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil

Available water capacity: Low
Seasonal high water table: Perched, at a depth of 3½ to 5 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Blanton soils, which have sandy surface and subsurface layers with a combined thickness of 40 to 80 inches
- Bonneau soils that have slopes of more than 5 percent
- The moderately well drained Compass and Eunola soils, which do not have thick, sandy surface and subsurface layers, on shoulder slopes
- Scattered areas of Fuquay soils, which have a significant accumulation of plinthite in the subsoil
- The somewhat poorly drained Ocilla soils in swales

Similar soils
- Scattered areas of Bonneau soils that have a surface layer of loamy fine sand or sand
- Scattered areas of soils that are similar to the Bonneau soil but have a seasonal high water table within a depth of 2½ to 3½ feet from December through March

Land Use

Dominant uses: Cropland, pasture, and hayland
Other uses: Forestland and wildlife habitat

Cropland
Suitability: Suited
Commonly grown crops: Peanuts, cotton, corn, truck crops, and watermelons
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase production.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: High for loblolly pine

Management concerns: Seedling survival
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—poor
Management concerns: Droughtiness and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Wetness
Management measures and considerations:
- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table improves the performance of the system.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 2s
Prime farmland status: Not prime farmland
Hydric soil status: Bonneau—not hydric

BrC—Brantley sandy loam, 2 to 8 percent slopes

Setting

Landform: Ridges
Landform position: Summits, saddles, and shoulder slopes
Shape of areas: Irregular
Size of areas: 5 to 150 acres

Composition

Brantley and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 3 inches—dark yellowish brown sandy loam

Subsurface layer:
3 to 10 inches—yellowish brown sandy loam

Subsoil:
10 to 25 inches—red sandy clay
25 to 38 inches—red sandy clay loam
38 to 48 inches—yellowish red sandy clay loam

Substratum:
48 to 58 inches—stratified strong brown sandy loam and yellowish red loamy sand
58 to 80 inches—stratified yellowish brown sandy loam and loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Brantley soils that have slopes of more than 8 percent
- The deep, moderately well drained Halso soils in saddles
- The sandy Lucy and Troup soils on high knolls
- The loamy Smithdale soils on knolls

Similar soils
- Scattered areas of Brantley soils that have a surface layer of loamy sand

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture, hayland, cropland, and homesites

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn, cotton, soybeans, and truck crops
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility

Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Equipment use and competition from undesirable plants
Management measures and considerations:
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the subsoil.
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed producing plants for quail and turkey (fig. 2).
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Suited
Management concerns: Shrink-swell potential
Management measures and considerations:
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability
Management measures and considerations:
- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Low strength; shrink-swell potential

Figure 2.—A wildlife food plot in an area of Brantley sandy loam, 2 to 8 percent slopes. Cool-season grasses, such as wheat, rye, oats, and ryegrass, provide supplemental food for deer, turkey, and small-game species during the winter and spring.

Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength and the moderate shrink-swell potential of the natural soil material.

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Brantley—not hydric

BrE—Brantley sandy loam, 15 to 30 percent slopes

Setting

Landform: Hillslopes
Landform position: Convex side slopes, backslopes, and footslopes
Shape of areas: Irregular
Size of areas: 40 to 300 acres

Composition

Brantley and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 3 inches—dark yellowish brown sandy loam

Subsurface layer:
3 to 10 inches—yellowish brown sandy loam

Subsoil:
10 to 25 inches—red sandy clay
25 to 38 inches—red sandy clay loam
38 to 48 inches—yellowish red sandy clay loam

Substratum:
48 to 58 inches—stratified strong brown sandy loam and yellowish red loamy sand
58 to 80 inches—stratified yellowish brown sandy loam and loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained Bibb and moderately well drained Marietta soils on narrow flood plains
- Brantley soils that have slopes of less than 15 percent or more than 30 percent
- The deep, moderately well drained Halso soils on the lower parts of slopes
- Hannon soils, which have accumulations of calcium carbonate within a depth of 30 inches, on benches
- The sandy Lucy and Troup and loamy Smithdale soils on summits of narrow ridges
- Scattered areas of limestone outcrop

Similar soils
- Scattered areas of Brantley soils that have a surface layer of loamy sand
- Scattered areas of well drained, clayey soils that have an alkaline substratum

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Unsuited
Management concerns: This map unit is very limited for crop production because of the slope. A site that has better suited soils should be selected.

Pasture and hayland
Suitability: Poorly suited to pasture; unsuited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and equipment use
Management measures and considerations:
- The slope may limit equipment use in the steeper areas.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited

Productivity class: Very high for loblolly pine
Management concerns: Erodibility, equipment use, and competition from undesirable plants
Management measures and considerations:
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited
Management concerns: Slope and shrink-swell potential
Management measures and considerations:
- Designing structures to conform to the natural slope helps to overcome the slope limitation.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability and slope
Management measures and considerations:
- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited

Management concerns: Slope, low strength, and shrink-swell potential
Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a moderate shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Brantley—not hydric

BrF—Brantley sandy loam, 30 to 50 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes and footslopes
Shape of areas: Irregular
Size of areas: 10 to 800 acres

Composition

Brantley and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 3 inches—dark yellowish brown sandy loam

Subsurface layer:
3 to 10 inches—yellowish brown sandy loam

Subsoil:
10 to 25 inches—red sandy clay
25 to 38 inches—red sandy clay loam
38 to 48 inches—yellowish red sandy clay loam

Substratum:
48 to 58 inches—stratified strong brown sandy loam and yellowish red loamy sand
58 to 80 inches—stratified yellowish brown sandy loam and loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components:

Dissimilar soils
- The poorly drained Bibb and moderately well drained Marietta soils on narrow flood plains
- Brantley soils that have slopes of less than 30 percent or more than 50 percent
- The deep, moderately well drained Halso soils on the lower parts of slopes
- Hannon soils, which have accumulations of calcium carbonate within a depth of 30 inches, on benches
- The sandy Lucy and Troup and loamy Smithdale soils on summits of narrow ridges
- Scattered areas of the moderately deep, alkaline Sumter soils
- Scattered areas of limestone outcrop

Similar soils
- Scattered areas of Brantley soils that have a surface layer of loamy sand
- Scattered areas of well drained, clayey soils that have an alkaline substratum

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Unsuited
Management concerns: This map unit is very limited for crop production because of the very steep slope. A site that has better suited soils should be selected.

Pasture and hayland
Suitability: Unsuited
Management concerns: This map unit is very limited for use as pasture and hayland because of the very steep slope. A site that has better suited soils should be selected.

Forestland
Suitability: Poorly suited
Productivity class: High for loblolly pine
Management concerns: Erodibility, equipment use, and competition from undesirable plants
Management measures and considerations:
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the subsoil.
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Using cable logging methods helps to minimize construction of roads and trails, especially in areas where slope exceeds about 50 percent.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

Wildlife habitat

Potential to support habitat for: Openland wildlife—poor; forestland wildlife—good; wetland wildlife—very poor

Management concerns: Erodibility and steepness of slope

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Urban development

Suitability: Unsuited

Management concerns: This map unit is very limited as a site for urban development because of the very steep slope. A site that has better suited soils should be selected.

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Brantley—not hydric

CaA—Casemore loam, 0 to 1 percent slopes, rarely flooded

Setting

Landform: Low stream terraces
Landform position: Flat and slightly convex slopes
Shape of areas: Oblong
Size of areas: 10 to 75 acres

Composition

Casemore and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 3 inches—brown loam

Subsurface layer:
3 to 7 inches—light olive brown loam

Subsoil:
7 to 30 inches—light olive brown and light yellowish brown sandy clay loam that has brownish and grayish mottles
30 to 80 inches—light brownish gray, gray, and light gray sandy clay loam that has reddish and brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Moderate

Available water capacity: High
Seasonal high water table: Apparent, at a depth of 1 to 2 feet from December through April
Shrink-swell potential: Low
Flooding: Rare
Content of organic matter in the surface layer: Low
Natural fertility: Medium
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained Bibb and moderately well drained Iuka and Marietta soils on narrow flood plains
- The well drained Bonneau soils, which have thick, sandy surface and subsurface layers, on knolls or rises
- Casemore soils that have slopes of more than 1 percent
- The moderately well drained Eunola soils on knolls or rises

Similar soils
- Scattered areas of Casemore soils that have a surface layer of fine sandy loam

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Cropland and pasture

Cropland
Suitability: Suited
Commonly grown crops: Corn, cotton, soybeans, and grain sorghum
Management concerns: Wetness
Management measures and considerations:
- Installing and maintaining a drainage system that includes open ditches and land shaping increases productivity.
- Tilling when the soil has the proper moisture content helps to prevent clodding and crusting.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Bahiagrass, dallisgrass, and tall fescue
Management concerns: Wetness
Management measures and considerations:
- Installing and maintaining a drainage system that includes open ditches and land shaping increases productivity.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited
Productivity class: Very high for loblolly pine and hardwoods
Management concerns: Equipment use and competition from undesirable plants
Management measures and considerations:
- Restricting the use of standard wheeled and tracked equipment to dry periods helps to prevent rutting and compaction.

- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—poor
Management concerns: Wetness
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited
Management concerns: Flooding and wetness
Management measures and considerations:
- Constructing dwellings on elevated, well-compacted fill material helps to minimize the damage from the flooding.
- Installing a subsurface drainage system helps to lower the seasonal high water table.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Wetness, restricted permeability, and flooding
Management measures and considerations:
- Increasing the size of the absorption field and using suitable fill material to raise it a sufficient distance above the seasonal high water table improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Wetness, flooding, and low strength
Management measures and considerations:
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness.
- Well-compacted fill material can be used as a road base to elevate roads above the flooding.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland
Hydric soil status: Casemore—not hydric

CmB—Compass loamy sand, 1 to 3 percent slopes

Setting

Landform: Ridges and high stream terraces
Landform position: Summits
Shape of areas: Irregular
Size of areas: 15 to 150 acres

Composition

Compass and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 10 inches—brown loamy sand

Subsoil:
10 to 15 inches—yellowish brown sandy loam
15 to 37 inches—brownish yellow sandy loam that has reddish mottles
37 to 57 inches—brownish yellow sandy loam and sandy clay loam having masses of nodular plinthite and grayish and reddish mottles
57 to 80 inches—mottled reddish, brownish, and grayish sandy clay loam that has masses of nodular plinthite

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Moderately slow
Available water capacity: Moderate
Seasonal high water table: Perched, at a depth of $2^1/_2$ to $3^1/_2$ feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Compass soils that have slopes of more than 3 percent
- Scattered areas of Dothan soils, which have a higher content of clay in the upper part of the subsoil than the Compass soils
- Fuquay soils, which have thick, sandy surface and subsurface layers, on knolls
- The well drained Orangeburg soils, which have reddish colors in the subsoil and do not have a significant accumulation of plinthite, on knolls and shoulder slopes
- The poorly drained Rains soils in shallow depressions and swales

Similar soils
- Scattered areas of Compass soils that have a surface layer of sandy loam

Land Use

Dominant uses: Cropland, pasture, and hayland
Other uses: Forestland and homesites

Cropland
Suitability: Well suited

Commonly grown crops: Corn, soybeans, peanuts, and cotton
Management concerns: Erodibility
Management measures and considerations:
• Terraces and diversions, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
• Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility
Management measures and considerations:
• Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
• Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
• Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Competition from undesirable plants
Management measures and considerations:
• Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
• Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
• Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
• Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Wetness and restricted permeability
Management measures and considerations:
• This map unit is difficult to manage for septic tank absorption fields because the dominant soil has a seasonal high water table at a depth of $2^1/_2$ to $3^1/_2$ feet.
• Increasing the size of the absorption field and using suitable fill material to raise it a

sufficient distance above the seasonal high water table improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Compass—not hydric

CoC—Cowarts sandy loam, 5 to 8 percent slopes

Setting

Landform: Ridges
Landform position: Backslopes and shoulder slopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Cowarts and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 4 inches—dark grayish brown sandy loam

Subsurface layer:
4 to 10 inches—yellowish brown sandy loam

Subsoil:
10 to 28 inches—yellowish brown sandy clay loam
28 to 36 inches—yellowish brown sandy clay loam that has reddish and brownish mottles
36 to 44 inches—brownish yellow sandy loam that has grayish mottles

Substratum:
44 to 80 inches—yellowish brown and yellowish red sandy loam that has reddish and grayish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Slow
Available water capacity: Moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Cowarts soils that have slopes of more than 8 percent
- Dothan soils, which have a significant accumulation of plinthite in the subsoil, on nose slopes
- The sandy Lucy soils on shoulder slopes
- The clayey Nankin soils in positions similar to those of the Cowarts soil
- Springhill soils, which have a reddish subsoil, on shoulder slopes

Similar soils
- Scattered areas of Cowarts soils that have a surface layer of gravelly sandy loam or gravelly loamy sand
- Scattered areas of loamy, moderately well drained soils

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture, hayland, and homesites

Cropland
Suitability: Suited
Commonly grown crops: Corn, cotton, and truck crops
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- The complexity of the slope limits the use of terraces in narrow areas.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: High for loblolly pine and longleaf pine
Management concerns: No significant limitations affect management of forestland.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small

tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability
Management measures and considerations:
- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Prime farmland
Hydric soil status: Cowarts—not hydric

CtE—Cowarts-Troup complex, 8 to 20 percent slopes

Setting

Landform: Hillslopes
Landform position: Cowarts—backslopes and nose slopes; Troup—shoulder slopes and footslopes
Shape of areas: Irregular
Size of areas: 10 to 300 acres

Composition

Cowarts and similar soils: 50 percent
Troup and similar soils: 40 percent
Dissimilar soils: 10 percent

Typical Profiles

Cowarts
Surface layer:
0 to 4 inches—dark grayish brown sandy loam

Subsurface layer:
4 to 10 inches—yellowish brown sandy loam

Subsoil:
10 to 28 inches—yellowish brown sandy clay loam
28 to 36 inches—yellowish brown sandy clay loam that has reddish and brownish mottles
36 to 44 inches—brownish yellow sandy loam that has grayish mottles

Substratum:
44 to 80 inches—yellowish brown and yellowish red sandy loam that has reddish and grayish mottles

Troup
Surface layer:
0 to 3 inches—brown loamy sand

Subsurface layer:
3 to 12 inches—yellowish brown loamy sand
12 to 50 inches—strong brown loamy sand

Subsoil:
50 to 60 inches—yellowish red sandy clay loam
60 to 80 inches—red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Cowarts—well drained; Troup—somewhat excessively drained
Permeability: Cowarts—slow; Troup—rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Cowarts—moderate; Troup—low
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained Bibb soils and moderately well drained Iuka soils on narrow flood plains
- The sandy Blanton soils, which have a seasonal high water table at a depth of 4 to 6 feet, on footslopes
- Cowarts and Troup soils that have slopes of less than 8 percent or more than 20 percent
- The sandy Lucy soils on shoulder slopes
- The clayey Nankin soils in positions similar to those of the Cowarts soil
- The loamy Springhill soils, which have a reddish subsoil, on shoulder slopes

Similar soils
- Scattered areas of Cowarts soils that have a surface layer of gravelly sandy loam or gravelly loamy sand
- Scattered areas of loamy, moderately well drained soils

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Poorly suited
Management concerns: Erodibility, equipment use, droughtiness, and nutrient leaching
Management measures and considerations:
- This map unit is difficult to manage for crop production because the slope limits the use of equipment.

- Contour tillage, no-till planting, crop residue management, stripcropping, and a rotation that includes soil conserving crops reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility, equipment use, droughtiness, and nutrient leaching
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.

Forestland
Suitability: Suited
Productivity class: High for loblolly pine and longleaf pine
Management concerns: Cowarts—erodibility and competition from undesirable plants; Troup—equipment use and seedling survival
Management measures and considerations:
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Using tracked or low-pressure ground equipment improves trafficability and helps to prevent rutting and the damage caused to tree roots by compaction.
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate in areas of the Troup soils.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility, equipment use, and droughtiness
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Suited

Management concerns: Slope
Management measures and considerations:
- Structures can be designed to conform to the natural slope or can be built in the less sloping areas.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.

Septic tank absorption fields
Suitability: Cowarts—poorly suited; Troup—suited
Management concerns: Cowarts—restricted permeability and slope; Troup—slope
Management measures and considerations:
- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Seeps and springs may be encountered in some areas during excavation of trenches. These areas should not be selected as a site for a septic tank absorption field.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Slope
Management measures and considerations:
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soils and reduces the hazard of erosion.

Interpretive Groups

Land capability classification: Cowarts—6e; Troup—6s
Prime farmland status: Not prime farmland
Hydric soil status: Cowarts and Troup—not hydric

DoA—Dothan sandy loam, 0 to 2 percent slopes

Setting

Landform: Ridges and high stream terraces
Landform position: Summits
Shape of areas: Irregular
Size of areas: 15 to 150 acres

Composition

Dothan and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 9 inches—brown sandy loam

Subsoil:
9 to 20 inches—brownish yellow sandy clay loam
20 to 35 inches—brownish yellow sandy clay loam that has reddish mottles
35 to 48 inches—brownish yellow sandy clay loam that has brownish and reddish mottles and has masses of nodular plinthite
48 to 80 inches—strong brown sandy clay loam that has reddish and grayish mottles and has masses of nodular plinthite

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: Moderate
Depth to seasonal high water table: Perched, at a depth of 3 to 5 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Compass soils, which have a lower content of clay in the upper part of the subsoil than the Dothan soil
- Dothan soils that have slopes of more than 2 percent
- Fuquay soils, which have thick, sandy surface and subsurface layers, on knolls
- Orangeburg soils, which have a reddish subsoil and do not have a significant accumulation of plinthite, on knolls

Similar soils
- Scattered areas of Dothan soils that have a surface layer of loamy sand
- Scattered areas of moderately well drained Dothan soils

Land Use

Dominant uses: Cropland, pasture, and hayland
Other uses: Forestland and homesites

Cropland
Suitability: Well suited
Commonly grown crops: Corn (fig. 3), cotton, peanuts, and soybeans

Figure 3.—An area of Dothan sandy loam, 0 to 2 percent slopes, which is classified as prime farmland. This soil is well suited to cultivated crops, such as corn, peanuts, cotton, and soybeans.

Management concerns: No significant limitations affect management of cropland.
Management measures and considerations:
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Bahiagrass (fig. 4) and coastal bermudagrass
Management concerns: No significant limitations affect management of pasture and hayland.
Management measures and considerations:
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Competition from undesirable plants
Management measures and considerations:
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—poor
Management concerns: No significant limitations affect management for wildlife habitat.
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of

Figure 4.—Bahiagrass hay in an area of Dothan sandy loam, 0 to 2 percent slopes. This well drained, loamy soil is well suited to hay, pasture, and cultivated crops.

vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Wetness and restricted permeability
Management measures and considerations:
- This map unit is difficult to manage for septic tank absorption fields because the dominant soil has a seasonal high water table at a depth of 3 to 5 feet.
- Increasing the size of the absorption field and using suitable fill material to raise it a sufficient distance above the seasonal high water table improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Dothan—not hydric

DoB—Dothan sandy loam, 2 to 5 percent slopes

Setting

Landform: Ridges and high stream terraces
Landform position: Shoulder slopes and backslopes
Shape of areas: Irregular
Size of areas: 5 to 250 acres

Composition

Dothan and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 9 inches—brown sandy loam

Subsoil:
9 to 20 inches—brownish yellow sandy clay loam

20 to 35 inches—brownish yellow sandy clay loam that has reddish mottles
35 to 48 inches—brownish yellow sandy clay loam that has brownish and reddish mottles and has masses of nodular plinthite
48 to 80 inches—strong brown sandy clay loam that has reddish and grayish mottles and has masses of nodular plinthite

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: Moderate
Depth to seasonal high water table: Perched, at a depth of 3 to 5 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Compass soils, which have a lower content of clay in the upper part of the subsoil than the Dothan soil
- Dothan soils that have slopes of less than 2 percent or more than 5 percent
- The clayey Faceville soils on the lower parts of slopes
- Fuquay soils, which have thick, sandy surface and subsurface layers, on knolls and shoulder slopes
- Orangeburg soils, which have a reddish subsoil and do not have a significant accumulation of plinthite, on knolls and shoulder slopes

Similar soils
- Scattered areas of Dothan soils that have a surface layer of loamy sand
- Scattered areas of moderately well drained Dothan soils

Land Use

Dominant uses: Pasture, hayland, and cropland
Other uses: Homesites, forestland, and wildlife habitat

Cropland
Suitability: Well suited
Commonly grown crops: Corn, cotton, peanuts, and soybeans
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Competition from undesirable plants
Management measures and considerations:
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Restricted permeability and wetness
Management measures and considerations:
- This map unit is difficult to manage for septic tank absorption fields because the dominant soil has a seasonal high water table at a depth of 3 to 5 feet.
- Increasing the size of the absorption field and using suitable fill material to raise it a sufficient distance above the seasonal high water table improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Dothan—not hydric

DoC—Dothan sandy loam, 5 to 8 percent slopes

Setting

Landform: Ridges and high stream terraces
Landform position: Backslopes and shoulder slopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Dothan and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 9 inches—brown sandy loam

Subsoil:
9 to 20 inches—brownish yellow sandy clay loam
20 to 35 inches—brownish yellow sandy clay loam that has reddish mottles
35 to 48 inches—brownish yellow sandy clay loam that has brownish and reddish mottles and has masses of nodular plinthite
48 to 80 inches—strong brown sandy clay loam that has reddish and grayish mottles and has masses of nodular plinthite

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: Moderate
Depth to seasonal high water table: Perched, at a depth of 3 to 5 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils

- Scattered areas of Compass soils, which have a lower content of clay in the upper part of the subsoil than the Dothan soil
- Dothan soils that have slopes of less than 5 percent or more than 8 percent
- The clayey Faceville and Nankin soils on the lower parts of slopes
- Fuquay soils, which have thick, sandy surface and subsurface layers, on shoulder slopes
- Orangeburg and Springhill soils, which have a reddish subsoil and do not have a significant accumulation of plinthite, on shoulder slopes

Similar soils

- Scattered areas of Dothan soils that have a surface layer of loamy sand
- Scattered areas of moderately well drained Dothan soils

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture, hayland, and homesites

Cropland
Suitability: Suited
Commonly grown crops: Corn, cotton, peanuts, and truck crops
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- The complexity of the slope limits the use of terraces in narrow areas.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Competition from undesirable plants
Management measures and considerations:
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability and wetness
Management measures and considerations:
- This map unit is difficult to manage for septic tank absorption fields because the dominant soil has a seasonal high water table at a depth of 3 to 5 feet.
- Increasing the size of the absorption field, using suitable fill material to raise it a

sufficient distance above the seasonal high water table, and installing the distribution lines on the contour improve the performance of the system.

- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Prime farmland
Hydric soil status: Dothan—not hydric

EuA—Eunola sandy loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform: Low stream terraces
Landform position: Flat and convex slopes
Shape of areas: Oblong
Size of areas: 10 to 200 acres

Composition

Eunola and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 3 inches—dark brown sandy loam
3 to 6 inches—brown sandy loam

Subsurface layer:
6 to 10 inches—light yellowish brown fine sandy loam

Subsoil:
10 to 16 inches—light olive brown sandy clay loam
16 to 23 inches—light olive brown sandy clay loam that has reddish and grayish mottles
23 to 32 inches—yellowish brown sandy clay loam that has grayish and reddish mottles
32 to 46 inches—brownish yellow sandy clay loam that has reddish and grayish mottles
46 to 53 inches—mottled brownish yellow, strong brown, and light brownish gray fine sandy loam

Substratum:
53 to 64 inches—mottled yellowish brown, light brownish gray, and strong brown fine sandy loam
64 to 80 inches—mottled yellowish brown, gray, and strong brown sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Moderate
Available water capacity: High

Seasonal high water table: Apparent, at a depth of $1^1/_2$ to $2^1/_2$ feet from December through April
Shrink-swell potential: Low
Flooding: Rare
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained, clayey Bethera and loamy Rains soils in swales
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy, well drained Bonneau soils on knolls
- The sandy, somewhat poorly drained Ocilla soils on slight rises

Similar soils
- Scattered areas of Eunola soils that have a surface layer of loam
- Scattered areas of moderately well drained, loamy soils that have a significant increase in clay content with depth

Land Use

Dominant uses: Forestland, wildlife habitat, and pasture
Other uses: Cropland and hayland

Cropland
Suitability: Well suited
Commonly grown crops: Corn, soybeans, grain sorghum, and cotton
Management concerns: Wetness
Management measures and considerations:
- Using well maintained open ditches to remove excess water improves productivity.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass, bahiagrass, and white clover
Management concerns: Wetness
Management measures and considerations:
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine and hardwoods
Management concerns: Equipment use and competition from undesirable plants
Management measures and considerations:
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—poor

Management concerns: Equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited
Management concerns: Flooding and wetness
Management measures and considerations:
- Constructing dwellings on elevated, well-compacted fill material helps to minimize damage from the flooding.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Wetness, restricted permeability, and flooding
Management measures and considerations:
- This map unit is difficult to manage for septic tank absorption fields because the dominant soil has a seasonal high water table at a depth of $1^1/_2$ to $2^1/_2$ feet.
- Increasing the size of the absorption field and using suitable fill material to raise it a sufficient distance above the seasonal high water table improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Low strength, wetness, and flooding
Management measures and considerations:
- Well-compacted fill material can be used as a road base to elevate roads above the flooding.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.

Interpretive Groups

Land capability classification: 2w
Prime farmland status: Prime farmland
Hydric soil status: Eunola—not hydric

FaB—Faceville fine sandy loam, 2 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Summits, shoulder slopes, and backslopes
Shape of areas: Irregular
Size of areas: 5 to 250 acres

Composition

Faceville and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 3 inches—brown fine sandy loam
3 to 8 inches—yellowish brown fine sandy loam

Subsoil:
8 to 20 inches—yellowish red sandy clay
20 to 32 inches—red sandy clay
32 to 60 inches—red sandy clay that has brownish mottles
60 to 80 inches—red sandy clay that has reddish and brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Faceville soils that have slopes of less than 2 percent or more than 5 percent
- Nankin soils, which have a significant decrease in clay content in the lower part of the subsoil, on the lower parts of slopes
- The loamy Orangeburg soils on knolls
- Scattered areas of the loamy Red Bay soils, which have a dark red or dark reddish brown subsoil

Similar soils
- Scattered areas of Faceville soils that have a surface layer of sandy clay loam
- Scattered areas of Greenville soils, which have a dark red or dark reddish brown subsoil

Land Use

Dominant uses: Cropland, pasture, and hayland
Other uses: Homesites, forestland, and wildlife habitat

Cropland
Suitability: Suited
Commonly grown crops: Corn, cotton, soybeans, and peanuts
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Competition from undesirable plants
Management measures and considerations:
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Restricted permeability
Management measures and considerations:
- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Faceville—not hydric

FIA—Fluvaquents, ponded

Setting

Landform: Flood plains
Landform position: Oxbows, sloughs, swales, and other depressional areas
Shape of areas: Round or oblong
Size of areas: 10 to 100 acres

Composition

Fluvaquents and similar soils: 95 percent
Dissimilar soils: 5 percent

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Very poorly drained
Permeability: Variable
Available water capacity: Variable
Seasonal high water table: Apparent, from 2 feet above the surface to a depth of 1 foot from December through July
Shrink-swell potential: Variable
Flooding: Frequent for brief periods, mainly from December through April
Content of organic matter in the surface layer: High
Natural fertility: Medium
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The moderately well drained Eunola soils on slight rises and near the edges of mapped areas
- The moderately well drained Iuka and somewhat poorly drained Mantachie soils in the slightly higher, more convex positions

Similar soils
- Scattered areas of poorly drained Bibb and Kinston soils, which are not subject to ponding of long duration

Land Use

Dominant uses: Forestland and wildlife habitat

Cropland
Suitability: Unsuited
Management concerns: This map unit is very limited for crop production because of flooding, ponding, and wetness. A site that has better suited soils should be selected.

Pasture and hayland
Suitability: Unsuited
Management concerns: This map unit is very limited for use as pasture and hayland because of flooding, ponding, and wetness. A site that has better suited soils should be selected.

Forestland
Suitability: Poorly suited
Productivity class: High for water tupelo and baldcypress
Management concerns: Equipment use and seedling survival

Management measures and considerations:
- The best method for reforesting areas of this soil is by managing for the natural regeneration of hardwoods.
- Using low-pressure ground equipment helps to prevent rutting and the damage caused to tree roots by compaction.
- Maintaining drainageways and planting trees that are tolerant of wetness increase the seedling survival rate.

Wildlife habitat

Potential to support habitat for: Openland wildlife and forestland wildlife—poor; wetland wildlife—good (fig. 5)

Management concerns: Equipment use, ponding, flooding, and wetness

Management measures and considerations:
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Urban development

Suitability: Unsuited

Management concerns: This map unit is very limited as a site for urban development because of flooding, ponding, and wetness. A site that has better suited soils should be selected.

Interpretive Groups

Land capability classification: 7w

Prime farmland status: Not prime farmland

Hydric soil status: Fluvaquents—hydric

Figure 5.—An area of Fluvaquents, ponded. Areas of this map unit are ponded for several months in most years and provide habitat for wetland wildlife species, such as beaver, otter, mink, wood duck, and many species of reptiles and amphibians.

FqB—Fuquay loamy fine sand, 0 to 5 percent slopes

Setting

Landform: Ridges and high stream terraces
Landform position: Summits, shoulder slopes, and backslopes
Shape of areas: Irregular
Size of areas: 10 to 150 acres

Composition

Fuquay and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 4 inches—grayish brown loamy fine sand

Subsurface layer:
4 to 30 inches—yellowish brown and brownish yellow loamy fine sand

Subsoil:
30 to 40 inches—brownish yellow sandy loam
40 to 53 inches—yellowish brown sandy clay loam
53 to 68 inches—strong brown sandy clay loam that has reddish mottles and has masses of nodular plinthite
68 to 80 inches—mottled yellowish brown, strong brown, light brownish gray, and red sandy clay loam that has masses of nodular plinthite

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and slow in the subsoil
Available water capacity: Low
Seasonal high water table: Perched, at a depth of 4 to 6 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Bonifay soils, which have sandy surface and subsurface layers with a combined thickness of 40 to 80 inches
- The moderately well drained Compass soils, which do not have thick, sandy surface and subsurface layers, on shoulder slopes
- Dothan and Orangeburg soils, which do not have thick, sandy surface and subsurface layers, on knolls and shoulder slopes
- Fuquay soils that have slopes of more than 5 percent

Similar soils
- Scattered areas of Fuquay soils that have surface and subsurface layers of loamy sand or sand

Land Use

Dominant uses: Cropland, pasture, and hayland
Other uses: Forestland and wildlife habitat

Cropland

Suitability: Suited

Commonly grown crops: Corn, peanuts, cotton, and soybeans

Management concerns: Droughtiness and nutrient leaching

Management measures and considerations:

- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland

Suitability: Well suited

Commonly grown crops: Coastal bermudagrass and bahiagrass

Management concerns: Droughtiness and nutrient leaching

Management measures and considerations:

- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase production.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland

Suitability: Well suited

Productivity class: High for loblolly pine and longleaf pine

Management concerns: Seedling survival

Management measures and considerations:

- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat

Potential to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor

Management concerns: Droughtiness and equipment use

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Well suited

Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields

Suitability: Suited

Management concerns: Wetness and restricted permeability

Management measures and considerations:

- This map unit is difficult to manage for septic tank absorption fields because the dominant soil has a seasonal high water table at a depth of 4 to 6 feet.
- Increasing the size of the absorption field and using suitable fill material to raise it a sufficient distance above the seasonal high water table improve the performance of the system.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 2s
Prime farmland status: Not prime farmland
Hydric soil status: Fuquay—not hydric

FqC—Fuquay loamy fine sand, 5 to 8 percent slopes

Setting

Landform: Ridges and high stream terraces
Landform position: Shoulder slopes and backslopes
Shape of areas: Irregular
Size of areas: 5 to 150 acres

Composition

Fuquay and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 4 inches—grayish brown loamy fine sand

Subsurface layer:
4 to 30 inches—yellowish brown and brownish yellow loamy fine sand

Subsoil:
30 to 40 inches—brownish yellow sandy loam
40 to 53 inches—yellowish brown sandy clay loam
53 to 68 inches—strong brown sandy clay loam that has reddish mottles and has masses of nodular plinthite
68 to 80 inches—mottled yellowish brown, strong brown, light brownish gray, and red sandy clay loam that has masses of nodular plinthite

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and slow in the subsoil
Available water capacity: Low
Seasonal high water table: Perched, at a depth of 4 to 6 feet from December through March
Shrink-swell potential: Low
Flooding: None

Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Bonifay soils, which have sandy surface and subsurface layers with a combined thickness of 40 to 80 inches
- The moderately well drained Compass soils, which do not have thick, sandy surface and subsurface layers, on shoulder slopes
- Dothan and Orangeburg soils, which do not have thick, sandy surface and subsurface layers, on shoulder slopes
- Fuquay soils that have slopes of less than 5 percent or more than 8 percent

Similar soils
- Scattered areas of Fuquay soils that have surface and subsurface layers of loamy sand or sand

Land Use

Dominant uses: Pasture and hayland
Other uses: Cropland, forestland, and wildlife habitat

Cropland
Suitability: Suited
Commonly grown crops: Corn, peanuts, cotton, and soybeans
Management concerns: Erodibility, droughtiness, and nutrient leaching
Management measures and considerations:
- Using a resource management system that includes stripcropping, contour tillage, conservation tillage, and crop residue management reduces the hazard of erosion, helps to control surface runoff, and maximizes infiltration of rainfall.
- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility, droughtiness, and nutrient leaching
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase production.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: High for loblolly pine and longleaf pine
Management concerns: Seedling survival

Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor
Management concerns: Droughtiness and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Wetness and restricted permeability
Management measures and considerations:
- This map unit is difficult to manage for septic tank absorption fields because the dominant soil has a seasonal high water table at a depth of 4 to 6 feet.
- Increasing the size of the absorption field, using suitable fill material to raise it a sufficient distance above the seasonal high water table, and installing the distribution lines on the contour improve the performance of the system.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 3s
Prime farmland status: Not prime farmland
Hydric soil status: Fuquay—not hydric

GrA—Greenville sandy loam, 0 to 2 percent slopes

Setting

Landform: Ridges
Landform position: Summits
Shape of areas: Irregular
Size of areas: 5 to 150 acres

Composition

Greenville and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 8 inches—reddish brown sandy loam

Subsoil:
8 to 40 inches—dark reddish brown sandy clay
40 to 80 inches—dark red sandy clay

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Greenville soils that have slopes of more than 2 percent
- The loamy Orangeburg soils, which do not have a dark red or dark reddish brown subsoil, on knolls
- Scattered areas of the loamy Red Bay soils

Similar soils
- Scattered areas of Faceville soils, which do not have a dark red or dark reddish brown subsoil
- Scattered areas of Greenville soils that have a surface layer of sandy clay loam
- Scattered areas of soils that are similar to the Greenville soil but have a significant decrease in clay content in the lower part of the subsoil

Land Use

Dominant uses: Cropland, pasture, and hayland
Other uses: Homesites, forestland, and wildlife habitat

Cropland
Suitability: Well suited
Commonly grown crops: Corn, cotton, soybeans, and peanuts
Management concerns: No significant limitations affect management of cropland.
Management measures and considerations:
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: No significant limitations affect management of pasture and hayland.

Management measures and considerations:
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Competition from undesirable plants
Management measures and considerations:
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: No significant limitations affect management for wildlife habitat.
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Restricted permeability
Management measures and considerations:
- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Greenville—not hydric

GrB—Greenville sandy loam, 2 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Shoulder slopes and backslopes

Shape of areas: Irregular
Size of areas: 5 to 150 acres

Composition

Greenville and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 8 inches—reddish brown sandy loam

Subsoil:
8 to 40 inches—dark reddish brown sandy clay
40 to 80 inches—dark red sandy clay

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Greenville soils that have slopes of less than 2 percent or more than 5 percent
- The loamy Orangeburg soils, which do not have a dark red or dark reddish brown subsoil, on knolls and shoulder slopes
- Scattered areas of the loamy Red Bay soils

Similar soils
- Scattered areas of Faceville soils, which do not have a dark red or dark reddish brown subsoil
- Scattered areas of Greenville soils that have a surface layer of sandy clay loam
- Scattered areas of soils that are similar to the Greenville soil but have a significant decrease in clay content in the lower part of the subsoil

Land Use

Dominant uses: Cropland, pasture, and hayland
Other uses: Homesites, forestland, and wildlife habitat

Cropland
Suitability: Suited
Commonly grown crops: Corn, cotton, soybeans, and peanuts
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Competition from undesirable plants
Management measures and considerations:
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Restricted permeability
Management measures and considerations:
- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Greenville—not hydric

GsC2—Greenville sandy clay loam, 5 to 8 percent slopes, eroded

Setting

Landform: Hillslopes
Landform position: Backslopes and shoulder slopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Greenville and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 8 inches—reddish brown sandy clay loam

Subsoil:
8 to 60 inches—dark red sandy clay
60 to 80 inches—dark red clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Greenville soils that have slopes of less than 5 percent or more than 8 percent
- The loamy Orangeburg soils, which do not have a dark red or dark reddish brown subsoil, on knolls and shoulder slopes
- Scattered areas of the loamy Red Bay soils

Similar soils
- Scattered areas of Faceville soils, which do not have a dark red or dark reddish brown subsoil
- Scattered areas of Greenville soils that have a surface layer of sandy loam
- Scattered areas of soils that are similar to the Greenville soil but have a significant decrease in clay content in the lower part of the subsoil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Cropland, pasture, and hayland

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn, cotton, soybeans, and peanuts
Management concerns: Erodibility

Management measures and considerations:
- Using a resource management system that includes contour farming, conservation tillage, crop residue management, stripcropping, and a sod-based rotation reduces the hazard of further erosion, helps to control surface runoff, and maximizes infiltration of rainfall.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of further erosion and increases the rate of germination.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Competition from undesirable plants
Management measures and considerations:
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Restricted permeability
Management measures and considerations:
- Increasing the size of the absorption field and installing the distribution lines on the contour improve system performance.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Greenville—not hydric

GtD3—Greenville clay loam, 8 to 15 percent slopes, severely eroded

Setting

Landform: Hillslopes
Landform position: Backslopes, shoulder slopes, and footslopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Greenville and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 3 inches—reddish brown clay loam

Subsoil:
3 to 72 inches—dark red sandy clay

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Greenville soils that have slopes of less than 8 percent or more than 15 percent
- Luverne soils, which do not have a dark red or dark reddish brown subsoil and have mixed clay mineralogy, on the lower parts of slopes
- Scattered areas of the loamy Red Bay soils
- The loamy Smithdale soils, which do not have a dark red or dark reddish brown subsoil, on shoulder slopes

Similar soils
- Scattered areas of Greenville soils that have a surface layer of sandy loam
- Scattered areas of soils that are similar to the Greenville soil but have a significant decrease in clay content in the lower part of the subsoil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland
Suitability: Poorly suited
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Using a resource management system that includes contour farming, conservation tillage, crop residue management, stripcropping, and a sod-based rotation reduces the hazard of further erosion, helps to control surface runoff, and maximizes infiltration of rainfall.
- Cultivation should be restricted to the less sloping areas.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of further erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Equipment use and competition from undesirable plants
Management measures and considerations:
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Designing structures to conform to the natural slope helps to overcome the slope limitation.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of further erosion.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability and slope
Management measures and considerations:
- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Greenville—not hydric

HaC2—Halso fine sandy loam, 2 to 8 percent slopes, eroded

Setting

Landform: Ridges
Landform position: Summits, shoulder slopes, and saddles
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Halso and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 5 inches—brown fine sandy loam

Subsoil:
5 to 15 inches—yellowish red clay
15 to 34 inches—yellowish red clay that has grayish and brownish mottles
34 to 43 inches—strong brown clay that has brownish and grayish mottles

Substratum:
43 to 52 inches—gray and yellowish red clay
52 to 80 inches—gray clayey shale

Soil Properties and Qualities

Depth class: Deep
Drainage class: Moderately well drained
Permeability: Very slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: High
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: 40 to 60 inches to soft clayey shale or shale-like sediments

Minor Components

Dissimilar soils
- The moderately deep Arundel soils on the lower parts of slopes
- Halso soils that have slopes of more than 8 percent
- The sandy Lucy and Troup soils on high knolls
- The well drained Luverne and Williamsville soils, which do not have bedrock within a depth of 80 inches, on knolls
- The loamy Springhill soils on high knolls

Similar soils
- Scattered areas of Halso soils that have a surface layer of loam or clay loam
- Scattered areas of clayey soils that have soft shale or siltstone at a depth of more than 60 inches

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn, small grains, and truck crops
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Contour farming, no-till planting, crop residue management, stripcropping, and a sod-based rotation reduce the hazard of further erosion, stabilize the soil, help to control surface runoff, and maximize infiltration of rainfall.
- Tilling when the soil has the proper moisture content helps to prevent clodding and crusting and increases infiltration of water.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass, bahiagrass, red clover, and white clover
Management concerns: Erodibility
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of further erosion and increases the rate of germination.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted

use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.
- Special site preparation practices, such as harrowing and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Equipment use and erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited
Management concerns: Shrink-swell potential
Management measures and considerations:
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Unsuited
Management concerns: Restricted permeability and depth to bedrock
Management measures and considerations:
- This map unit is very limited as a site for septic tank absorption fields.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Shrink-swell potential and low strength
Management measures and considerations:
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Designing roads to incorporate water-control structures, such as culverts, broad-based dips, and waterbars, helps to prevent slippage of cut-and-fill slopes.

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Halso—not hydric

HaE2—Halso fine sandy loam, 8 to 20 percent slopes, eroded

Setting

Landform: Hillslopes
Landform position: Backslopes, saddles, and footslopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Halso and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 5 inches—brown fine sandy loam

Subsoil:
5 to 15 inches—yellowish red clay
15 to 34 inches—yellowish red clay that has grayish and brownish mottles
34 to 43 inches—strong brown clay that has brownish and grayish mottles

Substratum:
43 to 52 inches—gray and yellowish red clay
52 to 80 inches—gray clayey shale

Soil Properties and Qualities

Depth class: Deep
Drainage class: Moderately well drained
Permeability: Very slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: High
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: 40 to 60 inches to soft clayey shale or shale-like sediments

Minor Components

Dissimilar soils
- The moderately deep Arundel soils on the lower parts of slopes
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Halso soils that have slopes of less than 8 percent or more than 20 percent

- The well drained Luverne and Williamsville soils, which do not have bedrock within a depth of 80 inches, on the upper parts of slopes
- The loamy Springhill soils on shoulder slopes and summits of narrow ridges

Similar soils
- Scattered areas of Halso soils that have a surface layer of loam or clay loam
- Scattered areas of clayey soils that have soft shale or siltstone at a depth of more than 60 inches

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Poorly suited
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Using a resource management system that includes contour farming, conservation tillage, crop residue management, stripcropping, and a sod-based rotation reduces the hazard of further soil erosion, stabilizes the soil, helps to control surface runoff, and maximizes infiltration of water.
- Restricting field work to dry periods minimizes the rutting and compaction caused by the high content of clay in the soil.
- Tilling when the soil has the proper moisture content helps to prevent clodding and crusting and increases infiltration of water.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Coastal bermudagrass, bahiagrass, red clover, and white clover
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of further erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.

- Planting seedlings on raised beds and increasing the number of seedlings planted help to compensate for the high rate of seedling mortality that can occur where clay that has a high shrink-swell potential is near or at the surface.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

Wildlife habitat

Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor

Management concerns: Equipment use and erodibility

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Poorly suited

Management concerns: Shrink-swell potential and slope

Management measures and considerations:

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Designing structures to conform to the natural slope helps to overcome the slope limitation.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of further erosion.

Septic tank absorption fields

Suitability: Unsuited

Management concerns: Restricted permeability, depth to bedrock, and slope

Management measures and considerations:

- This map unit is very limited as a site for septic tank absorption fields.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets

Suitability: Poorly suited

Management concerns: Shrink-swell potential, low strength, and slope

Management measures and considerations:

- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, broad-based dips, and waterbars, help to prevent slippage of cut-and-fill slopes.

Interpretive Groups

Land capability classification: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Halso—not hydric

HsC2—Hannon-Sumter complex, 2 to 8 percent slopes, eroded

Setting

Landform: Ridges
Landform position: Hannon—crests and knolls; Sumter—shoulder slopes and saddles
Shape of areas: Irregular
Size of areas: 10 to 60 acres

Composition

Hannon and similar soils: 50 percent
Sumter and similar soils: 40 percent
Dissimilar soils: 10 percent

Typical Profiles

Hannon
Surface layer:
0 to 3 inches—very dark gray clay

Subsoil:
3 to 12 inches—yellowish red clay
12 to 22 inches—strong brown clay and light olive brown silty clay having brownish and reddish mottles
22 to 27 inches—light olive brown clay loam that has brownish mottles

Substratum:
27 to 34 inches—light yellowish brown clay loam that has masses of calcium carbonate
34 to 61 inches—light olive brown and brownish yellow sandy clay loam that has masses of calcium carbonate
61 to 80 inches—light olive brown loam that has masses of calcium carbonate

Sumter
Surface layer:
0 to 2 inches—very dark grayish brown clay loam
2 to 5 inches—olive brown clay loam

Subsoil:
5 to 23 inches—light olive brown clay loam and loam

Substratum:
23 to 29 inches—light yellowish brown sandy clay loam
29 to 80 inches—light brownish gray chalk that has thin strata of marl and indurated limestone

Soil Properties and Qualities

Depth class: Hannon—very deep; Sumter—moderately deep
Drainage class: Hannon—moderately well drained; Sumter—well drained
Permeability: Hannon—very slow; Sumter—slow

Available water capacity: Moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Hannon—very high; Sumter—moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Medium
Depth to bedrock: Hannon—more than 60 inches; Sumter—20 to 40 inches

Minor Components

Dissimilar soils
- The very deep, clayey Brantley soils on high knolls
- Scattered areas of Hannon and Sumter soils that have slopes of more than 8 percent
- Scattered, small areas of limestone outcrop

Similar soils
- Scattered areas of soils that are similar to the Hannon soil but do not have carbonates within a depth of 30 inches
- Scattered areas of soils that are similar to the Sumter soil but have chalk bedrock at a depth of more than 40 inches

Land Use

Dominant uses: Forestland, wildlife habitat, and pasture
Other uses: Cropland and hayland

Cropland
Suitability: Poorly suited
Commonly grown crops: Soybeans and grain sorghum
Management concerns: Erodibility, equipment use, and tilth
Management measures and considerations:
- Contour tillage, no-till planting, crop residue management, stripcropping, and a rotation that includes soil conserving crops reduce the hazard of further erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Incorporating crop residue into the soils or leaving residue on the surface and tilling during dry periods minimize clodding and crusting and maximize infiltration of water.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Bahiagrass, tall fescue, Johnsongrass, white clover, and dallisgrass
Management concerns: Erodibility
Management measures and considerations:
- Using equipment when the soils have the proper moisture content minimizes the rutting and compaction of the surface caused by the high content of silt and clay in the soils.
- Preparing seedbeds on the contour or across the slope reduces the hazard of further erosion and increases the rate of germination.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- Applying fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited

Productivity class: Hannon—high for loblolly pine; Sumter—moderate for eastern redcedar
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- Areas of the Sumter soil are unsuited to pine production because the soil is too alkaline.
- Unsurfaced roads may be impassable during wet periods because of the high content of silt and clay in the soils.
- Restricting the use of standard wheeled and tracked equipment to dry periods helps to prevent rutting and compaction.
- Special site preparation practices, such as harrowing and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential of the Hannon soil to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Potential of the Sumter soil to support habitat for: Openland wildlife and forestland wildlife—fair; wetland wildlife—very poor
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited
Management concerns: Hannon—shrink-swell potential; Sumter—shrink-swell potential and depth to rock
Management measures and considerations:
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- The soft bedrock underlying the Sumter soil does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.

Septic tank absorption fields
Suitability: Unsuited
Management concerns: Very slow permeability and depth to rock
Management concerns:
- This map unit is very limited as a site for septic tank absorption fields.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Hannon—shrink-swell potential and low strength; Sumter—depth to rock, shrink-swell potential, and low strength
Management measures and considerations:
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- The soft bedrock underlying the Sumter soil does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Hannon and Sumter—not hydric

ImA—Iuka-Marietta complex, 0 to 2 percent slopes, frequently flooded

Setting

Landform: Flood plains
Landform position: Iuka—high parts of natural levees; Marietta—low and intermediate parts of natural levees
Shape of areas: Long and narrow
Size of areas: 20 to 500 acres

Composition

Iuka and similar soils: 45 percent
Marietta and similar soils: 40 percent
Dissimilar soils: 15 percent

Typical Profiles

Iuka
Surface layer:
0 to 5 inches—brown fine sandy loam
5 to 9 inches—yellowish brown fine sandy loam

Substratum:
9 to 39 inches—light yellowish brown fine sandy loam that has grayish mottles
39 to 49 inches—light yellowish brown sandy clay loam that has brownish and grayish mottles
49 to 62 inches—gray sandy clay loam that has brownish mottles
62 to 80 inches—gray clay loam that has brownish mottles

Marietta
Surface layer:
0 to 3 inches—brown loam

Subsoil:
3 to 13 inches—dark yellowish brown clay loam
13 to 21 inches—brown sandy clay loam that has brownish mottles
21 to 32 inches—yellowish brown loam that has brownish and grayish mottles

Substratum:
32 to 42 inches—gray sandy clay loam that has brownish mottles
42 to 50 inches—light brownish gray sandy loam that has brownish mottles
50 to 80 inches—light brownish gray sandy clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Moderately well drained

Permeability: Moderate
Available water capacity: Iuka—moderate; Marietta—high
Seasonal high water table: Iuka—apparent, at a depth of 1 to 3 feet from December through April; Marietta—apparent, at a depth of 1 to 2 feet from December through April
Shrink-swell potential: Iuka—low; Marietta—moderate
Flooding: Frequent for brief periods from December through April
Content of organic matter in the surface layer: Medium
Natural fertility: Medium
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The somewhat poorly drained Casemore soils on low knolls
- The very poorly drained Fluvaquents, which are subject to ponding of long duration, in depressions
- The somewhat poorly drained, clayey Leeper and loamy Mantachie soils on low parts of natural levees and in backswamps

Similar soils
- Well drained, loamy soils on high parts of natural levees

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland
Suitability: Poorly suited
Management concerns: This map unit is very limited for crop production because of the flooding and wetness. A site that has better suited soils should be selected.

Pasture and hayland
Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Common bermudagrass, bahiagrass, and white clover
Management concerns: Flooding and wetness
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, livestock and hay may be damaged during any time of the year.
- Well maintained drainageways and ditches help to remove excess water.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.

Forestland
Suitability: Suited
Productivity class: Very high for loblolly pine and hardwoods
Management concerns: Equipment use and competition from undesirable plants
Management measures and considerations:
- Restricting the use of standard wheeled and tracked equipment to dry periods helps to prevent rutting and compaction.
- Harvesting timber during the summer or fall reduces the risk of damage from the flooding.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

Wildlife habitat

Potential to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—poor

Management concerns: Equipment use, flooding, and wetness

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Urban development

Suitability: Unsuited

Management concerns: This map unit is very limited as a site for urban development because of the flooding and wetness. A site that has better suited soils should be selected.

Interpretive Groups

Land capability classification: 5w

Prime farmland status: Not prime farmland

Hydric soil status: Iuka and Marietta—not hydric

LaA—Leeper-Marietta complex, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains

Landform position: Leeper—backswamps; Marietta—natural levees

Shape of areas: Long and narrow

Size of areas: 200 to 2,500 acres

Composition

Leeper and similar soils: 50 percent

Marietta and similar soils: 35 percent

Dissimilar soils: 15 percent

Typical Profiles

Leeper

Surface layer:

0 to 3 inches—very dark grayish brown loam

Subsoil:

3 to 12 inches—light olive brown clay that has grayish mottles

12 to 30 inches—grayish brown clay that has grayish and brownish mottles

30 to 62 inches—gray clay that has brownish mottles

Substratum:

62 to 80 inches—light olive brown clay that has brownish and grayish mottles and has nodules of calcium carbonate

Marietta

Surface layer:

0 to 3 inches—brown loam

Subsoil:
3 to 13 inches—dark yellowish brown clay loam
13 to 21 inches—brown sandy clay loam that has brownish mottles
21 to 32 inches—yellowish brown loam that has brownish and grayish mottles

Substratum:
32 to 42 inches—gray sandy clay loam that has brownish mottles
42 to 50 inches—light brownish gray sandy loam that has brownish mottles
50 to 80 inches—light brownish gray sandy clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Leeper—somewhat poorly drained; Marietta—moderately well drained
Permeability: Leeper—very slow; Marietta—moderate
Available water capacity: High
Seasonal high water table: Apparent, at a depth of 1 to 2 feet from December through April
Shrink-swell potential: Leeper—high; Marietta—moderate
Flooding: Occasional for brief periods from December through April
Content of organic matter in the surface layer: Medium
Natural fertility: Medium
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The somewhat poorly drained Casemore soils on low knolls
- The very poorly drained Fluvaquents, which are subject to ponding of long duration, in depressions
- The moderately well drained, loamy Iuka soils, which have a lower content of clay in the subsoil than the Marietta soils, on high parts of natural levees
- The poorly drained, loamy Kinston soils in backswamps
- The somewhat poorly drained, loamy Mantachie soils on low parts of natural levees

Similar soils
- Well drained, loamy soils on high parts of natural levees
- Scattered areas of Leeper soils that have a surface layer of silty clay loam or sandy loam

Land Use

Dominant uses: Pasture and hayland
Other uses: Forestland, cropland, and wildlife habitat

Cropland
Suitability: Poorly suited
Management concerns: Flooding and wetness
Management measures and considerations:
- This map unit is difficult to manage for cultivated crops because of the hazard of flooding during the growing season.
- Using well maintained open ditches to remove excess water improves productivity.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited

Commonly grown crops: Common bermudagrass, tall fescue, dallisgrass, Johnsongrass, and white clover
Management concerns: Flooding and wetness
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, livestock and hay may be damaged during any time of the year.
- Using well maintained open ditches to remove excess water improves productivity.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for hardwoods
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- Restricting the use of standard wheeled and tracked equipment to dry periods helps to prevent rutting and compaction.
- Harvesting timber during the summer or fall reduces the risk of damage from the flooding.
- Bedding the Leeper soil prior to planting helps to establish seedlings and increases the seedling survival rate.
- Standard site preparation practices, such as applying herbicides and chopping, help to control competition from undesirable plants.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

Wildlife habitat
Potential to support habitat for: Openland wildlife and wetland wildlife—fair; forestland wildlife—good
Management concerns: Equipment use and wetness
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Urban development
Suitability: Unsuited
Management concerns: This map unit is very limited as a site for urban development because of the flooding. A site that has better suited soils should be selected.

Interpretive Groups

Land capability classification: Leeper—4w; Marietta—3w
Prime farmland status: Not prime farmland
Hydric soil status: Leeper and Marietta—not hydric

LcB—Lucy loamy sand, 0 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Summits and shoulder slopes
Shape of areas: Irregular
Size of areas: 10 to 150 acres

Composition

Lucy and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 6 inches—yellowish brown loamy sand

Subsurface layer:
6 to 25 inches—light yellowish brown and yellowish brown loamy sand

Subsoil:
25 to 32 inches—yellowish red sandy loam
32 to 41 inches—yellowish red sandy clay loam
41 to 80 inches—red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Low
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Blanton and Troup soils, which have sandy surface and subsurface layers with a combined thickness of 40 to 80 inches, on small knolls
- Fuquay soils, which have a significant accumulation of plinthite in the subsoil, in saddles and on the lower parts of slopes
- Lucy soils that have slopes of more than 5 percent
- Orangeburg soils, which do not have thick, sandy surface and subsurface layers, on crests of ridges and on shoulder slopes

Similar soils
- Scattered areas of Lucy soils that have surface and subsurface layers of loamy fine sand or sand

Land Use

Dominant uses: Pasture, forestland, and wildlife habitat
Other uses: Cropland and hayland

Cropland
Suitability: Suited
Commonly grown crops: Peanuts, corn, truck crops, and watermelons

Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: High for loblolly pine and longleaf pine
Management concerns: Seedling survival
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—fair; wetland wildlife—very poor
Management concerns: Droughtiness and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 2s
Prime farmland status: Not prime farmland
Hydric soil status: Lucy—not hydric

LcC—Lucy loamy sand, 5 to 8 percent slopes

Setting

Landform: Ridges
Landform position: Shoulder slopes and backslopes
Shape of areas: Irregular
Size of areas: 5 to 150 acres

Composition

Lucy and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 6 inches—yellowish brown loamy sand

Subsurface layer:
6 to 25 inches—light yellowish brown and yellowish brown loamy sand

Subsoil:
25 to 32 inches—yellowish red sandy loam
32 to 41 inches—yellowish red sandy clay loam
41 to 80 inches—red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Low
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils

- Blanton and Troup soils, which have sandy surface and subsurface layers with a combined thickness of 40 to 80 inches, on knolls and on the lower parts of slopes
- Fuquay soils, which have a significant accumulation of plinthite in the subsoil, in saddles and on the lower parts of slopes
- Lucy soils that have slopes of less than 5 percent or more than 8 percent
- Orangeburg soils, which do not have thick, sandy surface and subsurface layers, on crests of narrow ridges and on shoulder slopes

Similar soils

- Scattered areas of Lucy soils that have surface and subsurface layers of loamy fine sand or sand

Land Use

Dominant uses: Pasture and hayland
Other uses: Cropland, forestland, and wildlife habitat

Cropland
Suitability: Suited
Commonly grown crops: Corn, peanuts, cotton, and soybeans
Management concerns: Erodibility, droughtiness, and nutrient leaching
Management measures and considerations:
- Using a resource management system that includes stripcropping, contour tillage, conservation tillage, and crop residue management reduces the hazard of erosion, helps to control surface runoff, and maximizes infiltration of rainfall.
- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility, droughtiness, and nutrient leaching
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: High for loblolly pine and longleaf pine
Management concerns: Seedling survival
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—fair; wetland wildlife—very poor
Management concerns: Droughtiness and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 3s
Prime farmland status: Not prime farmland
Hydric soil status: Lucy—not hydric

LvB—Luverne sandy loam, 2 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Summits, saddles, and shoulder slopes
Shape of areas: Irregular
Size of areas: 5 to 150 acres

Composition

Luverne and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 4 inches—dark grayish brown sandy loam
4 to 7 inches—yellowish brown sandy loam

Subsoil:
7 to 16 inches—yellowish red sandy clay
16 to 21 inches—red sandy clay that has brownish mottles
21 to 34 inches—yellowish red sandy clay loam that has yellowish mottles
34 to 45 inches—yellowish red sandy loam that has reddish and grayish mottles

Substratum:
45 to 60 inches—strong brown sandy loam that has reddish mottles
60 to 82 inches—stratified strong brown sandy loam and gray loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Moderate
Flooding: None
Content of organic matter in the surface layer: Low

Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The moderately deep Arundel and deep Halso soils in saddles
- The sandy Lucy soils on knolls and shoulder slopes
- Luverne soils that have slopes of more than 5 percent
- The loamy Orangeburg soils on knolls
- The loamy Smithdale and Springhill soils on shoulder slopes

Similar soils
- Scattered areas of well drained, clayey soils that have less clay in the substratum than the Luverne soils
- Scattered areas of Williamsville soils, which have fragments of fossil oyster shell and accumulations of glauconitic sand
- Scattered areas of well drained, clayey soils that have more than 30 percent silt in the upper part of the subsoil
- Very deep, moderately well drained, clayey soils on the lower parts of slopes and around the heads of drains

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture, hayland, cropland, and homesites

Cropland
Suitability: Suited
Commonly grown crops: Corn, cotton, small grains, and truck crops
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Equipment use and competition from undesirable plants
Management measures and considerations:
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.

- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Suited
Management concerns: Shrink-swell potential
Management measures and considerations:
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability
Management measures and considerations:
- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Low strength and shrink-swell potential
Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a moderate shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Prime farmland
Hydric soil status: Luverne—not hydric

LvC—Luverne sandy loam, 5 to 8 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes and shoulder slopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Luverne and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 4 inches—dark grayish brown sandy loam
4 to 7 inches—yellowish brown sandy loam

Subsoil:
7 to 16 inches—yellowish red sandy clay
16 to 21 inches—red sandy clay that has brownish mottles
21 to 34 inches—yellowish red sandy clay loam that has yellowish mottles
34 to 45 inches—yellowish red sandy loam that has reddish and grayish mottles

Substratum:
45 to 60 inches—strong brown sandy loam that has reddish mottles
60 to 82 inches—stratified strong brown sandy loam and gray loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The moderately deep Arundel and deep Halso soils in saddles
- The sandy Lucy soils on knolls and shoulder slopes
- Luverne soils that have slopes of less than 5 percent or more than 8 percent
- The loamy Orangeburg soils on crests of narrow ridges and on shoulder slopes
- The loamy Smithdale and Springhill soils on shoulder slopes

Similar soils
- Scattered areas of well drained, clayey soils that have less clay in the substratum than the Luverne soils
- Scattered areas of Williamsville soils, which have fragments of fossil oyster shell and accumulations of glauconitic sand
- Scattered areas of well drained, clayey soils that have more than 30 percent silt in the upper part of the subsoil
- Very deep, moderately well drained, clayey soils on the lower parts of slopes and around the heads of drains

Land Use

Dominant uses: Forestland and wildlife habitat (fig. 6)
Other uses: Pasture and hayland

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn and soybeans
Management concerns: Erodibility
Management measures and considerations:
• Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
• Cultivation should be restricted to the less sloping areas.
• Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and equipment use
Management measures and considerations:
• Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
• The slope may limit equipment use in the steeper areas when hay is harvested.
• Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
• Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Figure 6.—A well managed stand of loblolly pine in an area of Luverne sandy loam, 5 to 8 percent slopes. This area is managed for timber production and as habitat for forestland wildlife.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Equipment use and competition from undesirable plants
Management measures and considerations:
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Suited
Management concerns: Shrink-swell potential
Management measures and considerations:
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability
Management measures and considerations:
- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Low strength and shrink-swell potential
Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.

- Removing as much of the clay that has a moderate shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Luverne—not hydric

LvD—Luverne sandy loam, 8 to 15 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes, saddles, and footslopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Luverne and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 4 inches—dark grayish brown sandy loam
4 to 7 inches—yellowish brown sandy loam

Subsoil:
7 to 16 inches—yellowish red sandy clay
16 to 21 inches—red sandy clay that has brownish mottles
21 to 34 inches—yellowish red sandy clay loam that has yellowish mottles
34 to 45 inches—yellowish red sandy loam that has reddish and grayish mottles

Substratum:
45 to 60 inches—strong brown sandy loam that has reddish mottles
60 to 82 inches—stratified strong brown sandy loam and gray loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils

- The moderately deep Arundel and deep Halso soils on the lower parts of slopes
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains

- Luverne soils that have slopes of less than 8 percent or more than 15 percent
- The sandy Lucy and loamy Orangeburg soils on crests of narrow ridges and on shoulder slopes
- The loamy Smithdale and Springhill soils on shoulder slopes

Similar soils
- Scattered areas of well drained, clayey soils that have less clay in the substratum than the Luverne soil
- Scattered areas of well drained, clayey soils that have more than 30 percent silt in the upper part of the subsoil
- Very deep, moderately well drained, clayey soils on the lower parts of slopes and around the heads of drains

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland
Suitability: Poorly suited
Commonly grown crops: None
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Cultivation should be restricted to the less sloping areas.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Equipment use and competition from undesirable plants
Management measures and considerations:
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Suited
Management concerns: Slope and shrink-swell potential
Management measures and considerations:
- Designing structures to conform to the natural slope helps to overcome the slope limitation.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability and slope
Management measures and considerations:
- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Low strength, slope, and shrink-swell potential
Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a moderate shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Luverne—not hydric

LvE—Luverne sandy loam, 15 to 25 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes and footslopes
Shape of areas: Irregular
Size of areas: 40 to 300 acres

Composition

Luverne and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 4 inches—dark grayish brown sandy loam
4 to 7 inches—yellowish brown sandy loam

Subsoil:
7 to 16 inches—yellowish red sandy clay
16 to 21 inches—red sandy clay that has brownish mottles
21 to 34 inches—yellowish red sandy clay loam that has yellowish mottles
34 to 45 inches—yellowish red sandy loam that has reddish and grayish mottles

Substratum:
45 to 60 inches—strong brown sandy loam that has reddish mottles
60 to 82 inches—stratified strong brown sandy loam and gray loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The moderately deep Arundel and deep Halso soils on the lower parts of slopes
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Luverne soils that have slopes of less than 15 percent or more than 25 percent
- The sandy Lucy and loamy Orangeburg soils on crests of narrow ridges and on shoulder slopes
- The loamy Smithdale and Springhill soils on shoulder slopes

Similar soils
- Scattered areas of well drained, clayey soils that have less clay in the substratum than the Luverne soil
- Scattered areas of well drained, clayey soils that have more than 30 percent silt in the upper part of the subsoil
- Very deep, moderately well drained, clayey soils on the lower parts of slopes and around the heads of drains

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Unsuited
Management concerns: This map unit is very limited for crop production because of the slope. A site that has better suited soils should be selected.

Pasture and hayland
Suitability: Poorly suited to pasture; unsuited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and equipment use
Management measures and considerations:
- The slope may limit equipment use in the steeper areas.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited
Productivity class: Very high for loblolly pine
Management concerns: Erodibility, equipment use, and competition from undesirable plants
Management measures and considerations:
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited

Management concerns: Slope and shrink-swell potential
Management measures and considerations:
- Designing structures to conform to the natural slope helps to overcome the slope limitation.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability and slope
Management measures and considerations:
- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Slope, low strength, and shrink-swell potential
Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a moderate shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Luverne—not hydric

MbB—Malbis fine sandy loam, 1 to 3 percent slopes

Setting

Landform: Ridges
Landform position: Summits
Shape of areas: Irregular
Size of areas: 10 to 300 acres

Composition

Malbis and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 10 inches—brown fine sandy loam

Subsoil:
10 to 15 inches—yellowish brown fine sandy loam

15 to 28 inches—yellowish brown sandy clay loam
28 to 45 inches—yellowish brown sandy clay loam that has brownish mottles and has masses of nodular plinthite
45 to 80 inches—yellowish brown sandy clay loam that has brownish, reddish, and grayish mottles and has masses of nodular plinthite

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Seasonal high water table: Perched, at a depth of $2^1/_2$ to 4 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Malbis soils that have slopes of more than 3 percent
- Orangeburg soils, which have a reddish subsoil and do not have a significant accumulation of plinthite, on knolls and shoulder slopes
- The poorly drained Rains soils in shallow depressions

Similar soils
- Scattered areas of Malbis soils that have a surface layer of loam
- Scattered areas of moderately well drained Malbis soils

Land Use

Dominant uses: Cropland, pasture, and hayland
Other uses: Homesites, forestland, and wildlife habitat

Cropland
Suitability: Well suited
Commonly grown crops: Corn, cotton, peanuts, and soybeans
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: No significant limitations affect management of pasture and hayland.
Management measures and considerations:
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Competition from undesirable plants
Management measures and considerations:
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Suited
Management concerns: Restricted permeability and wetness
Management measures and considerations:
- This map unit is difficult to manage for septic tank absorption fields because the dominant soil has a seasonal high water table at a depth of $2^1/_2$ to 4 feet.
- Increasing the size of the absorption field and using suitable fill material to raise it a sufficient distance above the seasonal high water table improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Malbis—not hydric

MbC—Malbis fine sandy loam, 5 to 8 percent slopes

Setting

Landform: Ridges
Landform position: Backslopes and shoulder slopes

Shape of areas: Irregular
Size of areas: 10 to 150 acres

Composition

Malbis and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 10 inches—brown fine sandy loam

Subsoil:
10 to 15 inches—yellowish brown fine sandy loam
15 to 28 inches—yellowish brown sandy clay loam
28 to 45 inches—yellowish brown sandy clay loam that has brownish mottles and has masses of nodular plinthite
45 to 80 inches—yellowish brown sandy clay loam that has brownish, reddish, and grayish mottles and has masses of nodular plinthite

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Seasonal high water table: Perched, at a depth of $2^1/_2$ to 4 feet from December through March
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The clayey Luverne soils on the lower parts of slopes
- Malbis soils that have slopes of less than 5 percent or more than 8 percent
- Orangeburg soils, which have a reddish subsoil and do not have a significant accumulation of plinthite, on knolls and shoulder slopes
- The poorly drained Rains soils in shallow depressions and swales

Similar soils
- Scattered areas of Malbis soils that have a surface layer of loam
- Scattered areas of moderately well drained Malbis soils

Land Use

Dominant uses: Cropland, pasture, and hayland
Other uses: Homesites, forestland, and wildlife habitat

Cropland
Suitability: Suited
Commonly grown crops: Corn, cotton, peanuts, and soybeans
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.

- The complexity of the slope limits the use of terraces in narrow areas.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Competition from undesirable plants
Management measures and considerations:
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability and wetness
Management measures and considerations:
- This map unit is difficult to manage for septic tank absorption fields because the dominant soil has a seasonal high water table at a depth of $2^{1}/_{2}$ to 4 feet.
- Increasing the size of the absorption field, using suitable fill material to raise it a sufficient distance above the seasonal high water table, and installing the distribution lines on the contour improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Prime farmland
Hydric soil status: Malbis—not hydric

MKA—Mantachie, Kinston, and Iuka soils, 0 to 1 percent slopes, frequently flooded

Setting

Landform: Flood plains
Landform position: Mantachie—flat and slightly convex slopes on low parts of natural levees and in backswamps; Kinston—flat and concave slopes in backswamps; Iuka—convex slopes on high and intermediate parts of natural levees
Shape of areas: Long and narrow
Size of areas: 20 to 500 acres

Composition

The composition of this map unit is variable. Some areas consist mainly of the Mantachie soil, some areas consist mainly of the Kinston or Iuka soil, and other areas contain all three soils in variable proportions. The composition of a representative unit is 40 percent Mantachie and similar soils, 25 percent Kinston and similar soils, 20 percent Iuka and similar soils, and 15 percent dissimilar soils.

Typical Profiles

Mantachie
Surface layer:
0 to 2 inches—very dark grayish brown loam
2 to 6 inches—dark grayish brown sandy clay loam

Subsoil:
6 to 15 inches—yellowish brown fine sandy loam that has brownish and grayish mottles
15 to 29 inches—yellowish brown sandy clay loam that has brownish and grayish mottles
29 to 62 inches—light brownish gray and gray sandy clay loam that has brownish mottles

Substratum:
62 to 72 inches—light brownish gray sandy clay loam that has brownish mottles
72 to 80 inches—light brownish gray fine sandy loam that has brownish mottles

Kinston
Surface layer:
0 to 5 inches—dark gray loam that has reddish mottles

Subsoil:
5 to 18 inches—gray loam that has brownish mottles
18 to 30 inches—gray sandy clay loam that has brownish and reddish mottles

Substratum:
30 to 38 inches—grayish brown loam that has brownish and reddish mottles

38 to 50 inches—gray sandy clay loam that has brownish mottles
50 to 72 inches—gray clay loam that has brownish mottles
72 to 80 inches—gray sandy clay loam that has brownish mottles and has strata of sandy loam

Iuka
Surface layer:
0 to 5 inches—brown fine sandy loam
5 to 9 inches—yellowish brown fine sandy loam

Substratum:
9 to 39 inches—light yellowish brown fine sandy loam that has grayish mottles
39 to 49 inches—light yellowish brown sandy clay loam that has brownish and grayish mottles
49 to 62 inches—gray sandy clay loam that has brownish mottles
62 to 80 inches—gray clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Mantachie—somewhat poorly drained; Kinston—poorly drained; Iuka—moderately well drained
Permeability: Moderate
Available water capacity: Mantachie and Kinston—high; Iuka—moderate
Seasonal high water table: Mantachie—apparent, at a depth of $^1/_2$ to $1^1/_2$ feet from December through April; Kinston—apparent, at the surface to a depth of 1 foot from December through April; Iuka—apparent, at a depth of 1 to 3 feet from December through April
Shrink-swell potential: Low
Flooding: Frequent for brief periods from December through April
Content of organic matter in the surface layer: Medium
Natural fertility: Medium
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The moderately well drained Eunola soils on low knolls
- The very poorly drained Fluvaquents, which are subject to ponding of long duration, in depressions
- The sandy, somewhat poorly drained Ocilla and poorly drained Pelham soils on low knolls

Similar soils
- Well drained or moderately well drained, loamy soils that have a higher content of clay in the subsoil than Iuka soils; on high or intermediate parts of natural levees
- Scattered areas of poorly drained Bibb soils, which have a lower content of clay in the subsoil and substratum than the Kinston soil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland
Suitability: Poorly suited
Management concerns: This map unit is very limited for crop production because of the flooding and wetness. A site that has better suited soils should be selected.

Pasture and hayland
Suitability: Suited to pasture; poorly suited to hayland

Commonly grown crops: Common bermudagrass, bahiagrass, and white clover
Management concerns: Flooding and wetness
Management measures and considerations:
• Although most of the flooding occurs during the winter and spring, livestock and hay may be damaged during any time of the year.
• Well maintained drainageways and ditches help to remove excess water.
• Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.

Forestland
Suitability: Suited
Productivity class: Very high for loblolly pine and hardwoods
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
• Restricting the use of standard wheeled and tracked equipment to dry periods helps to prevent rutting and compaction.
• Harvesting timber during the summer or fall reduces the risk of damage from the flooding.
• Bedding the Mantachie and Kinston soils prior to planting helps to establish seedlings and increases the seedling survival rate.
• Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
• Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

Wildlife habitat
Potential of the Mantachie soil to support habitat for: Openland wildlife and wetland wildlife—fair; forestland wildlife—good
Potential of the Kinston soil to support habitat for: Openland wildlife and forestland wildlife—poor; wetland wildlife—fair
Potential of the Iuka soil to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—poor
Management concerns: Equipment use, flooding, and wetness
Management measures and considerations:
• Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
• Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants.
• Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Urban development
Suitability: Unsuited
Management concerns: This map unit is very limited as a site for urban development because of the flooding and wetness. A site that has better suited soils should be selected.

Interpretive Groups

Land capability classification: Mantachie and Iuka—5w; Kinston—6w
Prime farmland status: Not prime farmland
Hydric soil status: Mantachie and Iuka—not hydric; Kinston—hydric

NsE—Nankin-Springhill-Lucy complex, 15 to 35 percent slopes

Setting

Landform: Hillslopes
Landform position: Nankin and Springhill—nose slopes, backslopes, and footslopes; Lucy—shoulder slopes
Shape of areas: Irregular
Size of areas: 40 to 300 acres

Composition

Nankin and similar soils: 40 percent
Springhill and similar soils: 26 percent
Lucy and similar soils: 25 percent
Dissimilar soils: 9 percent

Typical Profiles

Nankin
Surface layer:
0 to 3 inches—dark yellowish brown fine sandy loam

Subsoil:
3 to 28 inches—yellowish red sandy clay
28 to 42 inches—red sandy clay loam that has brownish mottles
42 to 60 inches—red sandy clay loam that has thin strata of loamy sand

Substratum:
60 to 80 inches—red sandy loam that has thin strata of brownish sandy loam and loamy sand

Springhill
Surface layer:
0 to 6 inches—brown sandy loam

Subsoil:
6 to 50 inches—red sandy clay loam
50 to 80 inches—red sandy loam that has brownish mottles

Lucy
Surface layer:
0 to 6 inches—yellowish brown loamy sand

Subsurface layer:
6 to 25 inches—light yellowish brown and yellowish brown loamy sand

Subsoil:
25 to 32 inches—yellowish red sandy loam
32 to 41 inches—yellowish red sandy clay loam
41 to 80 inches—red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Nankin—moderately slow; Springhill—moderate; Lucy—rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Nankin and Springhill—high: Lucy—low
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low

Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils

- The moderately deep Arundel soils on the lower parts of slopes
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Blanton and Troup soils, which have sandy surface and subsurface layers with a combined thickness of 40 to 80 inches, on the lower parts of slopes
- The loamy Cowarts soils, which have a brownish subsoil, in positions similar to those of the Springhill soil
- The clayey Luverne soils, which have mixed clay mineralogy, in positions similar to those of the Nankin soil
- Nankin, Springhill, and Lucy soils that have slopes of less than 15 percent or more than 35 percent

Similar soils

- Scattered areas of Nankin and Springhill soils that have a surface layer of loamy sand
- Very deep, moderately well drained, clayey soils on the lower parts of slopes and around the heads of drains

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Unsuited
Management concerns: This map unit is very limited for crop production because of the slope. A site that has better suited soils should be selected.

Pasture and hayland
Suitability: Poorly suited to pasture; unsuited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and equipment use
Management measures and considerations:

- The slope may limit equipment use in the steeper areas.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited
Productivity class: Very high for loblolly pine
Management concerns: Erodibility, equipment use, and competition from undesirable plants
Management measures and considerations:

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.

- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited
Management concerns: Slope
Management measures and considerations:
- Structures can be designed to conform to the natural slope.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Nankin—restricted permeability and slope; Springhill and Lucy—slope
Management measures and considerations:
- Increasing the size of the absorption field improves the performance of the system in areas of the Nankin soil.
- Installing the distribution lines on the contour improves the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Nankin—low strength and slope; Springhill and Lucy—slope
Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material in areas of the Nankin soil.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Nankin, Springhill, and Lucy—not hydric

OrA—Orangeburg sandy loam, 0 to 2 percent slopes

Setting

Landform: Ridges
Landform position: Summits
Shape of areas: Irregular
Size of areas: 5 to 250 acres

Composition

Orangeburg and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 3 inches—brown sandy loam
3 to 8 inches—dark yellowish brown sandy loam

Subsoil:
8 to 24 inches—yellowish red sandy clay loam
24 to 80 inches—red sandy clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Dothan soils, which have a brownish subsoil and a significant accumulation of plinthite in the subsoil, in slightly lower positions than those of the Orangeburg soil
- The clayey Faceville and Greenville soils in slightly lower positions than those of the Orangeburg soil
- The sandy Lucy soils on knolls
- Orangeburg soils that have slopes of more than 2 percent

Similar soils
- Scattered areas of Orangeburg soils that have a surface layer of loamy sand
- Scattered areas of Red Bay soils, which have a dark red or dark reddish brown subsoil

Land Use

Dominant uses: Pasture, hayland, cropland, and homesites
Other uses: Forestland and wildlife habitat

Cropland
Suitability: Well suited
Commonly grown crops: Corn, cotton, peanuts (fig. 7), soybeans, small grains, and truck crops
Management concerns: No significant limitations affect management of cropland.

Figure 7.—Peanuts in area of Orangeburg sandy loam, 0 to 2 percent slopes. This map unit is well suited to cultivated crops, such as peanuts, cotton, and corn. These peanuts have been inverted to dry for a few days prior to harvesting.

Management measures and considerations:
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: No significant limitations affect management of pasture and hayland.
Management measures and considerations:
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: No significant limitations affect management of forestland.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: No significant limitations affect management for wildlife habitat.
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation,

maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Orangeburg—not hydric

OrB—Orangeburg sandy loam, 2 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Backslopes and shoulder slopes
Shape of areas: Irregular
Size of areas: 5 to 250 acres

Composition

Orangeburg and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 3 inches—brown sandy loam
3 to 8 inches—dark yellowish brown sandy loam

Subsoil:
8 to 24 inches—yellowish red sandy clay loam
24 to 80 inches—red sandy clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Dothan soils, which have a brownish subsoil that has a significant accumulation of plinthite, on nose slopes
- The clayey Faceville and Greenville soils in saddles and on the lower parts of slopes
- The sandy Lucy soils on knolls and shoulder slopes
- Orangeburg soils that have slopes of less than 2 percent or more than 5 percent

Similar soils
- Scattered areas of Orangeburg soils that have a surface layer of loamy sand
- Scattered areas of Red Bay soils, which have a dark red or dark reddish brown subsoil

Land Use

Dominant uses: Pasture, hayland, cropland, and homesites
Other uses: Forestland and wildlife habitat

Cropland
Suitability: Well suited
Commonly grown crops: Corn, cotton, peanuts, soybeans, small grains, and truck crops (fig. 8)
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.

Figure 8.—Peanuts in an area of Orangeburg sandy loam, 2 to 5 percent slopes. These peanuts have been inverted and are ready for harvest. They were planted on the contour. Conservation practices, such as contour farming, terraces, and buffer strips, increase water infiltration, reduce the runoff rate, and help to control erosion.

- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland

Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: No significant limitations affect management of pasture and hayland.
Management measures and considerations:
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland

Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: No significant limitations affect management of forestland.

Wildlife habitat

Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: No significant limitations affect management for wildlife habitat.
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields

Suitability: Well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets

Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Orangeburg—not hydric

OrC—Orangeburg sandy loam, 5 to 8 percent slopes

Setting

Landform: Ridges
Landform position: Backslopes and footslopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Orangeburg and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 3 inches—brown sandy loam
3 to 8 inches—dark yellowish brown sandy loam

Subsoil:
8 to 24 inches—yellowish red sandy clay loam
24 to 80 inches—red sandy clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Dothan soils, which have a brownish subsoil that has a significant accumulation of plinthite, on nose slopes
- The clayey Faceville and Greenville soils in saddles and on the lower parts of slopes
- The sandy Lucy soils on knolls and shoulder slopes
- Orangeburg soils that have slopes of less than 5 percent or more than 8 percent

Similar soils
- Scattered areas of Orangeburg soils that have a surface layer of loamy sand or sandy clay loam
- Scattered areas of Red Bay soils, which have a dark red or dark reddish brown subsoil
- Moderately well drained, loamy soils on the lower parts of slopes and near the heads of drains

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland
Suitability: Suited
Commonly grown crops: Corn, cotton, peanuts, and soybeans

Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- The complexity of the slope limits the use of terraces in narrow areas.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Pasture—well suited; hayland—suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and slope
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: No significant limitations affect management of forestland.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Prime farmland
Hydric soil status: Orangeburg—not hydric

OuC—Orangeburg-Urban land complex, 0 to 8 percent slopes

Setting

Landform: Ridges
Landform position: Summits, shoulder slopes, and backslopes
Shape of areas: Rectangular
Size of areas: 50 to 820 acres

Composition

Orangeburg and similar soils: 50 percent
Urban land and similar areas: 40 percent
Dissimilar soils: 10 percent

Typical Profiles

Orangeburg
Surface layer:
0 to 3 inches—brown sandy loam
3 to 8 inches—dark yellowish brown sandy loam

Subsoil:
8 to 24 inches—yellowish red sandy clay loam
24 to 80 inches—red sandy clay loam that has brownish mottles

Urban land
Urban land consists of areas that are covered by roads, buildings, parking lots, houses, and other structures.

Soil Properties and Qualities

Orangeburg
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Dothan soils, which have a brownish subsoil that has a significant accumulation of plinthite, on nose slopes
- The clayey Faceville and Greenville soils in saddles and on the lower parts of slopes
- The sandy Lucy soils on knolls and shoulder slopes
- Orangeburg soils that have slopes of more than 8 percent

Similar soils
- Scattered areas of Orangeburg soils that have a surface layer of loamy sand or sandy clay loam
- Scattered areas of Red Bay soils, which have a dark red or dark reddish brown subsoil
- Moderately well drained, loamy soils on the lower parts of slopes and near the heads of drains

Land Use

Dominant uses: Residential, commercial, and industrial uses
Other uses: Parks, lawns, gardens, golf courses, and other recreational uses

Cropland
Suitability: Poorly suited
Management concerns: This map unit is difficult to manage for crop production because of the limited size of the areas, the intermingled areas of urban land, and the areas of highly disturbed soils.

Pasture and hayland
Suitability: Poorly suited
Management concerns: This map unit is difficult to manage for pasture and hayland because of the limited size of the areas, the intermingled areas of urban land, and the areas of highly disturbed soils.

Forestland
Suitability: Poorly suited
Management concerns: This map unit is difficult to manage for forestland because of the limited size of the areas, the intermingled areas of urban land, and the areas of highly disturbed soils. In areas of this map unit, trees are primarily planted for aesthetic value.

Wildlife habitat
Suitability: Poorly suited
Management concerns: This map unit is difficult to manage for wildlife habitat because of the limited size of the areas, the intermingled areas of urban land, and the areas of highly disturbed soils.

Dwellings
Suitability: Orangeburg—well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Orangeburg—well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets
Suitability: Orangeburg—well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: Orangeburg—3e; Urban land—8s
Prime farmland status: Not prime farmland
Hydric soil status: Orangeburg and Urban land—not hydric

PoA—Pelham-Ocilla complex, 0 to 2 percent slopes, rarely flooded

Setting

Landform: Low stream terraces
Landform position: Pelham—concave positions; Ocilla—flat and slightly convex positions
Shape of areas: Oblong
Size of areas: 10 to 50 acres

Composition

Pelham and similar soils: 50 percent
Ocilla and similar soils: 40 percent
Dissimilar soils: 10 percent

Typical Profiles

Pelham
Surface layer:
0 to 8 inches—very dark gray loamy fine sand

Subsurface layer:
8 to 15 inches—dark gray loamy fine sand that has brownish mottles
15 to 24 inches—light gray loamy fine sand that has brownish mottles

Subsoil:
24 to 36 inches—gray sandy loam that has brownish mottles
36 to 52 inches—gray sandy clay loam that has brownish mottles
52 to 80 inches—grayish brown and light brownish gray sandy clay loam that has brownish and reddish mottles

Ocilla
Surface layer:
0 to 6 inches—dark grayish brown loamy fine sand

Subsurface layer:
6 to 12 inches—brown loamy fine sand
12 to 24 inches—light yellowish brown loamy fine sand that has brownish and grayish mottles

Subsoil:
24 to 45 inches—yellowish brown sandy clay loam that has grayish and reddish mottles
45 to 60 inches—brownish yellow sandy clay loam that has grayish and brownish mottles
60 to 80 inches—gray sandy clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Pelham—poorly drained; Ocilla—somewhat poorly drained
Permeability: Pelham—rapid in the surface and subsurface layers and moderately slow in the subsoil; Ocilla—rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Low
Seasonal high water table: Pelham—apparent, at the surface to a depth of 1 foot from December through April; Ocilla—apparent, at a depth of 1 to 2$^{1}/_{2}$ feet from December through April
Shrink-swell potential: Low
Flooding: Rare
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained, clayey Bethera and loamy Rains soils in slightly lower positions than those of the Pelham soil
- The well drained Bonneau soils on knolls
- The moderately well drained Eunola soils, which do not have thick, sandy surface

and subsurface layers, in slightly higher, more convex positions than those of the Ocilla soil
- Small areas of Ocilla and Pelham soils that are not subject to flooding; in the higher positions

Similar soils
- Scattered areas of soils that are similar to the Ocilla or Pelham soil but have sandy surface and subsurface layers with a combined thickness of more than 40 inches
- Moderately well drained, sandy soils on knolls

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Cropland, pasture, and hayland

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn, cotton, and peanuts
Management concerns: Wetness, nutrient leaching, and droughtiness
Management measures and considerations:
- Installing and maintaining a drainage system that includes open ditches and diversions helps to remove excess water and increases productivity.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass, bahiagrass, and white clover
Management concerns: Wetness, nutrient leaching, and droughtiness
Management measures and considerations:
- Well maintained drainageways and ditches help to remove excess water.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited to loblolly pine and hardwoods
Productivity class: High for loblolly pine
Management concerns: Seedling survival, equipment use, and competition from undesirable plants
Management measures and considerations:
- Restricting the use of standard wheeled and tracked equipment to dry periods helps to prevent rutting and compaction.
- Using equipment that has wide tires or crawler-type equipment and harvesting trees when the soils are moist improve trafficability.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Planting rates can be increased to compensate for the high rate of seedling mortality.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—fair; wetland wildlife—poor

Management concerns: Equipment use and droughtiness
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited
Management concerns: Flooding and wetness
Management measures and considerations:
- Constructing dwellings on elevated, well-compacted fill material helps to minimize damage from the flooding and wetness.
- Installing a subsurface drainage system helps to lower the seasonal high water table.
- Installing the distribution lines on the contour improves the performance of the system.

Septic tank absorption fields
Suitability: Unsuited
Management concerns: Wetness and restricted permeability
Management measures and considerations:
- This map unit is difficult to manage for septic tank absorption fields because the dominant soils have a seasonal high water table within a depth of 2 feet.
- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table improves the performance of the system.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Flooding and wetness
Management measures and considerations:
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness.
- Well-compacted fill material can be used as a road base to elevate roads above the flooding.

Interpretive Groups

Land capability classification: Pelham—4w; Ocilla—3w
Prime farmland status: Not prime farmland
Hydric soil status: Pelham—hydric; Ocilla—not hydric

Pt—Pits, borrow

Setting

Landform: Ridges, hillslopes, and terraces
Landform position: Summits, side slopes, and interfluves

Shape of areas: Rectangular or horseshoe
Size of areas: 5 to 20 acres

Composition

Pits: 95 percent
Dissimilar soils: 5 percent

This map unit consists of open excavations from which the original soil and underlying material have been removed for use at another location. Typically, the remaining material consists of strata of sand, gravel, and mixed earthy materials. No typical pedon has been selected.

Properties and Qualities

Depth class: Variable
Drainage class: Variable
Permeability: Variable
Available water capacity: Variable
Depth to seasonal high water table: Variable
Shrink-swell potential: Variable
Flooding: None or rare
Content of organic matter in the surface layer: Very low
Natural fertility: Low
Depth to bedrock: Variable
Other distinctive properties: Discontinuous layers, streaks, or pockets of variable texture

Minor Components

Dissimilar soils
- Intermittently ponded Fluvaquents in small depressions
- Greenville, Lucy, Luverne, Nankin, Orangeburg, and Springhill soils near the edges of mapped areas

Land Use

Dominant uses: Source of sand, gravel, clay, and fill material
Other uses: Unsuited to most other uses

Extensive reclamation efforts are required to make areas of this unit suitable for use as cropland, pasture, hayland, forestland, or homesites or to support wildlife habitat. Onsite investigation and testing are needed to determine the suitability of areas of this unit for any use.

Interpretive Groups

Land capability classification: 8s
Prime farmland status: Not prime farmland
Hydric soil status: Pits—not hydric

RbA—Rains-Bethera complex, 0 to 1 percent slopes, occasionally flooded

Setting

Landform: Low terraces
Landform position: Rains—flat and slightly concave positions; Bethera—flats and concave swales
Shape of areas: Oblong
Size of areas: 20 to 300 acres

Composition

Rains and similar soils: 55 percent
Bethera and similar soils: 35 percent
Dissimilar soils: 10 percent

Typical Profiles

Rains
Surface layer:
0 to 4 inches—dark gray fine sandy loam

Subsurface layer:
4 to 8 inches—gray fine sandy loam that has brownish mottles

Subsoil:
8 to 35 inches—gray sandy clay loam that has brownish and reddish mottles
35 to 80 inches—gray sandy clay that has brownish and reddish mottles

Bethera
Surface layer:
0 to 4 inches—very dark gray loam
4 to 8 inches—dark gray loam

Subsoil:
8 to 20 inches—grayish brown clay that has brownish mottles
20 to 80 inches—gray clay that has brownish and reddish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Rains—moderately slow; Bethera—slow
Available water capacity: High
Seasonal high water table: Apparent, at the surface to a depth of 1 foot from December through April
Shrink-swell potential: Rains—low; Bethera—moderate
Flooding: Occasional for brief periods from December through April
Content of organic matter in the surface layer: Medium
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The well drained Bonneau and moderately well drained Eunola soils on knolls
- The poorly drained Kinston and somewhat poorly drained Mantachie soils on narrow flood plains
- The sandy, somewhat poorly drained Ocilla and poorly drained Pelham soils on low knolls

Similar soils
- Small areas of Bethera and Rains soils that are subject to rare flooding; in the higher positions
- Scattered areas of soils that are similar to the Rains soil but have a lower content of clay in the lower part of the subsoil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Poorly suited
Commonly grown crops: Soybeans and grain sorghum
Management concerns: Flooding and wetness
Management measures and considerations:
- This map unit is difficult to manage for crop production because of the hazard of flooding during the growing season.
- Installing and maintaining a drainage system that includes open ditches, perforated tile, or land shaping helps to overcome the wetness and increases productivity.
- Restricting tillage to periods when the soils are dry minimizes clodding and crusting.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Poorly suited
Commonly grown crops: Bahiagrass, common bermudagrass, and white clover
Management concerns: Flooding and wetness
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, livestock and hay may be damaged during any time of the year.
- Well maintained drainageways and ditches help to remove excess water.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited
Productivity class: Very high for loblolly pine and hardwoods
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- Reforestation by managing for natural regeneration of hardwoods or by establishing loblolly pine plantations for pulpwood should be considered.
- Restricting the use of standard wheeled and tracked equipment to dry periods helps to prevent rutting and compaction.
- Planting seedlings on raised beds helps to establish the seedlings and increases the seedling survival rate (fig. 9).
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—fair; wetland wildlife—good
Management concerns: Flooding, equipment use, and wetness
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

Figure 9.—An area of Rains-Bethera complex, 0 to 1 percent slopes, occasionally flooded, that has been clear-cut, prepared, and bedded in preparation for planting loblolly pine. Planting on raised beds is a common management practice in areas of these poorly drained soils.

- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Unsuited
Management concerns: Flooding and wetness
Management measures and considerations:
- This map unit is very limited as a site for dwellings because of the flooding and wetness. A site that has better suited soils should be selected.

Septic tank absorption fields
Suitability: Unsuited
Management concerns: Flooding, wetness, and restricted permeability
Management measures and considerations:
- This map unit is difficult to manage for septic tank absorption fields because of the flooding and because the dominant soils have a seasonal high water table within a depth of 1 foot.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Flooding, wetness, and low strength
Management measures and considerations:
- Constructing roads on raised, well-compacted fill material helps to overcome the flooding, the wetness, and the low strength of the natural soil material.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.

Interpretive Groups

Land capability classification: 4w
Prime farmland status: Not prime farmland
Hydric soil status: Rains and Bethera—hydric

ReA—Red Bay fine sandy loam, 0 to 2 percent slopes

Setting

Landform: Ridges
Landform position: Summits
Shape of areas: Oblong
Size of areas: 5 to 50 acres

Composition

Red Bay and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 8 inches—reddish brown fine sandy loam

Subsoil:
8 to 83 inches—dark red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of the clayey Faceville and Greenville soils
- Red Bay soils that have slopes of more than 2 percent
- The poorly drained Rains soils in shallow depressions

Similar soils
- Orangeburg soils, which do not have a dark red or dark reddish brown subsoil, on knolls
- Scattered areas of soils that are similar to the Red Bay soil but have a lower content of clay in the lower part of the subsoil
- Scattered areas of soils that are similar to the Red Bay soil but have a slightly higher content of clay in the upper part of the subsoil

Land Use

Dominant uses: Cropland, pasture, hayland, and homesites
Other uses: Forestland and wildlife habitat

Cropland
Suitability: Well suited
Commonly grown crops: Corn, cotton, peanuts, soybeans, small grains, and truck crops
Management concerns: No significant limitations affect management of cropland.
Management measures and considerations:
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland

Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: No significant limitations affect management of pasture and hayland.
Management measures and considerations:

- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland

Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: No significant limitations affect management of forestland.

Wildlife habitat

Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: No significant limitations affect management for wildlife habitat.
Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields

Suitability: Well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets

Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 1
Prime farmland status: Prime farmland
Hydric soil status: Red Bay—not hydric

ReB—Red Bay fine sandy loam, 2 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Shoulder slopes and backslopes
Shape of areas: Irregular
Size of areas: 5 to 50 acres

Composition

Red Bay and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 8 inches—reddish brown fine sandy loam

Subsoil:
8 to 83 inches—dark red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of the clayey Faceville and Greenville soils
- Red Bay soils that have slopes of less than 2 percent or more than 5 percent
- The poorly drained Rains soils in shallow depressions

Similar soils
- Orangeburg soils, which do not have a dark red or dark reddish brown subsoil, on knolls and shoulder slopes
- Scattered areas of Red Bay soils that have a surface layer of sandy clay loam
- Scattered areas of soils that are similar to the Red Bay soil but have a lower content of clay in the lower part of the subsoil
- Scattered areas of soils that are similar to the Red Bay soil but have a slightly higher content of clay in the upper part of the subsoil

Land Use

Dominant uses: Cropland, pasture, hayland, and homesites
Other uses: Forestland and wildlife habitat

Cropland
Suitability: Well suited
Commonly grown crops: Corn, cotton, peanuts, soybeans, and small grains
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass

Management concerns: No significant limitations affect management of pasture and hayland.
Management measures and considerations:
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: No significant limitations affect management of forestland.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: No significant limitations affect management for wildlife habitat.
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 2e
Prime farmland status: Prime farmland
Hydric soil status: Red Bay—not hydric

SmD—Smithdale sandy loam, 8 to 15 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes and footslopes
Shape of areas: Irregular
Size of areas: 10 to 300 acres

Composition

Smithdale and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 6 inches—dark grayish brown sandy loam

Subsoil:
6 to 11 inches—yellowish red sandy loam
11 to 41 inches—red sandy clay loam
41 to 72 inches—red sandy loam that has thin streaks of brownish sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Lucy and Troup soils on summits of narrow ridges and on the lower parts of slopes
- The clayey Luverne soils on the lower parts of slopes
- Smithdale soils that have slopes of less than 8 percent or more than 15 percent

Similar soils
- Scattered areas of soils that are similar to the Smithdale soil but have a lower content of clay in the upper part of the subsoil
- Scattered areas of Smithdale soils that have a surface layer of loamy sand

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn, cotton, soybeans, and truck crops
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Terraces and diversions, contour farming, no-till planting, crop residue management, stripcropping, and a rotation that includes soil conserving crops reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Cultivation should be restricted to the less sloping areas.

- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: No significant limitations affect management of forestland.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Equipment use and erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Structures can be designed to conform to the natural slope.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.

Septic tank absorption fields
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Installing the distribution lines on the contour improves the performance of the system.

Local roads and streets
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Smithdale—not hydric

SpC2—Springhill sandy loam, 5 to 8 percent slopes, eroded

Setting

Landform: Hillslopes
Landform position: Backslopes, shoulder slopes, and footslopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Springhill and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 6 inches—brown sandy loam

Subsoil:
6 to 50 inches—red sandy clay loam
50 to 80 inches—red sandy loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: Moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Cowarts soils, which have a brownish subsoil, in positions similar to those of the Springhill soil
- The sandy Lucy soils on knolls and shoulder slopes
- The clayey Nankin soils on the lower parts of slopes
- Springhill soils that have slopes of less than 5 percent or more than 8 percent

Similar soils
- Orangeburg soils, which have a higher content of clay in the lower part of the subsoil than the Springhill soil, on summits of narrow ridges
- Scattered areas of Springhill soils that have a surface layer of loamy sand or sandy clay loam
- Moderately well drained, loamy soils on the lower parts of slopes and near the heads of drains

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland
Suitability: Suited
Commonly grown crops: Corn, cotton, peanuts, and soybeans
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- The complexity of the slope limits the use of terraces in narrow areas.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Pasture—well suited; hayland—suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and slope
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: No significant limitations affect management of forestland.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 3e
Prime farmland status: Prime farmland
Hydric soil status: Springhill—not hydric

SpD2—Springhill sandy loam, 8 to 15 percent slopes, eroded

Setting

Landform: Hillslopes
Landform position: Backslopes and footslopes
Shape of areas: Irregular
Size of areas: 10 to 300 acres

Composition

Springhill and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 6 inches—brown sandy loam

Subsoil:
6 to 50 inches—red sandy clay loam
50 to 80 inches—red sandy loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: Moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Cowarts soils, which have a brownish subsoil, in positions similar to those of the Springhill soil
- The sandy Lucy and Troup soils on knolls and shoulder slopes
- The clayey Nankin soils on the lower parts of slopes
- Springhill soils that have slopes of less than 8 percent or more than 15 percent

Similar soils
- Orangeburg soils, which have a higher content of clay in the lower part of the subsoil than the Springhill soil, on summits of narrow ridges

- Scattered areas of Springhill soils that have a surface layer of loamy sand or sandy clay loam
- Moderately well drained, loamy soils on the lower parts of slopes and near the heads of drains

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland

Suitability: Poorly suited
Commonly grown crops: Corn, cotton, soybeans, and truck crops
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Contour farming, conservation tillage, crop residue management, stripcropping, and a sod-based rotation reduce the hazard of further erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Cultivation should be restricted to the less sloping areas.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland

Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of further erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland

Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: No significant limitations affect management of forestland.

Wildlife habitat

Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Equipment use and erodibility
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Suited
Management concerns: Slope

Management measures and considerations:
- Structures can be designed to conform to the natural slope.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of further erosion.

Septic tank absorption fields
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Installing the distribution lines on the contour improves the performance of the system.

Local roads and streets
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Springhill—not hydric

StE2—Sumter-Hannon complex, 12 to 35 percent slopes, eroded

Setting

Landform: Hillslopes
Landform position: Sumter—backslopes and footslopes; Hannon—crests of narrow ridges, shoulder slopes, and saddles
Shape of areas: Irregular
Size of areas: 10 to 60 acres

Composition

Sumter and similar soils: 50 percent
Hannon and similar soils: 35 percent
Dissimilar soils: 15 percent

Typical Profiles

Sumter
Surface layer:
0 to 2 inches—very dark grayish brown clay loam
2 to 5 inches—olive brown clay loam

Subsoil:
5 to 23 inches—light olive brown clay loam and loam

Substratum:
23 to 29 inches—light yellowish brown sandy clay loam
29 to 80 inches—light brownish gray chalk that has thin strata of marl and indurated limestone

Hannon
Surface layer:
0 to 3 inches—very dark gray clay

Subsoil:
3 to 12 inches—yellowish red clay
12 to 22 inches—strong brown clay and light olive brown silty clay having brownish and reddish mottles
22 to 27 inches—light olive brown clay loam that has brownish mottles

Substratum:
27 to 34 inches—light yellowish brown clay loam that has masses of calcium carbonate
34 to 61 inches—light olive brown and brownish yellow sandy clay loam that has masses of calcium carbonate
61 to 80 inches—light olive brown loam that has masses of calcium carbonate

Soil Properties and Qualities

Depth class: Sumter—moderately deep; Hannon—very deep
Drainage class: Sumter—well drained; Hannon—moderately well drained
Permeability: Sumter—slow; Hannon—very slow
Available water capacity: Moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Sumter—moderate; Hannon—very high
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Medium
Depth to bedrock: Sumter—20 to 40 inches; Hannon—more than 60 inches

Minor Components

Dissimilar soils
- The very deep, clayey Brantley soils on summits and shoulder slopes of narrow ridges
- The somewhat poorly drained Leeper and moderately well drained Marietta soils on narrow flood plains
- Scattered, small areas of limestone outcrop
- Sumter and Hannon soils that have slopes of less than 12 percent or more than 35 percent

Similar soils
- Scattered areas of soils that are similar to the Hannon soil but do not have carbonates within a depth of 30 inches
- Scattered areas of soils that are similar to the Sumter soil but have chalk bedrock at a depth of more than 40 inches

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Cropland, pasture, and hayland

Cropland
Suitability: Unsuited
Management concerns: This map unit is very limited for crop production because of the slope. A site that has better suited soils should be selected.

Pasture and hayland
Suitability: Poorly suited to pasture; unsuited to hayland
Commonly grown crops: Tall fescue, dallisgrass, and Johnsongrass
Management concerns: Erodibility, equipment use, and rooting depth
Management measures and considerations:
- This map unit is difficult to manage economically for pasture and hayland because of the slope and the shallow rooting depth of the Sumter soil.

- In some areas, large stones on the surface can interfere with the use of equipment. Removing the larger stones and limiting equipment use to the larger open areas minimize wear on the equipment.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting improve the pasture and increase productivity.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.

Forestland

Suitability: Poorly suited

Productivity class: Sumter—moderate for eastern redcedar; Hannon—high for loblolly pine (fig. 10)

Management concerns: Erodibility, equipment use, seedling survival, and competition from undesirable species

Management measures and considerations:

- Areas of the Sumter soil are unsuited to pine production because the soil is too alkaline. Natural regeneration of hardwoods should be considered.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the Hannon soil.
- Restricting logging during wet periods minimizes rutting and the root damage caused by compaction.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control further erosion and the siltation of streams.

Figure 10.—An area of Sumter-Hannon complex, 12 to 35 percent slopes, eroded. Eastern redcedar and various grasses and forbs make up the dominant plant cover in areas of Sumter soils, which are alkaline. Loblolly pine and mixed hardwoods make up the dominant plant cover in areas of the Hannon soils, which are acid in the upper part of the solum.

- Maintaining litter on the surface increases the water infiltration rate and reduces the seedling mortality rate.
- Planting seedlings on raised beds and increasing the number of seedlings planted help to compensate for the high rate of seedling mortality.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

Wildlife habitat

Potential of the Sumter soil to support habitat for: Openland wildlife—good; forestland wildlife—fair; wetland wildlife—very poor

Potential of the Hannon soil to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor

Management concerns: Equipment use, tilth, and erodibility

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Poorly suited

Management concerns: Sumter—slope, depth to rock, and shrink-swell potential; Hannon—slope and shrink-swell potential

Management measures and considerations:

- Structures can be designed to conform to the natural slope or can be built in the less sloping areas.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Large stones and boulders may be encountered during excavation.
- The soft bedrock underlying the Sumter soil does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.

Septic tank absorption fields

Suitability: Unsuited

Management concerns: Sumter—slope and depth to rock; Hannon—slope and restricted permeability

Management measures and considerations:

- This map unit is very limited as a site for septic tank absorption fields.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets

Suitability: Poorly suited

Management concerns: Sumter—slope, depth to rock, and shrink-swell potential; Hannon—slope, shrink-swell potential, and low strength

Management measures and considerations:

- The soft bedrock underlying the Sumter soil does not require special equipment for

excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.
- Large stones and boulders may be encountered during excavation.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material in areas of the Hannon soil.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Sumter and Hannon—not hydric

TaB—Troup loamy sand, 0 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Summits and shoulder slopes
Shape of areas: Irregular
Size of areas: 10 to 200 acres

Composition

Troup and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 3 inches—brown loamy sand

Subsurface layer:
3 to 12 inches—yellowish brown loamy sand
12 to 50 inches—strong brown loamy sand

Subsoil:
50 to 60 inches—yellowish red sandy clay loam
60 to 80 inches—red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Somewhat excessively drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Low
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Alaga soils, which do not have loamy subsoil layers within a depth of 80 inches

- Blanton and Bonifay soils, which have a seasonal high water table at a depth of 4 to 6 feet, on the lower parts of slopes
- Lucy soils, which have loamy subsoil layers within a depth of 20 to 40 inches, on shoulder slopes
- The clayey Nankin and loamy Springhill soils in saddles
- Troup soils that have slopes of more than 5 percent

Similar soils
- Scattered areas of Troup soils that have surface and subsurface layers of loamy fine sand or sand
- Scattered areas of soils that are similar to the Troup soil but have a brownish subsoil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Cropland, pasture, and hayland

Cropland
Suitability: Poorly suited
Commonly grown crops: Peanuts, truck crops, and watermelons
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited
Productivity class: High for loblolly pine
Management concerns: Seedling survival
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor
Management concerns: Droughtiness and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of

vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 3s
Prime farmland status: Not prime farmland
Hydric soil status: Troup—not hydric

TaC—Troup loamy sand, 5 to 8 percent slopes

Setting

Landform: Ridges and hillslopes
Landform position: Backslopes, shoulder slopes, and footslopes
Shape of areas: Irregular
Size of areas: 5 to 50 acres

Composition

Troup and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 3 inches—brown loamy sand

Subsurface layer:
3 to 12 inches—yellowish brown loamy sand
12 to 50 inches—strong brown loamy sand

Subsoil:
50 to 60 inches—yellowish red sandy clay loam
60 to 80 inches—red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Somewhat excessively drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Low

Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils

- Scattered areas of Alaga soils, which do not have loamy subsoil layers within a depth of 80 inches
- Blanton and Bonifay soils, which have a seasonal high water table at a depth of 4 to 6 feet, on the lower parts of slopes
- Lucy soils, which have loamy subsoil layers within a depth of 20 to 40 inches, on shoulder slopes
- The clayey Nankin and loamy Springhill soils on shoulder slopes and in saddles
- Troup soils that have slopes of less than 5 percent or more than 8 percent

Similar soils

- Scattered areas of Troup soils that have surface and subsurface layers of loamy fine sand or sand
- Scattered areas of soils that are similar to the Troup soil but have a brownish subsoil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland
Suitability: Poorly suited
Commonly grown crops: Peanuts, truck crops, and watermelons
Management concerns: Droughtiness, erodibility, and nutrient leaching
Management measures and considerations:

- Conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increase available water capacity and improve fertility.
- Stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:

- Using supplemental irrigation and planting varieties that are adapted to droughty conditions increase productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited

Productivity class: High for loblolly pine
Management concerns: Seedling survival
Management measures and considerations:
• Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
• Using improved varieties of loblolly pine or longleaf pine increases productivity.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor
Management concerns: Droughtiness and equipment use
Management measures and considerations:
• Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
• Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
• Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Well suited
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Well suited
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets
Suitability: Well suited
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability classification: 4s
Prime farmland status: Not prime farmland
Hydric soil status: Troup—not hydric

TaD—Troup loamy sand, 8 to 15 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes and footslopes
Shape of areas: Irregular
Size of areas: 40 to 300 acres

Composition

Troup and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 3 inches—brown loamy sand

Subsurface layer:
3 to 12 inches—yellowish brown loamy sand
12 to 50 inches—strong brown loamy sand

Subsoil:
50 to 60 inches—yellowish red sandy clay loam
60 to 80 inches—red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Somewhat excessively drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Low
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Alaga soils, which do not have loamy subsoil layers within a depth of 80 inches
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Blanton and Bonifay soils, which have a seasonal high water table at a depth of 4 to 6 feet, on the lower parts of slopes
- Lucy soils, which have loamy subsoil layers within a depth of 20 to 40 inches, on shoulder slopes
- The clayey Nankin and loamy Springhill soils on shoulder slopes and in saddles
- Troup soils that have slopes of less than 8 percent or more than 15 percent

Similar soils
- Scattered areas of Troup soils that have surface and subsurface layers of loamy fine sand or sand
- Scattered areas of soils that are similar to the Troup soil but have a brownish subsoil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Poorly suited
Management concerns: Erodibility, equipment use, droughtiness, and nutrient leaching
Management measures and considerations:
- This map unit is difficult to manage for crop production because the slope and sandy textures limit the use of equipment.
- Contour tillage, no-till planting, crop residue management, stripcropping, and a rotation that includes soil conserving crops reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility, equipment use, droughtiness, and nutrient leaching
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.

Forestland
Suitability: Suited
Productivity class: High for loblolly pine
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Using tracked or low-pressure ground equipment helps to prevent rutting and the damage caused to tree roots by compaction.
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor
Management concerns: Erodibility, equipment use, and droughtiness
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Structures can be designed to conform to the natural slope or can be built in the less sloping areas.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.

Septic tank absorption fields
Suitability: Suited

Management concerns: Slope
Management measures and considerations:
- Installing the distribution lines on the contour improves the performance of the system.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

Interpretive Groups

Land capability classification: 6s
Prime farmland status: Not prime farmland
Hydric soil status: Troup—not hydric

TgD—Troup-Alaga complex, 5 to 15 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes and footslopes
Shape of areas: Irregular
Size of areas: 10 to 300 acres

Composition

Troup and similar soils: 50 percent
Alaga and similar soils: 40
Dissimilar soils: 10 percent

Typical Profiles

Troup
Surface layer:
0 to 3 inches—brown loamy sand

Subsurface layer:
3 to 12 inches—yellowish brown loamy sand
12 to 50 inches—strong brown loamy sand

Subsoil:
50 to 60 inches—yellowish red sandy clay loam
60 to 80 inches—red sandy clay loam

Alaga
Surface layer:
0 to 6 inches—dark brown loamy sand

Substratum:
6 to 48 inches—strong brown loamy sand
48 to 96 inches—strong brown sand
96 to 114 inches—strong brown loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Somewhat excessively drained
Permeability: Troup—rapid in the surface and subsurface layers and moderate in the subsoil; Alaga—rapid
Available water capacity: Low
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils

- Alaga and Troup soils that have slopes of less than 5 percent or more than 15 percent
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Blanton and Bonifay soils, which have a seasonal high water table at a depth of 4 to 6 feet, on the lower parts of slopes
- Lucy soils, which have loamy subsoil layers within a depth of 20 to 40 inches, on shoulder slopes
- The clayey Luverne and loamy Smithdale soils on shoulder slopes and in saddles

Similar soils

- Scattered areas of Troup soils that have surface and subsurface layers of loamy fine sand or sand
- Scattered areas of soils that are similar to the Troup soil but have a brownish subsoil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland

Suitability: Poorly suited
Management concerns: Erodibility, equipment use, droughtiness, and nutrient leaching
Management measures and considerations:

- This map unit is difficult to manage for crop production because the slope and sandy textures limit the use of equipment.
- Contour tillage, no-till planting, crop residue management, stripcropping, and a rotation that includes soil conserving crops reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland

Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility, equipment use, droughtiness, and nutrient leaching
Management measures and considerations:

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.

- The slope may limit equipment use in the steeper areas when hay is harvested.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.

Forestland

Suitability: Suited

Productivity class: Troup—high for loblolly pine; Alaga—moderate for loblolly pine and sand pine

Management concerns: Equipment use, seedling survival, and competition from undesirable plants

Management measures and considerations:

- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Using tracked or low-pressure ground equipment helps to prevent rutting and the damage caused to tree roots by compaction.
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat

Potential to support habitat for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor

Management concerns: Erodibility, equipment use, and droughtiness

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Suited

Management concerns: Slope

Management measures and considerations:

- Structures can be designed to conform to the natural slope or can be built in the less sloping areas.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.

Septic tank absorption fields

Suitability: Suited

Management concerns: Troup—slope; Alaga—slope and poor filtering capacity

Management measures and considerations:

- Installing the distribution lines on the contour improves the performance of the system.
- The Alaga soil readily absorbs, but does not adequately filter, effluent. Measures that improve the filtering capacity should be considered.

- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soils and reduces the hazard of erosion.

Interpretive Groups

Land capability classification: 6s
Prime farmland status: Not prime farmland
Hydric soil status: Alaga and Troup—not hydric

ToE—Troup-Lucy-Luverne complex, 15 to 35 percent slopes

Settings

Landform: Hillslopes
Landform position: Troup and Lucy—nose slopes, shoulder slopes, and footslopes; Luverne—backslopes
Shape of areas: Irregular
Size of areas: 10 to 300 acres

Composition

Troup and similar soils: 40 percent
Lucy and similar soils: 30 percent
Luverne and similar soils: 20 percent
Dissimilar soils: 10 percent

Typical Profiles

Troup
Surface layer:
0 to 3 inches—brown loamy sand

Subsurface layer:
3 to 12 inches—yellowish brown loamy sand
12 to 50 inches—strong brown loamy sand

Subsoil:
50 to 60 inches—yellowish red sandy clay loam
60 to 80 inches—red sandy clay loam

Lucy
Surface layer:
0 to 6 inches—yellowish brown loamy sand

Subsurface layer:
6 to 25 inches—light yellowish brown and yellowish brown loamy sand

Subsoil:
25 to 32 inches—yellowish red sandy loam
32 to 41 inches—yellowish red sandy clay loam
41 to 80 inches—red sandy clay loam

Luverne
Surface layer:
0 to 4 inches—dark grayish brown sandy loam
4 to 7 inches—yellowish brown sandy loam

Subsoil:
7 to 16 inches—yellowish red sandy clay
16 to 21 inches—red sandy clay that has brownish mottles
21 to 34 inches—yellowish red sandy clay loam that has yellowish mottles
34 to 45 inches—yellowish red sandy loam that has reddish and grayish mottles

Substratum:
45 to 60 inches—strong brown sandy loam that has reddish mottles
60 to 82 inches—stratified strong brown sandy loam and gray loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Troup—somewhat excessively drained; Lucy and Luverne—well drained
Permeability: Troup and Lucy—rapid in the surface and subsurface layers and moderate in the subsoil; Luverne—moderately slow
Available water capacity: Troup and Lucy—low; Luverne—high
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Troup and Lucy—low; Luverne—moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Scattered areas of Alaga soils, which do not have loamy subsoil layers within a depth of 80 inches
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Blanton soils, which have a seasonal high water table at a depth of 4 to 5 feet, on the lower parts of slopes
- The loamy Smithdale soils on shoulder slopes and in saddles
- Troup, Lucy, and Luverne soils that have slopes of less than 15 percent or more than 35 percent

Similar soils
- Scattered areas of Lucy and Troup soils that have surface and subsurface layers of loamy fine sand or sand
- Scattered areas of soils that are similar to the Lucy and Troup soils but have a brownish subsoil
- Scattered areas of well drained, clayey soils that have less clay in the substratum than the Luverne soil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Unsuited
Management concerns: This map unit is very limited for crop production because of the slope and droughtiness. A site that has better suited soils should be selected.

Pasture and hayland

Suitability: Poorly suited to pasture; unsuited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility, droughtiness, and equipment use
Management measures and considerations:

- The slope may limit equipment use in the steeper areas.
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland

Suitability: Suited
Productivity class: Troup and Lucy—high for loblolly pine; Luverne—very high for loblolly pine
Management concerns: Troup and Lucy—seedling survival; Luverne—erodibility and competition from unwanted plants
Management measures and considerations:

- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate in areas of the Troup and Lucy soils.
- Logging when the soils have the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat

Potential of the Troup soil to support habitat for: Openland wildlife and forestland wildlife—poor; wetland wildlife—very poor
Potential of the Lucy and Luverne soils to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility, droughtiness, and equipment use
Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited
Management concerns: Troup and Lucy—slope; Luverne—slope and shrink-swell potential
Management measures and considerations:
- Designing structures to conform to the natural slope helps to overcome the slope limitation.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling in areas of the Luverne soil.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Troup and Lucy—slope; Luverne—restricted permeability and slope
Management measures and considerations:
- Installing the distribution lines on the contour improves the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls in areas of the Luverne soil.
- Increasing the size of the absorption field improves the performance of the system in areas of the Luverne soil.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Troup and Lucy—slope; Luverne—slope, low strength, and shrink-swell potential
Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material in areas of the Luverne soil.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soils and reduces the hazard of erosion.

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Troup, Lucy, and Luverne—not hydric

TrD—Troup-Luverne complex, 5 to 15 percent slopes

Setting

Landform: Hillslopes
Landform position: Troup—shoulder slopes and footslopes; Luverne—backslopes
Shape of areas: Irregular
Size of areas: 40 to 300 acres

Composition

Troup and similar soils: 55 percent
Luverne and similar soils: 35 percent
Dissimilar soils: 10 percent

Typical Profiles

Troup
Surface layer:
0 to 3 inches—brown loamy sand

Subsurface layer:
3 to 12 inches—yellowish brown loamy sand
12 to 50 inches—strong brown loamy sand

Subsoil:
50 to 60 inches—yellowish red sandy clay loam
60 to 80 inches—red sandy clay loam

Luverne
Surface layer:
0 to 4 inches—dark grayish brown sandy loam
4 to 7 inches—yellowish brown sandy loam

Subsoil:
7 to 16 inches—yellowish red sandy clay
16 to 21 inches—red sandy clay that has brownish mottles
21 to 34 inches—yellowish red sandy clay loam that has yellowish mottles
34 to 45 inches—yellowish red sandy loam that has reddish and grayish mottles

Substratum:
45 to 60 inches—strong brown sandy loam that has reddish mottles
60 to 82 inches—stratified strong brown sandy loam and gray loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Troup—somewhat excessively drained; Luverne—well drained
Permeability: Troup—rapid in the surface and subsurface layers and moderate in the subsoil; Luverne—moderately slow
Available water capacity: Troup—low; Luverne—high
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Troup—low; Luverne—moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Blanton soils, which have a seasonal high water table at a depth of 4 to 5 feet, on the lower parts of slopes
- The clayey Nankin soils, which do not have thick, sandy surface and subsurface layers and have a kaolinitic clay mineralogy, in positions similar to those of the Luverne soil
- The loamy Smithdale and Springhill soils on shoulder slopes
- Troup and Luverne soils that have slopes of less than 5 percent or more than 15 percent

Similar soils

- Scattered areas of Troup soils that have surface and subsurface layers of loamy fine sand or sand
- Scattered areas of soils that are similar to the Troup soil but have a brownish subsoil
- Scattered areas of well drained, clayey soils that have less clay in the substratum than the Luverne soil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Poorly suited
Management concerns: Erodibility, equipment use, droughtiness, and nutrient leaching
Management measures and considerations:

- This map unit is difficult to manage for crop production because the slope limits the use of equipment.
- Contour tillage, no-till planting, crop residue management, stripcropping, and a rotation that includes soil conserving crops reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited to pasture; poorly suited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility, equipment use, droughtiness, and nutrient leaching
Management measures and considerations:

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.

Forestland
Suitability: Suited
Productivity class: Troup—high for loblolly pine; Luverne—very high for loblolly pine
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:

- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Using tracked or low-pressure ground equipment helps to prevent rutting and the damage caused to tree roots by compaction.
- Planting high-quality seedlings in a shallow furrow increases seedling survival rate in areas of the Troup soil.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat

Potential of the Troup soil to support habitat for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor

Potential of the Luverne soil to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor

Management concerns: Erodibility, equipment use, and droughtiness

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Suited

Management concerns: Troup—slope; Luverne—slope and shrink-swell potential

Management measures and considerations:

- Designing structures to conform to the natural slope helps to overcome the slope limitation.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling in areas of the Luverne soil.

Septic tank absorption fields

Suitability: Suited

Management concerns: Troup—slope; Luverne—restricted permeability and slope

Management measures and considerations:

- Installing the distribution lines on the contour improves the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls in areas of the Luverne soil.
- Increasing the size of the absorption field improves the performance of the system in areas of the Luverne soil.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets

Suitability: Suited

Management concerns: Troup—slope; Luverne—slope, low strength, and shrink-swell potential

Management measures and considerations:

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material in areas of the Luverne soil.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soils and reduces the hazard of erosion.

Interpretive Groups

Land capability classification: Troup—6s; Luverne—6e
Prime farmland status: Not prime farmland
Hydric soil status: Troup and Luverne—not hydric

TsE—Troup-Luverne-Smithdale complex, 15 to 35 percent slopes

Setting

Landform: Hillslopes
Landform position: Troup—nose slopes, shoulder slopes, and footslopes; Luverne and Smithdale—backslopes
Shape of areas: Irregular
Size of areas: 20 to 500 acres

Composition

Troup and similar soils: 35 percent
Luverne and similar soils: 30 percent
Smithdale and similar soils: 25 percent
Dissimilar soils: 10 percent

Typical Profiles

Troup
Surface layer:
0 to 3 inches—brown loamy sand

Subsurface layer:
3 to 12 inches—yellowish brown loamy sand
12 to 50 inches—strong brown loamy sand

Subsoil:
50 to 60 inches—yellowish red sandy clay loam
60 to 80 inches—red sandy clay loam

Luverne
Surface layer:
0 to 4 inches—dark grayish brown sandy loam
4 to 7 inches—yellowish brown sandy loam

Subsoil:
7 to 16 inches—yellowish red sandy clay
16 to 21 inches—red sandy clay that has brownish mottles
21 to 34 inches—yellowish red sandy clay loam that has yellowish mottles
34 to 45 inches—yellowish red sandy loam that has reddish and grayish mottles

Substratum:
45 to 60 inches—strong brown sandy loam that has reddish mottles
60 to 82 inches—stratified strong brown sandy loam and gray loamy sand

Smithdale
Surface layer:
0 to 6 inches—dark grayish brown sandy loam

Subsurface layer:
6 to 11 inches—yellowish red sandy loam

Subsoil:
11 to 41 inches—red sandy clay loam
41 to 72 inches—red sandy loam that has thin streaks of brownish sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Troup—somewhat excessively drained; Luverne and Smithdale—well drained
Permeability: Troup—rapid in the surface and subsurface layers and moderate in the subsoil; Luverne—moderately slow; Smithdale—moderate
Available water capacity: Troup—low; Luverne and Smithdale—high
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Troup and Smithdale—low; Luverne—moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Blanton soils, which have a seasonal high water table at a depth of 4 to 5 feet, on the lower parts of slopes
- Lucy soils, which have loamy subsoil layers within a depth of 20 to 40 inches, on shoulder slopes and summits of narrow ridges
- The loamy Orangeburg soils, which do not have thick, sandy surface and subsurface layers, on summits of narrow ridges
- Troup, Luverne, and Smithdale soils that have slopes of less than 15 percent or more than 35 percent

Similar soils
- Scattered areas of Troup soils that have surface and subsurface layers of loamy fine sand or sand
- Scattered areas of soils that are similar to the Troup soil but have a brownish subsoil
- Scattered areas of well drained, clayey soils that have less clay in the substratum than the Luverne soil

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Unsuited
Management concerns: This map unit is very limited for crop production because of the slope and droughtiness. A site that has better suited soils should be selected.

Pasture and hayland
Suitability: Poorly suited to pasture; unsuited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility, droughtiness, and equipment use
Management measures and considerations:
- The slope may limit equipment use in the steeper areas.
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Suited
Productivity class: Troup—high for loblolly pine; Luverne and Smithdale—very high for loblolly pine
Management concerns: Troup—seedling survival; Luverne—equipment use, erodibility, and competition from unwanted plants; Smithdale—equipment use and erodibility
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate in areas of the Troup soil.
- Logging when the soils have the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential of the Troup soil to support habitat for: Openland wildlife and forestland wildlife—poor; wetland wildlife—very poor
Potential of the Luverne and Smithdale soils to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility, droughtiness, and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Poorly suited
Management concerns: Troup and Smithdale—slope; Luverne—slope and shrink-swell potential
Management measures and considerations:
- Designing structures to conform to the natural slope helps to overcome the slope limitation.

- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling in areas of the Luverne soil.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Troup and Smithdale—slope; Luverne—restricted permeability and slope
Management measures and considerations:
- Increasing the size of the absorption field and installing the distribution lines on the contour improve the performance of the system in areas of the Luverne soil.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls in areas of the Luverne soil.
- Installing the distribution lines on the contour improves the performance of the system in areas of the Troup and Smithdale soils.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Troup and Smithdale—slope; Luverne—slope, low strength, and shrink-swell potential
Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material in areas of the Luverne soil.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soils and reduces the hazard of erosion.

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Troup, Luverne, and Smithdale—not hydric

UdC—Udorthents, gently sloping, smooth

Setting

Landform: Ridges and hillslopes
Landform position: Summits, side slopes, and interfluves
Shape of areas: Rectangular
Size of areas: 10 to 100 acres

Composition

Udorthents: 90 percent
Dissimilar soils: 10 percent

This map unit consists of mixed, loamy and clayey material in areas that were strip mined for brown iron ore and then reclaimed. Slopes range from 2 to 8 percent. Most areas have been smoothed to the general land contours that existed before the mining, but no efforts were made to replace the original layers of soil and underlying material. Little of the original soil material, which consisted primarily of Greenville, Luverne, Nankin, and Springhill soils, is recognizable in the soil profile because of mixing during reclamation.

Properties and Qualities

Depth class: Very deep
Drainage class: Variable
Permeability: Variable
Available water capacity: Variable
Depth to seasonal high water table: Variable
Shrink-swell potential: Variable
Flooding: None
Content of organic matter in the surface layer: Variable
Natural fertility: Low
Depth to bedrock: More than 80 inches
Other distinctive properties: Discontinuous layers, streaks, or pockets of variable texture

Minor Components

Dissimilar soils
- Cowarts, Faceville, Greenville, Luverne, Nankin, and Springhill soils near the edges of mapped areas

Land Use

Dominant uses: Pasture, forestland, and wildlife habitat
Other uses: Hayland

Areas of this map unit are not easily managed for crops, pasture, forestland, or wildlife habitat because of the variability in soil properties. Onsite investigation and testing are needed to determine the suitability of areas of this unit for any use.

Interpretive Groups

Land capability classification: 4s
Prime farmland status: Not prime farmland
Hydric soil status: Udorthents—not hydric

UdE—Udorthents, hilly, rough

Setting

Landform: Ridges and hillslopes
Landform position: Summits, side slopes, and interfluves
Shape of areas: Rectangular
Size of areas: 10 to 100 acres

Composition

Udorthents: 90 percent
Dissimilar soils: 10 percent

This map unit consists of mixed, loamy and clayey material in areas that were strip mined for brown iron ore and not reclaimed. Most areas consist of a series of long, narrow, parallel ridges or piles of loamy and clayey material that have a high content of ironstone fragments. Little of the original soil material, which consisted primarily of Greenville, Luverne, Nankin, and Springhill soils, is recognizable in the soil profile because of mixing during mining.

Slopes range from 8 to 35 percent. Deep gullies are common throughout most areas. The soil material is highly variable within a short distance and may be clayey, loamy, or stratified with various textures. The content of ironstone fragments is also highly variable, and the fragments range in size from pebbles to boulders.

Properties and Qualities

Depth class: Very deep
Drainage class: Variable
Permeability: Variable
Available water capacity: Variable
Depth to seasonal high water table: Variable
Shrink-swell potential: Variable
Flooding: None
Content of organic matter in the surface layer: Variable
Natural fertility: Low
Depth to bedrock: More than 80 inches
Other distinctive properties: Discontinuous layers, streaks, or pockets of variable texture

Minor Components

Dissimilar soils

- Cowarts, Faceville, Greenville, Luverne, Nankin, and Springhill soils near the edges of mapped areas

Land Use

Dominant uses: Wildlife habitat
Other uses: Forestland and pasture

Areas of this map unit are generally poorly suited to most agricultural and urban uses and are poorly suited to forestland. The steep, irregular topography and variability of the soils are limitations for most uses. Onsite investigation and testing are needed to determine the suitability of areas of this unit for any use.

Interpretive Groups

Land capability classification: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Udorthents—not hydric

Ur—Urban land

Setting

Landform: Ridges and hillslopes
Landform position: Summits, side slopes, and interfluves
Shape of areas: Rectangular
Size of areas: 5 to 40 acres

Composition

Urban land: 95 percent
Dissimilar soils: 5 percent

Urban land consists mainly of high-density commercial and industrial developments, mostly in the vicinity of Luverne. The original soils have been altered by cutting and filling, shaping and grading, and compacting or have been covered with buildings, concrete, or asphalt.

Minor Components

Dissimilar soils

- Greenville, Luverne, Orangeburg, Red Bay, and Springhill soils near the edges of mapped areas

Land Use

Dominant uses: Residential, commercial, and industrial uses
Other uses: Unsuited to most other uses

Extensive reclamation efforts are required to make areas of this unit suitable for use as cropland, pasture, hayland, woodland, or homesites or to support wildlife habitat. Onsite investigation and testing are needed to determine the suitability of areas of this unit for any use.

Interpretive Groups

Land capability classification: 8s
Prime farmland status: Not prime farmland
Hydric soil status: Urban land—not hydric

W—Water

This map unit consists of areas that in most years are covered with water throughout the year. Areas include rivers, streams, natural or constructed lakes, pits, and ponds.

WmB—Williamsville fine sand, 2 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Summits and shoulder slopes
Shape of areas: Irregular
Size of areas: 20 to 150 acres

Composition

Williamsville and similar soils: 90 percent
Dissimilar soils: 10 percent

Typical Profile

Surface layer:
0 to 6 inches—dark grayish brown fine sand

Subsurface layer:
6 to 11 inches—light yellowish brown fine sand

Subsoil:
11 to 15 inches—strong brown sandy clay loam
15 to 42 inches—red sandy clay that has brownish mottles
42 to 70 inches—red sandy clay loam that has brownish mottles
70 to 80 inches—yellowish red sandy clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Moderate
Flooding: None

Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches
Other distinctive properties: Greenish, glauconitic sand in the subsoil

Minor Components

Dissimilar soils
- The moderately deep Arundel soils on knolls and in saddles
- The sandy Lucy soils on knolls and shoulder slopes
- The loamy Orangeburg soils on knolls
- The loamy Springhill soils on shoulder slopes
- Williamsville soils that have slopes of more than 5 percent

Similar soils
- Scattered areas of Williamsville soils that have a surface layer of sandy loam
- Scattered areas of well drained, clayey soils that have a higher content of clay in the lower part of the subsoil and in the substratum than the Williamsville soil
- Scattered areas of Luverne soils, which do not have fragments of fossil oyster shell and accumulations of glauconitic sand
- Very deep, moderately well drained, clayey soils on the lower parts of slopes and around the heads of drains

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture, hayland, and cropland

Cropland
Suitability: Suited
Commonly grown crops: Corn, cotton, small grains, and truck crops
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods minimize compaction, maintain productivity, and help to keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Equipment use and competition from undesirable plants
Management measures and considerations:
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.

- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat

Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor

Management concerns: Erodibility

Management measures and considerations:

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings

Suitability: Suited

Management concerns: Shrink-swell potential

Management measures and considerations:

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

Septic tank absorption fields

Suitability: Poorly suited

Management concerns: Restricted permeability

Management measures and considerations:

- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets

Suitability: Suited

Management concerns: Low strength; shrink-swell potential

Management measures and considerations:

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a moderate shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.

Interpretive Groups

Land capability classification: 3e

Prime farmland status: Prime farmland

Hydric soil status: Williamsville—not hydric

WmC—Williamsville fine sand, 5 to 8 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes, shoulder slopes, and footslopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Williamsville and similar soils: 85 percent
Dissimilar soils: 15 percent

Typical Profile

Surface layer:
0 to 6 inches—dark grayish brown fine sand

Subsurface layer:
6 to 11 inches—light yellowish brown fine sand

Subsoil:
11 to 15 inches—strong brown sandy clay loam
15 to 42 inches—red sandy clay that has brownish mottles
42 to 70 inches—red sandy clay loam that has brownish mottles
70 to 80 inches—yellowish red sandy clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: High
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Moderate
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches
Other distinctive properties: Greenish, glauconitic sand in the subsoil

Minor Components

Dissimilar soils

- The moderately deep Arundel soils on knolls and in saddles
- The sandy Lucy soils on summits of narrow ridges and on shoulder slopes
- The loamy Orangeburg soils on summits of narrow ridges and on shoulder slopes
- The loamy Springhill soils on shoulder slopes
- Williamsville soils that have slopes of less than 5 percent or more than 8 percent

Similar soils

- Scattered areas of Williamsville soils that have a surface layer of sandy loam
- Scattered areas of well drained, clayey soils that have a higher content of clay in the lower part of the subsoil and in the substratum than the Williamsville soil
- Scattered areas of Luverne soils, which do not have fragments of fossil oyster shell and accumulations of glauconitic sand
- Very deep, moderately well drained, clayey soils on the lower parts of slopes and around the heads of drains

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture and hayland

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn and soybeans
Management concerns: Erodibility
Management measures and considerations:
- Terraces and diversions, stripcropping, contour tillage, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Cultivation should be restricted to the less sloping areas.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Pasture and hayland
Suitability: Suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Fencing livestock away from creeks and streams helps to control erosion of the stream banks and sedimentation of the creeks and streams.
- Applying lime and fertilizer on the basis of soil testing increases the availability of nutrients to plants and maximizes productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Equipment use and competition from undesirable plants
Management measures and considerations:
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Suited
Management concerns: Shrink-swell potential
Management measures and considerations:
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability
Management measures and considerations:
- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods minimizes smearing and sealing of trench walls.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Low strength; shrink-swell potential
Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a moderate shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

Interpretive Groups

Land capability classification: 4e
Prime farmland status: Not prime farmland
Hydric soil status: Williamsville—not hydric

Prime Farmland

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It 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 qualities, 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. It 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 8 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

About 78,000 acres in the survey area, or nearly 20 percent of the total acreage, meets the soil requirements for prime farmland. Scattered areas of this land are throughout the county. Most areas are in the central and southern parts of the county, mainly in general soil map units 3, 5, 6, 8, and 10, which are described under the heading "General Soil Map Units."

A recent trend in land use in some parts of the survey area 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.

The map units in the survey area that are considered prime farmland are listed at the end of this section. This list does not constitute a recommendation for a particular land use. On some soils included in the list, 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. The extent of each listed map unit is shown in table 5. The location is shown on the detailed soil maps. The soil qualities that affect use and management are described under the heading "Detailed Soil Map Units."

The map units that meet the requirements for prime farmland are:

CaA	Casemore loam, 0 to 1 percent slopes, rarely flooded
CmB	Compass loamy sand, 1 to 3 percent slopes
DoA	Dothan sandy loam, 0 to 2 percent slopes
DoB	Dothan sandy loam, 2 to 5 percent slopes

DoC	Dothan sandy loam, 5 to 8 percent slopes
EuA	Eunola sandy loam, 0 to 2 percent slopes, rarely flooded
FaB	Faceville fine sandy loam, 2 to 5 percent slopes
GrA	Greenville sandy loam, 0 to 2 percent slopes
GrB	Greenville sandy loam, 2 to 5 percent slopes
LaA	Leeper-Marietta complex, 0 to 2 percent slopes, occasionally flooded
LvB	Luverne sandy loam, 2 to 5 percent slopes
MbB	Malbis fine sandy loam, 1 to 3 percent slopes
MbC	Malbis fine sandy loam, 5 to 8 percent slopes
OrA	Orangeburg sandy loam, 0 to 2 percent slopes
OrB	Orangeburg sandy loam, 2 to 5 percent slopes
OrC	Orangeburg sandy loam, 5 to 8 percent slopes
ReA	Red Bay fine sandy loam, 0 to 2 percent slopes
ReB	Red Bay fine sandy loam, 2 to 5 percent slopes
WmB	Williamsville fine sand, 2 to 5 percent slopes

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; as rangeland and forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; for agricultural waste management; 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.

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 sand and gravel, 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

Ben L. Moore, resource conservationist, Natural Resources Conservation Service, helped to prepare this section.

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed, the system of land capability classification used by the Natural Resources Conservation Service is explained, and the crops and pasture plants best suited to the soils, including some not commonly grown in the county, are identified.

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 System.

In recent years, the acreage of cropland in Crenshaw County has gradually decreased. Currently, the main cultivated crops are cotton, corn, and peanuts. In 2001, approximately 1,596 acres of cotton, 1,780 acres of peanuts, and 2,338 acres of corn were planted in Crenshaw County (ADAI, 2002). Although the total acreage used for cultivated crops has been decreasing slightly for several years, the total acreage used for hay has increased. About 31,000 tons of hay was harvested from 9,500 acres in 2001 (ADAI, 2002).

The production of food and fiber could be increased in the county. Yields could be increased in cultivated areas if the most current technology were applied. This soil survey can help land users make sound land-management decisions and facilitate the application of crop-production technology.

The field crops that are suited to the soils and climate in Crenshaw County include many crops that are not commonly grown because of economic considerations. Corn, cotton, and peanuts are the main row crops. Grain sorghum, soybeans, vegetable crops, fruit, and similar crops could be grown if economic conditions were favorable. Wheat, rye, and oats are the only close-growing crops planted for grain production, although barley and triticale could be grown. The specialty crops grown in the county include sweet corn, peas, okra, melons, sod, alfalfa, and pecans. Many of the soils in the survey area, including Blanton, Bonifay, Bonneau, Dothan, Fuquay, Malbis, Orangeburg, and Red Bay soils, are well suited to specialty crops. If economic conditions were favorable, a large acreage of these crops could be grown. Information regarding specialty crops can be obtained from the local offices of the Cooperative Extension System or the Natural Resources Conservation Service.

Erosion is a major management concern on about one-half of the cropland and pastureland in the county. In areas where the slope is more than 2 percent, erosion is a hazard. Dothan, Faceville, Greenville, Luverne, Malbis, Orangeburg, and Red Bay soils are examples of sloping soils that are cultivated and are subject to erosion.

Erosion can reduce productivity and can result in the pollution of streams. Productivity is reduced as the surface layer erodes and more of the subsoil is incorporated into the plow layer. Erosion of the surface layer can result in the loss of soil fertility by the direct removal of plant nutrients and organic matter. Loss of the surface layer is especially damaging on soils that have a clayey subsoil, such as Brantley, Faceville, Greenville, Halso, and Luverne soils. Also, loss of the surface layer can be damaging to soils that are moderately deep over bedrock, such as Arundel and Sumter soils. Controlling erosion on farmland minimizes the pollution of streams and improves the quality of water for municipal uses, for recreational uses, and for fish and wildlife.

Erosion-control practices provide a protective plant cover, increase the rate of water infiltration, and help to control runoff. A cropping system that keeps plant cover and crop residue on the surface for extended periods can hold soil losses to amounts that do not reduce the productive capacity of the soils. Including grasses and legumes in the cropping system helps to control erosion in sloping areas and improves tilth for the crops that follow in the rotation. The legumes also increase the nitrogen levels in the soils.

Applying a system of conservation tillage and leaving crop residue on the surface increase the rate of water infiltration and help to control runoff and erosion. Using a no-till method of planting reduces the hazard of erosion in sloping areas. No-till practices are suitable on most of the soils in the county.

Terraces and diversions help to control runoff and reduce the hazard of erosion. They are most practical on very deep, well drained soils that have uniform slopes. Dothan, Greenville, Orangeburg, and Red Bay soils are examples. Sandy soils, such as Blanton, Bonifay, Fuquay, Lucy, and Troup soils, are not suited to terracing because gullies form easily when water is concentrated on the surface. Grassed waterways or underground tile outlets are essential in areas where terraces and diversions are installed. Diversions can be used to intercept surface runoff from hilly uplands and to divert the water around the fields to vegetated disposal areas.

Contour farming is a very effective erosion-control method in cultivated areas when used in conjunction with a water-disposal system. It is best suited to soils that have smooth, uniform slopes. Examples are Dothan, Faceville, Greenville, Orangeburg, Malbis, and Red Bay soils.

Soil blowing can be a hazard in early spring on some soils in the uplands, especially if the soils are dry and are not protected by a plant cover. Forestland areas acting as shelters, however, generally dampen the effects of soil blowing on all but the largest cultivated tracts. The hazard of erosion generally is highest after the seedbed has been prepared, after planting, and when the plants are small. Tillage methods that leave crop residue on the surface reduce the hazard of soil blowing. Conventional planting practices should include an implement that scratches the surface, leaving a rough, irregular pattern. Also, strips of close-growing crops are effective as windbreaks. If possible, seedbed preparation should be delayed until after March, which generally is windy. Additional information regarding the design of erosion-control practices is available at the local office of the Natural Resources Conservation Service.

Crenshaw County has an adequate amount of rainfall for the commonly grown crops. Prolonged periods of drought are rare, but the distribution of rainfall during spring and summer generally results in droughty periods during the growing season in most years. Irrigation may be needed during these periods to reduce plant stress. Most of the soils that are commonly used for cultivated crops are suitable for irrigation; however, the amount of water applied should be regulated to prevent excessive runoff. Some soils, such as Halso and Hannon soils, have a slow or very slow rate of water infiltration that limits their suitability for irrigation.

In Crenshaw County, most of the soils that are used for crops have a surface layer of sandy loam or loamy sand that is light in color and has a low content of organic matter. Regular additions of crop residue, manure, and other organic material can improve the soil structure and minimize crust formation, thereby improving the rate of water infiltration. Regular additions of crop residue, manure, and other organic material can also improve the structure of these soils.

The use of heavy equipment can result in compaction of subsurface layers in most of the soils. The compacted layers, called plow pans or traffic pans, are generally at a depth of 2 to 8 inches. They restrict the rate of water infiltration and limit the growth of plant roots. Soils that readily develop traffic pans include Dothan, Greenville, Orangeburg, Malbis, and Red Bay soils.

Tilth is an important factor affecting plant growth because it influences the rate of water infiltration into the soil. Soils that have good tilth have sufficient organic matter and a granular, porous surface layer. Tilth is affected by the type of crop planted, past farming practices, and the degree of erosion that has occurred. Practices that maintain or increase the content of organic matter are needed for all soils in the county.

Natural fertility is low in most of the soils on terraces and uplands and is medium or high in most of the soils on the Blackland Prairie. Applications of agricultural limestone are needed to neutralize acidity in most of the soils on the uplands and terraces and in some of the soils on the Blackland Prairie, such as Hannon soils. The crops commonly grown in the county respond well to applications of lime and fertilizer. The levels of available phosphorus and potash are generally low in most of the soils. Some of the fields, however, have a buildup of phosphorus or potassium because of past applications of commercial fertilizer. Applications of lime and fertilizer should be based on the results of soil tests. Leaching is a concern in areas of sandy soils, such as Alaga, Blanton, Bonifay, Bonneau, Fuquay, and Troup soils. Higher levels of nitrogen, applied in split applications, should be used on these soils. The Cooperative Extension System can help in the determination of the kinds and amounts of fertilizer and lime to apply.

Wetness is a management concern in areas of Bibb, Casemore, Kinston, Leeper, Mantachie, Ocilla, and Pelham soils. If crops are to be grown in areas of these soils, a drainage system is needed to reduce the wetness. Flooding during the growing season is also a concern in areas of some of these soils. In some years, flooding delays planting and damages crops.

Bahiagrass and improved bermudagrass are the main perennial grasses grown for pasture and hay in the county. Rye, ryegrass, oats, and wheat are grown as annual cool-season grass forage. Millets, sorghums, and hybrid forage sorghums provide most of the annual warm-season grass forage. These annuals are generally grown in areas otherwise commonly used for cropland. Most of the soils in the county are suited to arrowleaf clover, white clover, crimson clover, ball clover, and other cool-season forage legumes, especially if agricultural limestone is applied in proper amounts. The well drained soils, such as Dothan, Greenville, Malbis, Orangeburg, Red Bay, and Springhill soils on the uplands, are suited to alfalfa, which is a warm-season legume.

A combination of management practices is needed on all of the soils that are used as pasture or hayland. These practices include using proper grazing management, controlling weeds, applying fertilizer properly, using rotation grazing, and scattering animal droppings. Overgrazing, low rates of fertilizer application, and acid soils are the main concerns affecting pasture management in the county. They can result in weak plants and poor stands that are quickly infested with weeds. Maintaining a dense cover of desired pasture species helps to prevent the establishment of weeds.

Yields per Acre

The average yields per acre that can be expected of the principal crops under a high level of management are shown in tables 6 and 7. In any given year, yields may be higher or lower than those indicated in the table 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.

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 tables 6 and 7 are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension System can provide information about the management and productivity of the soils for those crops.

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–SCS, 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 map units in this survey area is given in the section “Detailed Soil Map Units” and in table 6.

Landscaping and Gardening

Ben L. Moore, resource conservationist, Natural Resources Conservation Service, helped to prepare this section.

The soils in residential areas are used primarily as sites for homes, driveways, and streets. Remaining areas of each lot are commonly used for lawns, which enhance the appearance of the homes; as gardens for vegetables or flowers and shrubs; as orchards for fruits and nuts; for recreational uses; as habitat for animals and birds; for trees, which provide shade and promote energy conservation; for vegetation and structures designed to abate noise, enhance privacy, and provide protection from the wind; and for septic tank absorption fields. Because the outdoor areas are used for several purposes, careful planning and a good understanding of the soils are important.

This section contains general soil-related information for landscaping and gardening. Other information may be obtained from the local office of the Cooperative Extension System, the Natural Resources Conservation Service, or private businesses that provide landscaping and related services. The amount of soil information needed for use in some areas is beyond the scope of this soil survey and is more detailed than that provided at the map scale used. Onsite investigation is needed in these areas.

Most of the soils in the residential areas in Crenshaw County have been disturbed to some degree during construction of houses, streets, driveways, and utility service. The construction involved cutting and filling, grading, and excavating. As a result, soil properties are more variable and less predictable than in undisturbed areas. Onsite examination is necessary in planning land uses in disturbed areas.

Soils that have had the surface layer removed during grading and that are clayey or have dense layers in the subsoil are some of the poorest soils for plant growth. Arundel, Halso, and Luverne soils are clayey. Cowarts soils have dense layers in the subsoil. The exposed dense, firm subsoil restricts root penetration, absorbs little rainfall, and results in excessive runoff. Incorporating organic matter into the soil improves tilth, increases the rate of water infiltration, and provides a more desirable rooting medium. Areas that are subject to intensive foot traffic should be covered with gravel or a mulch, such as pine bark or wood chips.

Some soils, such as Bethera, Bibb, Kinston, and Mantachie soils, are wet. The wetness limits the selection of plants to those that are tolerant of a high moisture content in the soil. Several methods can be used to minimize the effects of the wetness. Shallow ditches can help to remove excess surface water. Installing underground tile drains can lower the water table in permeable soils. Bedding the surface layer of slowly permeable soils, such as Bethera soils, helps to provide a satisfactory root zone for some plants.

Some soils, such as Bibb, Iuka, Kinston, Leeper, Mantachie, and Marietta soils, are on flood plains. Most plants used for gardening and landscaping can be grown on these soils, but consideration should be given to the effects of floodwater. Surface drainage is a management concern because urban uses commonly result in increased rates of surface runoff, which increase the frequency and severity of flooding. Advice and assistance regarding drainage problems can be obtained from the Natural Resources Conservation Service, municipal and county engineering departments, and private engineering companies.

Sandy soils, such as Alaga, Blanton, Bonifay, Bonneau, Fuquay, Lucy, and Troup soils, are droughty, have low fertility, and have a low content of organic matter. Droughtiness limits the selection of plants that can be grown unless irrigation is provided. Additions of organic matter increase the available water capacity and help to retain nutrients in the root zone. Supplemental watering and split applications of plant nutrients are recommended. Applying a mulch, such as pine bark, wood chips, or pine straw, or incorporating peat moss or well-decomposed manure into the soil provides a more desirable medium for plant growth.

Natural fertility is low in most of the soils in the county. Most of the soils, with the exception of some soils in the Blackland Prairie area, are strongly acid or very strongly acid. Additions of ground limestone are needed to neutralize the acidity of most of the soils. The original surface layer contains the most plant nutrients and has the most favorable pH for most plants. In many areas, the fertility of the surface layer has been improved by applications of lime and fertilizer. If the surface layer is removed during construction, the remaining soil is strongly acid or very strongly acid and low in available plant nutrients. Also, some nutrients are unavailable for plant growth in acid soil conditions. Disturbed soils generally need larger amounts of lime and fertilizer, which should be applied according to the results of soil tests and the type of plants grown. Information on sampling for soil testing can be obtained from the Cooperative Extension System, the Natural Resources Conservation Service, and local nurseries.

In the following paragraphs, some of the plants that are used in landscaping and gardening and some management relationships between the plants and the soils are described. Information in this section should be supplemented by consultations with specialists at the Cooperative Extension System, the Natural Resources Conservation Service, or private landscaping and gardening businesses.

The grasses used for landscaping in Crenshaw County are mainly vegetatively propagated species, such as zoysiagrass, hybrid bermudagrass, St. Augustine grass, and centipede grass, and seeded species, such as common bermudagrass and centipede grass. The grasses commonly used for short-term cover include ryegrass, rye, wheat, Sudangrass, oats, and millet.

The vegetatively propagated plants are usually planted as sprigs, plugs, or sod. Additions of topsoil may be needed before planting in some areas. Also, lime and fertilizer should be applied and incorporated into the soil. The plants should be placed in close contact with the soil, and the plantings should be watered to ensure the establishment of the root system. Centipede grass, St. Augustine grass, and certain strains of zoysiagrass are moderately shade tolerant. St. Augustine grass and zoysiagrass normally require more maintenance than centipede grass. The strains of hybrid bermudagrass are fast growing, but they are not as shade tolerant as St. Augustine grass, centipede grass, or zoysiagrass.

Common perennial grasses that are established by seeding include common bermudagrass and centipede grass. Lime and fertilizer should be applied and incorporated into the soil before seeding. Proper planting depth is important when grasses are established from seed.

Short-term vegetative cover is used to protect the soil at construction sites or to provide cover between the planting seasons of the desired grass species. The most commonly used grasses for short-term cover are ryegrass for cool seasons and Sudangrass or millet for warm seasons. These species are annuals and die after the growing season. Periodic applications of lime and fertilizer are needed on all types of grasses. The kinds and amounts of lime and fertilizer to apply should be based on the results of soil tests.

Vines can be used to provide vegetative cover in moderately shaded areas and in steep areas that cannot be mowed. English ivy and periwinkle can be used for ground cover or on walls and fences. All of these plants are propagated vegetatively, usually from potted plants or sprigs.

Mulches can be used for ground cover in areas where traffic is too heavy for grass cover, in areas where shrubs and flowers are desired with additional ground cover, and in densely shaded areas. Mulches provide effective ground cover. They also provide immediate cover for erosion control in areas where live vegetation is not desired. Effective mulches include pine straw, small-grain straw, hay, composted grass clippings, wood chips, pine bark, gravel, and several manufactured materials. The type of mulch to use depends to some extent on the hazard of erosion. Mulches also can be used to conserve soil moisture and control weeds around trees, shrubs, and flowers.

Shrubs are used primarily to enhance the appearance of homesites. They also can be used to control traffic. They can be effective in dissipating the energy from raindrops and from runoff from roofs. Most native and adapted species add variety to residential settings. Reactions to acidity and fertility levels vary greatly between shrub types.

Vegetable and flower gardens are important to many individuals and businesses. However, the soils in areas where homes and businesses are established may not be suited to vegetables and flowers. Soils that have been disturbed by construction may not be productive unless topsoil is applied. Soils that have a slope of more than 8 percent have poor potential for vegetable gardening because of the hazard of erosion if the soils are tilled. Generally, steeper soils have a thinner surface layer. Flower gardening is possible in steeper areas, however, if mulches are used to help control erosion. Incorporating composted tree leaves and grass clippings into the soil improves fertility, tilth, and moisture content. Additional information regarding vegetable crops is included under the heading “Crops and Pasture.”

Most garden plants grow best in soils that have a pH between 5.5 and 6.5 and that have a high fertility level. Applying too much fertilizer or using fertilizers with the wrong combination of plant nutrients can be avoided by soil testing, which is the only effective method of determining the amount and kind of fertilizer that should be applied. Information regarding soil testing can be obtained from the Cooperative Extension System, the Natural Resources Conservation Service, or retail fertilizer businesses.

Trees are important in the landscaping of homesites. Information regarding the relationships between soils and trees is available in the section “Forestland Productivity and Management.” Special assistance regarding urban forestry can be obtained from the Alabama Forestry Commission.

Forestland Productivity and Management

In Crenshaw County, commercial forestland covers about 293,500 acres, or about 75 percent of the total land area. Nonindustrial private and corporate landowners own about 75 percent of the forestland in the county, and the forest industry owns the remaining 25 percent.

The forest types in Crenshaw County include 90,300 acres of loblolly-shortleaf pine, 67,700 acres of oak-pine, 101,600 acres of oak-hickory, and 33,900 acres of oak-gum-cypress (Hartselle and Brown, 2000).

Most of the soils in the uplands and the acid soils on the Blackland Prairie have a site index of 80 or higher for loblolly pine. The alkaline soils in the Blackland Prairie, such as Leeper and Sumter soils, are not suited to pines. Because of long periods of ponding, Fluvaquents are also not suited to pines.

The tables associated with 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 forest management.

Forestland Productivity

In table 8, 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. The estimates of the productivity of the soils are based on data acquired in the county and on published data (Beck, 1962; Broadfoot, 1963; Broadfoot and Krinard, 1959; Coile and Schumacher, 1953; USDA, 1976). More detailed information regarding the 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 (http://soils.usda.gov).

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 9a through 9d, interpretive ratings are given for various aspects of forest management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified forest management practice. *Well suited* indicates that the soil has features that are favorable for the specified practice 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 practice. 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 practice. 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 practice 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 forest management practice (1.00) and the point at which the soil feature is not a limitation (0.00).

The paragraphs that follow indicate the soil properties considered in rating the soils for forest management practices. 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 (http://soils.usda.gov).

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.

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.

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.

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.

Recreation

The soils of the survey area are rated in tables 10a and 10b according to limitations that affect their suitability for recreation. 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 tables 10a and 10b can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

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.

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

Jeffery Thurmond, wildlife biologist, Natural Resources Conservation Service, helped to prepare this section.

Crenshaw County is dominantly rural and has suitable habitat for many kinds of wildlife. The county is about 75 percent forestland and is interspersed with areas of cultivated crops, pasture, and hayland.

The common species of wild game in the county are eastern wild turkey, mourning dove, bobwhite quail, white-tailed deer, eastern cottontail rabbit, fox squirrel, gray squirrel, feral hogs, Canada geese, and various species of ducks.

The nongame wildlife species in the county include armadillos, alligators, gopher tortoises (fig. 11), snakes, egrets, herons, crows, blackbirds, hawks, owls, and songbirds, such as bluebirds, cardinals, robins, thrushes, blue jays, meadowlarks, mockingbirds, sparrows, woodpeckers, vireos, warblers, and wrens.

In upland areas, the forestland generally consists of loblolly pine or mixed pines and hardwoods. On flood plains along streams and rivers, it generally consists of bottomland hardwoods. The forest types and their associated plant communities are of major importance to wildlife. Many of the forestland areas are managed primarily to provide habitat for various species of wildlife, such as bobwhite quail, white-tailed deer, and turkey. Management practices that benefit wildlife, including prescribed burning, creating or maintaining openings in the forestland, and thinning stands, are common throughout the county.

Figure 11.—A gopher tortoise sunning in front of its burrow in an area of Fuquay loamy fine sand, 0 to 5 percent slopes. Such tortoises are common in some areas of Crenshaw County. They prefer to dig burrows in sandy, well drained soils.

Areas of cultivated crops, hay, and pasture are commonly interspersed with the forestland. The open areas are very important to many species of wildlife. The areas of cropland are primarily used for agricultural commodities, such as soybeans, corn, peanuts, grain sorghum, and cotton. The pasture and hayland areas are generally used for perennial grasses, such as bahiagrass, bermudagrass, and tall fescue.

Wetlands are used by many kinds of wildlife. Many of the furbearers and wading birds depend upon these areas almost exclusively. Natural depressions and areas of saturated soils along creeks and rivers, bodies of open water, and beaver ponds make up most of the wetland areas in the county. They occur mostly in areas that are adjacent to the Conecuh River and along major streams, such as Patsaliga, Little Patsaliga, Piney Woods, Blue, and Pintlala Creeks.

Furbearers in the county include beaver, muskrat, river otter, mink, bobcat, fox, opossum, coyote, raccoon, and skunk. Waterfowl and wading birds are numerous during certain times of the year in wetland areas, especially along the Conecuh River and Patsaliga Creek.

The wildlife species in Crenshaw County that the Federal government has listed as threatened or endangered include the Red Hill salamander, the Eastern indigo snake, and the wood stork.

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, maintaining the existing plant cover, or promoting the natural establishment of desirable plants.

In table 11, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that limitations are severe for the designated element or kind of habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and must be intensive. A rating of *very poor* indicates that restrictions for the element or kind of habitat are very severe and that unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of grain and seed crops are corn, soybeans, wheat, oats, grain sorghum, millet, cowpeas, and sunflower.

Grasses and legumes are domestic perennial grasses and herbaceous legumes. Soil properties and features that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, flooding, and slope. Soil temperature and soil moisture also are considerations. Examples of grasses and legumes are fescue, bahiagrass, vetch, Johnsongrass, lespedeza, clover, and alfalfa.

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of wild herbaceous plants are dewberry, blackberry, bluestem, goldenrod, beggarweed, crotons, partridge pea, greenbrier, and honeysuckle.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees and shrubs are depth of the root zone, available water capacity, and wetness. Examples of these plants are oak, yellow-poplar, black cherry, sweetgum, apple, hawthorn, dogwood, common persimmon, hickory, sassafras, holly, and blueberry. Examples of fruit-producing shrubs that are suitable for planting on soils rated *good* are pyracantha, autumn-olive, and crabapple.

Coniferous plants furnish browse and seeds. Soil properties and features that affect the growth of coniferous trees, shrubs, and ground cover are depth of the root zone, available water capacity, and wetness. Examples of coniferous plants are pine, eastern redcedar, and baldcypress.

Wetland plants are annual and perennial wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Soil properties and features affecting wetland plants are texture of the surface layer, wetness, reaction, salinity, slope, and surface stoniness. Examples of wetland plants are smartweed, wild millet, cattails, rushes, sedges, and reeds.

Shallow water areas have an average depth of less than 5 feet. Some are naturally wet areas. Others are created by dams, levees, or other water-control structures. Soil properties and features affecting shallow water areas are depth to bedrock, wetness, surface stoniness, slope, and permeability. Examples of shallow water areas are marshes, beaver ponds, and other ponds.

The habitat for various kinds of wildlife is described in the following paragraphs.

Habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. Wildlife attracted to these areas include bobwhite quail, mourning dove, meadowlark, field sparrow, cottontail rabbit, and red fox.

Habitat for woodland wildlife consists of areas of deciduous and/or coniferous plants and associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include wild turkey, woodcock, thrushes, warblers, vireos, woodpeckers, squirrels, gray fox, raccoon, and deer.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas. Some of the wildlife attracted to such areas are ducks, geese, herons, rails, kingfishers, otter, turtles, alligators, muskrat, mink, and beaver.

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. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to 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, 1995). These criteria are used to identify a phase of a soil series that normally is associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999), "Keys to Soil Taxonomy" (Soil Survey Staff, 2003), and the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period to be considered hydric, they should 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).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

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 recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2006).

BbA Bibb part, Bibb-Iuka complex, 0 to 1 percent slopes, frequently flooded
FlA Fluvaquents, ponded
MKA Kinston part, Mantachie, Kinston, and Iuka soils, 0 to 1 percent slopes, frequently flooded
PoA Pelham part, Pelham-Ocilla complex, 0 to 2 percent slopes, rarely flooded
RbA Rains-Bethera complex, 0 to 1 percent slopes, occasionally flooded

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.

The following map units, in general, do not meet the definition of hydric soils because they do not have one of the hydric soil indicators. A portion of these map units, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

ArE Arundel fine sandy loam, 8 to 35 percent slopes
BrE Brantley sandy loam, 15 to 30 percent slopes
BrF Brantley sandy loam, 30 to 50 percent slopes
CaA Casemore loam, 0 to 1 percent slopes, rarely flooded
CmB Compass loamy sand, 1 to 3 percent slopes
CtE Cowarts-Troup complex, 8 to 20 percent slopes

EuA	Eunola sandy loam, 0 to 2 percent slopes, rarely flooded
GtD3	Greenville clay loam, 8 to 15 percent slopes, severely eroded
HaE2	Halso fine sandy loam, 8 to 20 percent slopes, eroded
ImA	Iuka-Marietta complex, 0 to 2 percent slopes, frequently flooded
LaA	Leeper-Marietta complex, 0 to 2 percent slopes, occasionally flooded
LvD	Luverne sandy loam, 8 to 15 percent slopes
LvE	Luverne sandy loam, 15 to 25 percent slopes
MbB	Malbis fine sandy loam, 1 to 3 percent slopes
MbC	Malbis fine sandy loam, 5 to 8 percent slopes
NsE	Nankin-Springhill-Lucy complex, 15 to 35 percent slopes
Pt	Pits, borrow
ReA	Red Bay fine sandy loam, 0 to 2 percent slopes
ReB	Red Bay fine sandy loam, 2 to 5 percent slopes
SmD	Smithdale sandy loam, 8 to 15 percent slopes
SpC2	Springhill sandy loam, 5 to 8 percent slopes, eroded
SpD2	Springhill sandy loam, 8 to 15 percent slopes, eroded
StE2	Sumter-Hannon complex, 12 to 35 percent slopes, eroded
TaD	Troup loamy sand, 8 to 15 percent slopes
TgD	Troup-Alaga complex, 5 to 15 percent slopes
ToE	Troup-Lucy-Luverne complex, 15 to 35 percent slopes
TrD	Troup-Luverne complex, 5 to 15 percent slopes
TsE	Troup-Luverne-Smithdale complex, 15 to 35 percent slopes

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, earthfill, and topsoil; plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; 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. Tables 12a and 12b 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 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).

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.

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 13a and 13b 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).

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.

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 14a and 14b 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.

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 table 14a, 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.

The soils are rated *good, fair,* or *poor* as potential sources of reclamation material, roadfill, and topsoil. 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 topsoil, reclamation material, or roadfill. 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 15 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. 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 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.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are ascertained 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 index properties, physical and chemical properties, and pertinent soil and water features.

Engineering Properties

Table 16 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, 2001) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2000).

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.

The estimates of particle-size distribution are generally rounded to the nearest 5 percent. Thus, if the range of gradation extends a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is generally omitted in the table.

Physical Soil Properties

Table 17 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.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In table 17, 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 (33kPa or 10kPa) 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 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 micrometers per second. 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 tension (33kPa or 10kPa 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 table 17, 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 table 17 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.

Chemical Soil Properties

Table 18 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 bases 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 bases 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.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

Water Features

Table 19 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.

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. Table 19 indicates, by month, depth to the top *(upper limit)* of the saturated zone in most years. Estimates 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.

Table 19 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 20 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 and thickness of the restrictive layer, both of which significantly affect the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

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.

Physical and Chemical Analyses of Selected Soils

The results of physical analyses of several typical pedons in the survey area are given in table 21 and the results of chemical analyses in table 22. The data are for soils sampled at carefully selected sites. The pedons are typical of the series. They are described in the section “Soil Series and Their Morphology.” Soil samples were analyzed by the Agronomy and Soils Clay Mineralogy Laboratory, Auburn University, Auburn, Alabama.

Most determinations, except those for grain-size analysis and bulk density, were made on soil material smaller than 2 millimeters in diameter. Measurements reported as percent or quantity of unit weight were calculated on an ovendry basis. The methods used in obtaining the data are indicated in the list that follows. The codes in parentheses refer to published methods (Hajek, Adams, and Cope, 1972; USDA, 2004).

Sand—(0.05-2.0 mm fraction) weight percentages of material less than 2 mm (3A1).
Silt—(0.002-0.05 mm fraction) pipette extraction, weight percentages of all material less than 2 mm (3A1).
Clay—(fraction less than 0.002 mm) pipette extraction, weight percentages of material less than 2 mm (3A1).
Extractable bases—method of Hajek, Adams, and Cope.
Cation-exchange capacity—sum of cations (5A3a).
Base saturation— method of Hajek, Adams, and Cope.
Reaction (pH)—1:1 water dilution (8C1f).

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 2003). 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. Table 23 shows the classification of the soils in the survey area. 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 Udult (*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, mixed, semiactive, 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 Luverne series, which is a member of the fine, mixed, semiactive, thermic Typic Hapludults. The table “Taxonomic Classification of the Soils” 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, 2003). 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.

Alaga Series

Depth class: Very deep
Drainage class: Somewhat excessively drained
Permeability: Rapid
Parent material: Sandy sediments
Landform: Hillslopes
Landform position: Footslopes and the lower part of backslopes
Slope: 5 to 15 percent
Taxonomic class: Thermic, coated Typic Quartzipsamments

Commonly Associated Soils

Lucy, Luverne, Orangeburg, Smithdale, and Troup soils are commonly associated with the Alaga series.

- The Lucy and Troup soils are in positions similar to those of the Alaga soils. The Lucy soils have a loamy kandic horizon within a depth of 20 to 40 inches. The Troup soils have a loamy kandic horizon within a depth of 40 to 80 inches.
- The clayey Luverne and loamy Smithdale soils are on the upper parts of backslopes.
- The loamy Orangeburg soils are on summits of ridges.

Typical Pedon

Typical pedon of Alaga loamy sand, in an area of Alaga-Troup complex, 0 to 5 percent slopes; about 2.5 miles west of Forest Home; in Butler County, Alabama; 450 feet east and 1,650 feet north of the southwest corner of sec. 5, T. 10 N., R. 12 E.; USGS Moodys Crossroads topographic quadrangle; lat. 31 degrees 51 minutes 51 seconds N. and long. 86 degrees 1 minute 20 seconds W.

Ap—0 to 6 inches; dark brown (10YR 3/3) loamy sand; weak fine granular structure; very friable; many fine roots; strongly acid; abrupt smooth boundary.
C1—6 to 48 inches; strong brown (7.5YR 5/6) loamy sand; single grained; loose; common fine roots; strongly acid; gradual wavy boundary.
C2—48 to 96 inches; strong brown (7.5YR 5/6) sand; single grained; loose; few fine roots; few streaks of pale brown (10YR 6/3) uncoated sand; very strongly acid; gradual wavy boundary.
C3—96 to 114 inches; strong brown (7.5YR 5/8) loamy sand; single grained; loose; few fine roots; very strongly acid.

Range in Characteristics

Thickness of the sandy layer: More than 80 inches
Reaction: Extremely acid to strongly acid throughout the profile, except in areas where lime has been applied

Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

C horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 8
Texture—loamy sand, loamy fine sand, or sand

Arundel Series

Depth class: Moderately deep
Drainage class: Well drained
Permeability: Very slow
Parent material: Clayey residuum weathered from siltstone or claystone
Landform: Ridges, knolls, and hillslopes
Landform position: Summits of narrow ridges, backslopes, and footslopes
Slope: 2 to 35 percent
Taxonomic class: Fine, smectitic, thermic Typic Hapludults

Commonly Associated Soils

Halso, Lucy, Luverne, and Springhill soils are commonly associated with the Arundel series.

- The deep, clayey Halso soils are commonly on ridges and side slopes at lower elevations than the Arundel soils.
- The Lucy soils are on footslopes and shoulder slopes and have a thick, sandy epipedon.
- The very deep, clayey Luverne and loamy Springhill soils are commonly on ridges and side slopes at higher elevations than the Arundel soils.

Typical Pedon

Typical pedon of Arundel fine sandy loam, 2 to 8 percent slopes; about 2 miles south of Cooks Stand; 1,400 feet east and 600 feet north of the southwest corner of sec. 35, T. 9 N., R. 16 E.; USGS Moodys Crossroads topographic quadrangle; lat. 31 degrees 42 minutes 30 seconds N. and long. 86 degrees 25 minutes 0 seconds W.

A1—0 to 3 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; very friable; many fine and medium and common coarse roots; about 10 percent pebble-sized fragments of siltstone; very strongly acid; clear wavy boundary.

A2—3 to 6 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak fine granular structure; very friable; many fine and medium and common coarse roots; about 10 percent pebble-sized fragments of siltstone; very strongly acid; abrupt wavy boundary.

Bt1—6 to 16 inches; clay, dark red (2.5YR 3/6) exterior and red (2.5YR 4/6) interior; strong coarse subangular blocky structure parting to strong fine and medium angular blocky; firm; common medium and fine and few coarse roots; common fine flakes of mica; few faint clay films on faces of peds; about 10 percent pebble-sized fragments of siltstone; very strongly acid; gradual wavy boundary.

Bt2—16 to 24 inches; yellowish red (5YR 4/6) sandy clay; moderate coarse angular blocky structure parting to strong fine and medium angular blocky; firm; common fine and medium roots; few faint clay films on faces of peds; many pressure faces; about 10 percent pebble-sized fragments of siltstone; few medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bt3—24 to 29 inches; yellowish red (5YR 4/6) sandy clay; moderate coarse angular blocky structure parting to strong fine and medium angular blocky; firm; few fine roots; common faint clay films on faces of peds; many pressure faces; common fine flakes of mica; about 10 percent pebble-sized fragments of siltstone; few medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; few fine distinct pale brown (10YR 6/3) iron depletions; very strongly acid; clear wavy boundary.

C—29 to 35 inches; 30 percent light brown (7.5YR 6/3), 30 percent reddish yellow (7.5YR 6/8), 20 percent light brownish gray (10YR 6/2), and 20 percent yellowish red (5YR 4/6) fine sandy loam; moderate thick platy rock structure; firm; few fine roots in fractures; about 10 percent pebble-sized fragments of siltstone; very strongly acid.

Cr—35 to 80 inches; light brown (7.5YR 6/3) siltstone; strong thick platy rock structure; extremely firm; common fractures at 10- to 20-inch intervals; few fine roots in fractures; common coarse distinct reddish yellow (5YR 6/8) masses of iron accumulation on structural surfaces; extremely acid.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to bedrock: 20 to 40 inches
Content and size of rock fragments: 5 to 15 percent siltstone pebbles or cobbles throughout the profile
Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4

Bt horizon:
Color—hue of 2.5YR to 10YR, value of 3 to 5, and chroma of 4 to 8
Texture—clay, silty clay, sandy clay, or clay loam
Redoximorphic features (where present)—iron depletions in shades of brown and masses of iron accumulation in shades of brown, yellow, or red

C horizon (where present):
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 3 to 8; or no dominant matrix color and multicolored in shades of red, yellow, gray, and brown
Texture—clay, clay loam, sandy clay loam, or fine sandy loam
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Cr horizon:
Type of bedrock—weathered siltstone or claystone; massive or platy rock structure
Other distinctive features—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

Bethera Series

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Slow
Parent material: Clayey alluvium
Landform: Low stream terraces
Landform position: Flat and concave slopes

Slope: 0 to 1 percent
Taxonomic class: Fine, mixed, semiactive, thermic Typic Paleaquults

Commonly Associated Soils

Eunola, Ocilla, Pelham, and Rains soils are commonly associated with the Bethera series.

- The moderately well drained, loamy Eunola soils and the sandy Ocilla and Pelham soils are on terraces at slightly higher elevations than the Bethera soils.
- The loamy Rains soils are in positions similar to those of the Bethera soils.

Typical Pedon

Typical pedon of Bethera loam, in an area of Rains-Bethera complex, 0 to 1 percent slopes, occasionally flooded; about 5 miles northwest of Leon; 100 feet west and 400 feet south of the northeast corner of sec. 8, T. 7 N., R. 16 E.; USGS Leon topographic quadrangle; lat. 31 degrees 35 minutes 46 seconds N. and long. 86 degrees 27 minutes 57 seconds W.

A1—0 to 4 inches; very dark gray (10YR 3/1) loam; weak fine granular structure; friable; many fine roots; very strongly acid; clear wavy boundary.
A2—4 to 8 inches; dark gray (10YR 4/1) loam; weak medium granular structure; friable; many fine roots; very strongly acid; abrupt wavy boundary.
Btg1—8 to 20 inches; grayish brown (10YR 5/2) clay; moderate medium subangular blocky structure; firm; many fine roots; few faint clay films on faces of peds; common medium distinct light yellowish brown (10YR 6/4) and yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.
Btg2—20 to 40 inches; gray (10YR 5/1) clay; moderate medium subangular blocky structure; firm; few fine roots; few faint clay films on faces of peds; common fine and medium prominent brownish yellow (10YR 6/6) and yellowish red (5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.
Btg3—40 to 62 inches; gray (2.5Y 5/1) clay; moderate medium subangular blocky structure; firm; few fine roots; few faint clay films on faces of peds; many fine and medium prominent yellowish red (5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.
Btg4—62 to 80 inches; gray (2.5Y 5/1) clay; weak coarse subangular blocky structure; firm; few fine roots; few faint clay films on faces of peds; many fine and medium prominent yellowish brown (10YR 5/6) and yellowish red (5YR 4/6) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 or 2

Btg horizon:
Color—hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2
Texture—clay, clay loam, or sandy clay
Redoximorphic features—iron depletions in shades of gray and masses of iron accumulation in shades of red, yellow, and brown

Bibb Series

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Moderate
Parent material: Stratified loamy and sandy alluvium
Landform: Flood plains
Landform position: Flat and concave slopes in backswamps
Slope: 0 to 1 percent
Taxonomic class: Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents

Commonly Associated Soils

Eunola, Iuka, Kinston, and Mantachie soils and Fluvaquents are commonly associated with the Bibb series.

- The moderately well drained Eunola soils are on stream terraces.
- The moderately well drained Iuka soils are on high parts of natural levees.
- The Kinston soils are in positions similar to those of the Bibb soils but are fine-loamy.
- The somewhat poorly drained Mantachie soils are on the lower parts of natural levees and are fine-loamy.
- The very poorly drained Fluvaquents are in sloughs and other depressional positions in backswamps.

Typical Pedon

Typical pedon of Bibb fine sandy loam, in an area of Bibb-Iuka complex, 0 to 1 percent slopes, frequently flooded; about 2 miles northwest of Rutledge; 2,300 feet west and 2,500 feet south of the northeast corner of sec. 22, T. 8 N., R. 17 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 45 minutes 0 seconds N. and long. 86 degrees 20 minutes 10 seconds W.

A—0 to 4 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak fine granular structure; friable; many fine, medium, and coarse roots; few medium concretions of iron and manganese oxides; few fine prominent yellowish red (5YR 5/6) masses of iron accumulation in root channels; very strongly acid; abrupt smooth boundary.

Cg1—4 to 12 inches; gray (10YR 6/1) sandy loam; massive; friable; many fine and medium roots; common medium distinct dark yellowish brown (10YR 4/6) irregularly shaped masses of iron accumulation throughout; very strongly acid; gradual wavy boundary.

Cg2—12 to 30 inches; gray (2.5Y 5/1) sandy loam; massive; friable; few fine and medium roots; few fine flakes of mica; few coarse root channels filled with grayish brown (10YR 5/2) loam; many fine and medium distinct light olive brown (2.5Y 5/6) irregularly shaped masses of iron accumulation throughout; very strongly acid; gradual wavy boundary.

Cg3—30 to 50 inches; gray (5Y 5/1) sandy loam; massive; friable; common fine roots; few fine flakes of mica; common medium distinct olive (5Y 5/4) and yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation; few fine prominent yellowish red (5YR 4/6) masses of iron accumulation lining pores and root channels; very strongly acid; clear wavy boundary.

Cg4—50 to 64 inches; gray (5Y 5/1) sandy loam; massive; friable; few fine flakes of mica; few fine concretions of iron and manganese oxides; common medium distinct light olive brown (2.5Y 5/4) irregularly shaped masses of iron accumulation throughout; very strongly acid; gradual wavy boundary.

Cg5—64 to 80 inches; gray (5Y 6/1) sandy loam; massive; friable; many medium prominent strong brown (7.5YR 5/6) and brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the underlying soil material: More than 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3
Redoximorphic features (where present)—masses of iron accumulation in shades of brown or red

Cg horizon (upper part):
Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of gray, brown, and yellow
Texture—sandy loam, fine sandy loam, or loam; thin strata of finer or coarser textured material in many pedons
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, and red

Cg horizon (lower part):
Color—hue of 10YR to 5Y, value of 4 to 7, and chroma of 1 or 2; or neutral in hue and value of 4 to 6
Texture—sandy loam, loam, loamy sand, or sand; thin strata of finer or coarser textured material in many pedons
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, and red

Blanton Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Parent material: Sandy and loamy sediments
Landform: Ridges and stream terraces
Landform position: Summits, shoulder slopes, and backslopes
Slope: 0 to 8 percent
Taxonomic class: Loamy, siliceous, subactive, thermic Grossarenic Paleudults

Commonly Associated Soils

Bonifay, Compass, Cowarts, Dothan, and Fuquay soils are commonly associated with the Blanton series.

- The Bonifay and Fuquay soils are on summits and side slopes at higher elevations than the Blanton soils and have a significant accumulation of plinthite in the subsoil.
- The Compass, Cowarts, and Dothan soils are commonly on summits and side slopes at higher elevations than the Blanton soils and do not have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Blanton loamy sand, 0 to 5 percent slopes; about 1 mile south of Rutledge; 1,300 feet east and 2,500 feet south of the northwest corner of sec. 35 , T. 9 N., R. 17 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 42 minutes 30 seconds N. and long. 86 degrees 20 minutes 0 seconds W.

Ap—0 to 6 inches; brown (10YR 4/3) loamy sand; weak fine granular structure; very friable; few fine and medium roots; strongly acid; clear smooth boundary.

AE—6 to 18 inches; dark yellowish brown (10YR 4/4) loamy sand; weak coarse subangular blocky structure; very friable; few fine and medium roots; strongly acid; clear wavy boundary.

E1—18 to 28 inches; yellowish brown (10YR 5/4) loamy sand; weak coarse subangular blocky structure; very friable; few fine and medium roots; very strongly acid; gradual wavy boundary.

E2—28 to 46 inches; brown (10YR 5/3) loamy sand; weak coarse subangular blocky structure; very friable; few fine roots; common streaks and splotches of very pale brown (10YR 7/4) sand; very strongly acid; clear wavy boundary.

Bt1—46 to 56 inches; yellowish brown (10YR 5/6) sandy loam; weak medium subangular blocky structure; friable; few fine roots; common faint clay films on faces of peds; common thin streaks of pale brown (10YR 6/3) sand; very strongly acid; clear wavy boundary.

Bt2—56 to 64 inches; strong brown (7.5YR 5/6) sandy clay loam; moderate medium subangular blocky structure; friable; common faint clay films on faces of peds; common medium distinct light yellowish brown (10YR 6/4) and pale brown (10YR 6/3) iron depletions; few fine prominent red (2.5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bt3—64 to 80 inches; strong brown (7.5YR 5/6) sandy clay loam; moderate medium subangular blocky structure; friable; common faint clay films on faces of peds; about 2 percent masses of nodular plinthite; few medium distinct light yellowish brown (10YR 6/4) and pale brown (10YR 6/3) iron depletions; common medium distinct red (2.5YR 4/6) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Thickness of the sandy epipedon: 40 to 80 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface and subsurface layers in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

AE or EA horizon (where present):
Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4
Texture—loamy sand or loamy fine sand

E horizon:
Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4
Texture—loamy sand or loamy fine sand

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—sandy loam or sandy clay loam
Redoximorphic features—iron or clay depletions in shades of brown or gray and masses of iron accumulation in shades of brown and red

Bonifay Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and moderately slow in the subsoil

Parent material: Sandy and loamy sediments
Landform: Ridges and high stream terraces
Landform position: Summits, shoulder slopes, and backslopes
Slope: 0 to 8 percent
Taxonomic class: Loamy, siliceous, subactive, thermic Grossarenic Plinthic Paleudults

Commonly Associated Soils

Blanton, Compass, Cowarts, Dothan, and Fuquay soils are commonly associated with the Bonifay series.

- The Blanton soils are on summits and side slopes at lower elevations than the Bonifay soils and do not have a significant accumulation of plinthite in the subsoil.
- The Compass soils are on broad ridges at lower elevations than the Bonifay soils and do not have a thick, sandy epipedon.
- The Cowarts and Dothan soils are in positions similar to those of the Bonifay soils but do not have a thick, sandy epipedon.
- The Fuquay soils are in positions similar to those of the Bonifay soils but have a sandy epipedon that ranges from 20 to 40 inches in thickness.

Typical Pedon

Typical pedon of Bonifay loamy sand, 0 to 5 percent slopes; about 2 miles south of Rutledge; 2,000 feet east and 800 feet south of the northwest corner of sec. 2 , T. 8 N., R. 17 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 42 minutes 1 second N. and long. 86 degrees 19 minutes 42 seconds W.

Ap—0 to 9 inches; dark yellowish brown (10YR 4/4) loamy sand; weak fine granular structure; very friable; few fine and medium roots; strongly acid; clear smooth boundary.

E1—9 to 18 inches; light yellowish brown (10YR 6/4) loamy sand; weak coarse subangular blocky structure; very friable; few fine roots; very strongly acid; clear wavy boundary.

E2—18 to 32 inches; brownish yellow (10YR 6/6) loamy sand; weak coarse subangular blocky structure; very friable; few fine roots; very strongly acid; gradual wavy boundary.

E3—32 to 48 inches; yellowish brown (10YR 5/6) loamy sand; weak coarse subangular blocky structure; very friable; few fine roots; common thin streaks of uncoated sand; very strongly acid; gradual wavy boundary.

E4—48 to 60 inches; brownish yellow (10YR 6/6) loamy sand; weak coarse subangular blocky structure; very friable; common thin streaks of uncoated sand; very strongly acid; abrupt wavy boundary.

Btv1—60 to 73 inches; brownish yellow (10YR 6/6) sandy clay loam; moderate medium subangular blocky structure; friable; common faint clay films on faces of peds; about 10 percent masses of nodular plinthite; about 10 percent ironstone pebbles; common medium distinct pale brown (10YR 6/3) iron depletions; few medium prominent red (2.5YR 4/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btv2—73 to 82 inches; 40 percent red (2.5YR 4/6), 25 percent yellowish brown (10YR 5/6), 20 percent light brownish gray (10YR 6/2), and 15 percent strong brown (7.5YR 5/6) sandy clay loam; weak coarse subangular blocky structure; firm; common faint clay films on faces of peds; about 15 percent masses of nodular plinthite; areas of light brownish gray are iron depletions; areas of yellowish brown and strong brown are masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Thickness of the sandy epipedon: 40 to 80 inches
Content of plinthite: 5 to 25 percent in the Btv horizon
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface and subsurface layers in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

E horizon:
Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 6
Texture—loamy sand, loamy fine sand, or sand

Btv horizon (upper part):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—sandy loam or sandy clay loam
Redoximorphic features—iron or clay depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Btv horizon (lower part):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 to 8; or no dominant matrix color and multicolored in shades of brown, red, gray, and yellow
Texture—sandy clay loam or sandy clay
Redoximorphic features—iron or clay depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Bonneau Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Parent material: Loamy and sandy sediments
Landform: Stream terraces
Landform position: Summits, shoulder slopes, and side slopes
Slope: 0 to 5 percent
Taxonomic class: Loamy, siliceous, subactive, thermic Arenic Paleudults

Commonly Associated Soils

Blanton, Bonifay, and Eunola soils are commonly associated with the Bonneau series.

- The Blanton and Bonifay soils are on summits and side slopes at higher elevations than the Bonneau soils and have a sandy epipedon that ranges from 40 to 80 inches in thickness.
- The Eunola soils are in positions similar to those of the Bonneau soils but are at lower elevations and do not have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Bonneau loamy sand, 0 to 5 percent slopes; about 1 mile west of Luverne; 300 feet west and 1,500 feet north of the southeast corner of sec. 1, T. 8 N., R. 17 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 41 minutes 30 seconds N. and long. 86 degrees 17 minutes 30 seconds W.

Ap1—0 to 5 inches; brown (10YR 4/3) loamy sand; weak fine granular structure; very friable; few fine roots; moderately acid; clear smooth boundary.

Ap2—5 to 13 inches; brown (10YR 5/3) loamy sand; weak coarse subangular blocky structure; very friable; few fine roots; common thin streaks of light yellowish brown (10YR 6/4) fine sand; moderately acid; abrupt wavy boundary.

E—13 to 21 inches; light yellowish brown (10YR 6/4) loamy fine sand; weak coarse subangular blocky structure; very friable; few fine roots; few thin streaks and spots of brown (10YR 4/3) fine sand; moderately acid; clear wavy boundary.

E/B—21 to 28 inches; 70 percent light yellowish brown (2.5Y 6/4) loamy fine sand (E); weak coarse subangular block structure; very friable; 30 percent light olive brown (2.5Y 5/4) fine sandy loam (B); weak coarse subangular blocky structure; very friable; few fine roots; moderately acid; gradual wavy boundary.

B/E—28 to 35 inches; 70 percent light olive brown (2.5Y 5/6) fine sandy loam (B); weak coarse subangular blocky structure; very friable; 30 percent light yellowish brown (2.5Y 6/3) loamy fine sand (E); weak coarse subangular blocky structure; very friable; few fine roots; strongly acid; abrupt wavy boundary.

Bt1—35 to 45 inches; yellowish brown (10YR 5/6) fine sandy loam; moderate medium subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; common medium prominent yellowish red (5YR 5/8) masses of iron accumulation; strongly acid; clear wavy boundary.

Bt2—45 to 52 inches; yellowish brown (10YR 5/6) sandy clay loam; weak coarse prisms parting to moderate medium subangular blocky structure; firm; common distinct clay films on faces of peds; few medium prominent yellowish red (5YR 5/6) masses of iron accumulation; many medium distinct light brownish gray (10YR 6/2) and yellowish brown (10YR 5/4) iron depletions; very strongly acid; gradual wavy boundary.

Bt3—52 to 71 inches; strong brown (7.5YR 5/6) sandy clay loam; weak coarse prisms parting to weak medium subangular blocky structure; common distinct clay films on faces of peds; firm; common medium distinct yellowish red (5YR 4/6) and red (2.5YR 4/6) masses of iron accumulation; many medium distinct gray (10YR 6/1) iron depletions; extremely acid; clear wavy boundary.

Bt4—71 to 85 inches; strong brown (7.5YR 5/6) sandy clay loam; weak coarse prisms parting to weak medium subangular blocky structure; friable; common distinct clay films on faces of peds; common medium distinct yellowish brown (10YR 5/6) and yellowish red (5YR 5/6) masses of iron accumulation; common medium distinct gray (10YR 6/1) iron depletions; extremely acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Thickness of the sandy epipedon: 20 to 40 inches
Reaction: Extremely acid to strongly acid throughout the profile, except for the surface and subsurface layers in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

E horizon and E part of the E/B and B/E horizons:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 or 4
Texture—loamy sand, loamy fine sand, or fine sand

Bt horizon (upper part) and B part of the E/B and B/E horizons:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8
Texture—sandy loam, fine sandy loam, or sandy clay loam
Redoximorphic features—iron depletions in shades of brown and masses of iron accumulation in shades of brown and red

Bt horizon (lower part):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 to 8; or no dominant matrix color and multicolored in shades of brown, red, gray, and yellow
Texture—sandy loam, sandy clay loam, or sandy clay
Redoximorphic features—iron or clay depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Brantley Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Parent material: Stratified clayey and loamy sediments
Landform: Ridges and hillslopes
Landform position: Summits, backslopes, and shoulder slopes
Slope: 2 to 50 percent
Taxonomic class: Fine, mixed, active, thermic Ultic Hapludalfs

Commonly Associated Soils

Hannon, Leeper, Marietta, Sumter, and Troup soils are commonly associated with the Brantley series.

- The Hannon and Sumter soils are on ridges and hillslopes at lower elevations than the Brantley soils. Hannon soils have vertic properties in the upper part of the solum. Sumter soils are fine-loamy and have carbonatic mineralogy.
- The somewhat poorly drained Leeper and moderately well drained Marietta soils are on flood plains.
- The Troup soils are on ridges and side slopes at higher elevations than the Brantley soils and have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Brantley sandy loam, 2 to 8 percent slopes; about 2 miles west of Naftel; 2,300 feet east and 2,600 feet north of the southwest corner of sec. 13, T. 12 N., R. 17 E.; USGS Sellers topographic quadrangle; lat. 32 degrees 0 minutes 42 seconds N. and long. 86 degrees 19 minutes 2 seconds W.

Ap—0 to 3 inches; dark yellowish brown (10YR 4/4) sandy loam; moderate fine granular structure; very friable; many fine and medium roots; strongly acid; clear smooth boundary.
AE—3 to 10 inches; yellowish brown (10YR 5/4) sandy loam; weak coarse subangular blocky structure; very friable; many fine and medium roots; strongly acid; gradual wavy boundary.
Bt1—10 to 25 inches; red (2.5YR 4/6) sandy clay; moderate medium subangular blocky structure; firm; few fine, medium, and coarse roots; few faint clay films on faces of peds; few fine flakes of mica; strongly acid; gradual wavy boundary.
Bt2—25 to 38 inches; red (2.5YR 5/6) sandy clay loam; moderate medium subangular blocky structure; firm; common distinct clay films on faces of peds; few fine flakes of mica; very strongly acid; gradual wavy boundary.
BC—38 to 48 inches; yellowish red (5YR 5/6) sandy clay loam; weak coarse subangular blocky structure; few distinct clay films on faces of peds; few fine flakes of mica; very strongly acid; gradual wavy boundary.
C1—48 to 58 inches; stratified strong brown (7.5YR 5/8) sandy loam and yellowish red (5YR 5/6) loamy sand; massive; very friable; common fine flakes of mica; very strongly acid; gradual wavy boundary.

C2—58 to 80 inches; stratified yellowish brown (10YR 5/6) sandy loam and loamy sand; massive; very friable; common fine flakes of mica; few medium distinct yellowish red (5YR 5/6) masses of iron accumulation; few fine faint pale brown (10YR 6/3) iron depletions; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 50 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4

E or AE horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 or 4
Texture—fine sandy loam, sandy loam, or loamy sand

Bt horizon (upper part):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—clay loam, clay, or sandy clay

Bt horizon (lower part):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—clay loam, sandy clay loam, clay, or sandy clay

BC horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8
Texture—clay loam, sandy clay loam, or sandy loam
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

C horizon:
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of yellow, red, brown, and gray
Texture—sandy loam, sandy clay loam, loam, or loamy sand or stratified with these textures
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Casemore Series

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Moderate
Parent material: Loamy sediments
Landform: Low stream terraces
Landform position: Flat and slightly concave slopes
Slope: 0 to 1 percent
Taxonomic class: Fine-loamy, mixed, superactive, thermic Aquic Paleudalfs

Commonly Associated Soils

Brantley, Hannon, Leeper, Marietta, and Sumter soils are commonly associated with the Casemore series.

- The clayey Brantley and Hannon soils are on ridges and side slopes at higher elevations than the Casemore soils.

- The clayey Leeper soils and the moderately well drained Marietta soils are on flood plains.
- The Sumter soils are on side slopes at higher elevations than the Casemore soils and are alkaline throughout.

Typical Pedon

Typical pedon of Casemore loam, 0 to 1 percent slopes, rarely flooded; about 1.5 miles southwest of Sellers; 475 feet west and 1,080 feet north of the southeast corner of sec. 2, T. 12 N., R. 17 E.; USGS Sellers topographic quadrangle; lat. 32 degrees 2 minutes 27 seconds N. and long. 86 degrees 19 minutes 19 seconds W.

Ap—0 to 3 inches; brown (10YR 4/3) loam; moderate medium granular structure; friable; few fine roots; moderately acid; clear smooth boundary.

EB—3 to 7 inches; light olive brown (2.5Y 5/4) loam; weak medium subangular blocky structure; friable; few fine roots; moderately acid; clear wavy boundary.

Bt1—7 to 13 inches; light olive brown (2.5Y 5/4) sandy clay loam; weak medium subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; common medium distinct dark yellowish brown (10YR 4/6) masses of iron accumulation; few fine distinct grayish brown (2.5Y 5/2) iron depletions; strongly acid; clear wavy boundary.

Bt2—13 to 19 inches; light yellowish brown (2.5Y 6/4) sandy clay loam; weak medium subangular blocky structure; firm; common fine and medium roots; common distinct clay films on faces of peds; few medium prominent strong brown (7.5YR 5/8) masses of iron accumulation; common medium distinct gray (10YR 6/1) iron depletions; strongly acid; gradual wavy boundary.

Bt3—19 to 30 inches; light olive brown (2.5Y 5/3) sandy clay loam; moderate medium subangular blocky structure; firm; common fine and medium roots; common distinct clay films on faces of peds; common medium prominent reddish yellow (5YR 6/8) masses of iron accumulation; many fine and medium faint grayish brown (2.5Y 5/2) iron depletions; strongly acid; gradual wavy boundary.

Btg1—30 to 45 inches; light brownish gray (2.5Y 6/2) sandy clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common distinct clay films on faces of peds; few medium prominent strong brown (7.5YR 5/8) masses of iron accumulation; strongly acid; gradual wavy boundary.

Btg2—45 to 65 inches; gray (2.5Y 6/1) sandy clay loam; moderate medium subangular blocky structure; firm; few fine roots; common distinct clay films on faces of peds; common medium prominent yellowish red (5YR 5/6) and strong brown (7.5YR 5/6) masses of iron accumulation; neutral; gradual wavy boundary.

Btg3—65 to 80 inches; light gray (2.5Y 7/1) sandy clay loam; weak coarse subangular blocky structure; firm; common distinct clay films on faces of peds; common medium prominent strong brown (7.5YR 5/8) masses of iron accumulation; neutral.

Range in Characteristics

Thickness of the solum: More than 60 inches

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4
Reaction—very strongly acid to neutral

EB or BE horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 or 4
Texture—loam, sandy loam, or sandy clay loam
Reaction—very strongly acid to neutral

Bt horizon:

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 8
Texture—loam, sandy clay loam, or clay loam
Redoximorphic features—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red
Reaction—very strongly acid to moderately acid

Btg horizon (where present):

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of brown, red, gray, and yellow
Texture—loam, sandy clay loam, or clay loam
Redoximorphic features—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red
Reaction—very strongly acid to slightly alkaline

Compass Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Moderately slow
Parent material: Loamy sediments
Landform: Ridges and stream terraces
Landform position: Summits
Slope: 1 to 3 percent
Taxonomic class: Coarse-loamy, siliceous, subactive, thermic Plinthic Paleudults (fig. 12)

Commonly Associated Soils

Bonifay, Cowarts, Fuquay, and Orangeburg soils are commonly associated with the Compass series.

- The Bonifay and Fuquay soils are commonly on summits and side slopes at higher elevations than the Compass soils and have a thick, sandy epipedon.
- The Cowarts soils are on side slopes and are fine-loamy.
- The Orangeburg soils are on summits and side slopes at higher elevations than the Compass soils, have a reddish kandic horizon, and are fine-loamy.

Typical Pedon

Typical pedon of Compass loamy sand, 1 to 3 percent slopes; about 1 mile north of Luverne; 400 feet west and 1,800 feet south of the northeast corner of sec. 19, T. 9 N., R. 18 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 45 minutes 0 seconds N. and long. 86 degrees 17 minutes 30 seconds W.

Ap—0 to 10 inches; brown (10YR 4/3) loamy sand; weak fine granular structure; very friable; many fine and few medium roots; strongly acid; clear smooth boundary.
BE—10 to 15 inches; yellowish brown (10YR 5/4) sandy loam; weak medium subangular blocky structure; very friable; common fine roots; strongly acid; clear wavy boundary.
Bt1—15 to 27 inches; brownish yellow (10YR 6/6) sandy loam; weak medium subangular blocky structure; friable; common fine roots; few faint clay films on faces of peds; few fine distinct reddish yellow (7.5YR 6/6) masses of iron accumulation; few fine distinct pale brown (10YR 6/3) iron depletions; very strongly acid; gradual wavy boundary.
Bt2—27 to 37 inches; brownish yellow (10YR 6/8) sandy loam; weak medium

Figure 12.—A profile of a Compass soil. Compass soils are moderately well drained and are on summits of ridges and high stream terraces. They have an argillic horizon of brownish yellow sandy loam and sandy clay loam. The lower part of the argillic horizon has masses of reddish, nodular plinthite and has grayish iron depletions.

subangular blocky structure; friable; common fine roots; few faint clay films on faces of peds; about 2 percent masses of nodular plinthite; about 5 percent fine ironstone pebbles; few fine distinct reddish yellow (7.5YR 6/6) masses of iron accumulation; few fine distinct very pale brown (10YR 7/4) iron depletions; very strongly acid; gradual wavy boundary.

Btv1—37 to 48 inches; brownish yellow (10YR 6/6) sandy loam; moderate medium subangular blocky structure; friable; common faint clay films on faces of peds; about 5 percent masses of nodular plinthite; about 5 percent fine ironstone pebbles; common medium prominent light gray (10YR 7/2) iron depletions; common medium prominent reddish yellow (7.5YR 6/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btv2—48 to 57 inches; brownish yellow (10YR 6/8) sandy clay loam; moderate medium subangular blocky structure; friable; common faint clay films on faces of peds; about 10 percent masses of nodular plinthite; about 10 percent fine ironstone pebbles; common medium distinct gray (10YR 6/1) iron depletions; common medium distinct strong brown (7.5YR 4/6) and red (2.5YR 4/6) masses of iron accumulation; very strongly acid, clear wavy boundary.

Btv3—57 to 75 inches; 40 percent reddish yellow (7.5YR 6/6), 20 percent brownish yellow (10YR 6/6), 20 percent grayish brown (10YR 5/2), and 20 percent red (2.5YR 4/6) sandy clay loam; moderate coarse subangular blocky structure; firm; common faint clay films on faces of peds; about 15 percent masses of nodular plinthite; about 12 percent fine ironstone pebbles; areas of grayish brown are iron depletions; very strongly acid; gradual wavy boundary.

Btv4—75 to 80 inches; 40 percent reddish yellow (7.5YR 6/6), 25 percent red (2.5YR 4/6), 20 percent grayish brown (10YR 5/2), and 15 percent brownish yellow (10YR 6/6) sandy clay loam; weak coarse subangular blocky structure; firm; common faint clay films on faces of peds; about 10 percent masses of nodular plinthite; about 5 percent fine pebbles of quartzite and ironstone; areas of grayish brown are iron depletions; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Content of plinthite: 5 to 25 percent in the Btv horizon
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

BE horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 6
Texture—sandy loam or fine sandy loam

Bt horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8
Texture—sandy loam or fine sandy loam
Redoximorphic features—iron or clay depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Btv horizon (upper part):
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 6 to 8
Texture—sandy loam, fine sandy loam, or sandy clay loam
Redoximorphic features—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Btv horizon (lower part):
Color—no dominant matrix color and multicolored in shades of brown, red, gray, and yellow
Texture—sandy clay loam, clay loam, or sandy clay

Cowarts Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Parent material: Loamy sediments
Landform: Ridges and hillslopes
Landform position: Side slopes
Slope: 5 to 20 percent
Taxonomic class: Fine-loamy, kaolinitic, thermic Typic Kanhapludults

Commonly Associated Soils

Bonifay, Dothan, Fuquay, Orangeburg, Springhill, and Troup soils are commonly associated with the Cowarts series.

- The Bonifay, Fuquay, and Troup soils are on summits and side slopes and have a thick, sandy epipedon.
- The Dothan soils are on summits of ridges and smoothly sloping side slopes and have a significant accumulation of plinthite in the subsoil.
- The Orangeburg soils are on summits and side slopes and have a thick, reddish kandic horizon.
- The Springhill soils are in positions similar to those of the Cowarts soil but have a reddish kandic horizon.

Typical Pedon

Typical pedon of Cowarts sandy loam, in an area of Cowarts-Troup complex, 8 to 20 percent slopes; about 2.5 miles northeast of Panola; 1,000 feet east and 1,320 feet north of the southwest corner of sec. 27, T. 12 N., R. 17 E.; USGS Lapine topographic quadrangle; lat. 31 degrees 58 minutes 58 seconds N. and long. 86 degrees 21 minutes 2 seconds W.

Ap—0 to 4 inches; dark grayish brown (10YR 4/2) sandy loam; weak medium granular structure; very friable; common coarse and many fine roots; strongly acid; clear smooth boundary.

EB—4 to 10 inches; yellowish brown (10YR 5/4) sandy loam; weak fine granular structure; very friable; common coarse and many fine roots; very strongly acid; clear smooth boundary.

Bt1—10 to 28 inches; yellowish brown (10YR 5/6) sandy clay loam; moderate medium subangular blocky structure; friable; common fine, medium, and coarse roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—28 to 36 inches; yellowish brown (10YR 5/6) sandy clay loam; moderate medium subangular blocky structure; friable; common fine, medium, and coarse roots; common faint clay films on faces of peds; common fine flakes of mica; few medium distinct yellowish red (5YR 5/6) masses of iron accumulation; few fine faint pale brown (10YR 6/3) iron depletions; very strongly acid; clear wavy boundary.

BC—36 to 44 inches; brownish yellow (10YR 6/6) sandy loam; weak coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; few fine ironstone pebbles; many fine flakes of mica; common fine distinct light gray (10YR 7/2) iron depletions; very strongly acid; clear wavy boundary.

C1—44 to 58 inches; yellowish brown (10YR 5/6) sandy loam; massive; thinly bedded; firm; few fine ironstone pebbles; many mica flakes; common medium distinct yellowish red (5YR 5/6) masses of iron accumulation; many medium distinct light gray (10YR 7/2) iron depletions; very strongly acid; gradual wavy boundary.

C2—58 to 70 inches; yellowish red (5YR 5/6) sandy loam; massive; thinly bedded; firm; few fine ironstone pebbles; few thin strata of sandy clay loam; many fine flakes of mica; common medium distinct yellowish brown (10YR 5/6) and red (2.5YR 4/6) masses of iron accumulation; common medium distinct light gray (10YR 7/2) iron depletions; very strongly acid; gradual wavy boundary.

C3—70 to 80 inches; yellowish brown (10YR 5/6) sandy loam; massive; thinly bedded; firm; many fine flakes of mica; common medium distinct red (2.5YR 4/6) and yellowish red (5YR 5/6) masses of iron accumulation; common medium distinct light brownish gray (10YR 6/2) iron depletions; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 50 inches
Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

EB or BE horizon (where present):
Color—hue of 10YR, value of 5, and chroma of 3 or 4
Texture—sandy loam or fine sandy loam

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—commonly sandy clay loam; sandy clay or sandy loam in thin subhorizons in some pedons
Redoximorphic features (where present)—iron depletions in shades of brown and masses of iron accumulation in shades of brown, yellow, or red

BC horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—sandy loam or sandy clay loam
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

C horizon:
Color—hue of 2.5YR to 10YR, value of 5 or 6, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of red, brown, and gray
Texture—sandy loam or sandy clay loam; thin strata or pockets of finer or coarser textured material in many pedons
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Dothan Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Parent material: Loamy sediments

Landform: Ridges and high stream terraces
Landform position: Summits, shoulder slopes, and backslopes
Slope: 0 to 8 percent
Taxonomic class: Fine-loamy, kaolinitic, thermic Plinthic Kandiudults (fig. 13)

Commonly Associated Soils

Bonifay, Cowarts, Fuquay, Orangeburg, and Springhill soils are commonly associated with the Dothan series.

- The Bonifay and Fuquay soils are in positions similar to those of the Dothan soils but have a thick, sandy epipedon.
- The Cowarts and Springhill soils are on dissected side slopes and do not have a significant accumulation of plinthite in the subsoil. Also, the Springhill soils have a reddish kandic horizon.
- The Orangeburg soils are on summits and side slopes at slightly higher elevations than the Dothan soils and do not have a significant accumulation of plinthite in the subsoil.

Typical Pedon

Typical pedon of Dothan sandy loam, 2 to 5 percent slopes; about 5 miles east of Luverne; 1,280 feet east and 2,200 feet north of the southwest corner of sec. 19, T. 9 N., R. 19 E.; USGS Glenwood topographic quadrangle; lat. 31 degrees 45 minutes 10 seconds N. and long. 86 degrees 11 minutes 30 seconds W.

Ap1—0 to 2 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable; many fine roots; strongly acid; clear smooth boundary.

Ap2—2 to 9 inches; brown (10YR 5/3) sandy loam; weak fine granular structure; very friable; many fine roots; strongly acid; abrupt smooth boundary.

Bt1—9 to 20 inches; brownish yellow (10YR 6/6) sandy clay loam; moderate medium subangular blocky structure; friable; many fine roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—20 to 35 inches; brownish yellow (10YR 6/8) sandy clay loam; moderate medium subangular blocky structure; friable; common fine roots; common faint clay films on faces of peds; few medium prominent yellowish red (5YR 5/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btv1—35 to 48 inches; brownish yellow (10YR 6/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine roots; common faint clay films on faces of peds; about 10 percent masses of nodular plinthite; about 3 percent fine ironstone pebbles; common medium prominent yellowish red (5YR 5/6) masses of iron accumulation; common fine faint pale brown (10YR 6/3) iron depletions; very strongly acid; clear wavy boundary.

Btv2—48 to 65 inches; strong brown (7.5YR 5/6) sandy clay loam; moderate medium subangular blocky structure; firm; common faint clay films on faces of peds; about 10 percent masses of nodular plinthite; about 5 percent fine ironstone pebbles; common medium distinct light brownish gray (10YR 6/2) iron depletions; common medium prominent red (2.5YR 4/8) masses of iron accumulation; very strongly acid.

Btv3—65 to 80 inches; strong brown (7.5YR 5/8) sandy clay loam; weak coarse subangular blocky structure; firm; common faint clay films on faces of peds; about 15 percent masses of nodular plinthite; about 10 percent fine ironstone pebbles; common medium prominent yellowish red (5YR 5/6) and red (2.5YR 4/6) masses of iron accumulation; common medium distinct light brownish gray (10YR 6/2) iron depletions; very strongly acid.

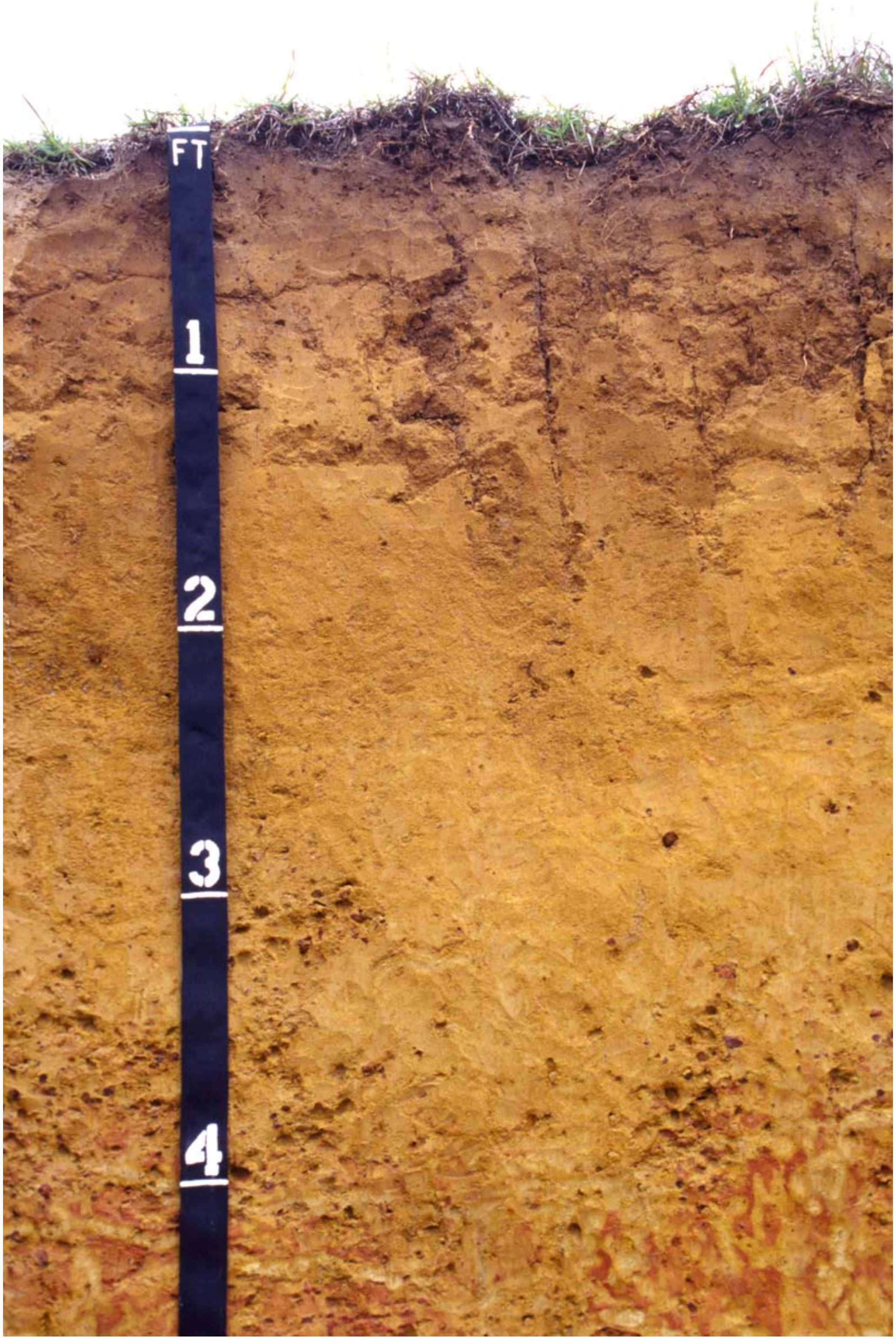


Figure 13.—A profile of a Dothan soil. Dothan soils are well drained and are on summits and side slopes on high terraces and ridges. They have a kandic horizon of brownish yellow sandy clay loam. The lower part of the kandic horizon has masses of reddish, nodular plinthite and has grayish iron depletions.

Range in Characteristics

Thickness of the solum: More than 60 inches
Content of plinthite: 5 to 25 percent in the Btv horizon
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Bt horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8
Texture—commonly sandy clay loam; fine sandy loam in thin subhorizons in some pedons
Redoximorphic features (where present)—masses of iron accumulation in shades of brown, yellow, or red

Btv horizon:
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 6 or 8; or no dominant matrix color and multicolored in shades of red, brown, yellow, and gray
Texture—commonly sandy clay loam, but ranges to sandy clay or clay loam in the lower part
Redoximorphic features—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, or red

Eunola Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Moderate
Parent material: Loamy alluvium
Landform: Low stream terraces
Landform position: Convex slopes
Slope: 0 to 2 percent
Taxonomic class: Fine-loamy, siliceous, semiactive, thermic Aquic Hapludults

Commonly Associated Soils

Bethera, Bonneau, Ocilla, Pelham, and Rains soils are commonly associated with the Eunola series.

- The poorly drained Bethera and Rains soils are on terraces at lower elevations than the Eunola soils.
- The Bonneau, Ocilla, and Pelham soils are on terraces at higher elevations than the Eunola soils and have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Eunola sandy loam, 0 to 2 percent slopes, rarely flooded; about 1 mile south of Mulberry; 2,000 feet east of the southwest corner of sec. 11, T. 7 N., R. 16 E.; USGS Leon topographic quadrangle; lat. 31 degrees 35 minutes 1 second N. and long. 86 degrees 25 minutes 28 seconds W.

Ap1—0 to 3 inches; dark brown (10YR 3/3) sandy loam; moderate medium granular structure; very friable; common fine and medium roots; strongly acid; abrupt smooth boundary.

Ap2—3 to 6 inches; brown (10YR 4/3) sandy loam; weak medium subangular blocky structure; very friable; common fine and medium roots; very strongly acid; clear wavy boundary.

E—6 to 10 inches; light yellowish brown (2.5Y 6/4) fine sandy loam; weak coarse subangular blocky structure; very friable; common fine and medium roots; very strongly acid; clear wavy boundary.

Bt1—10 to 16 inches; light olive brown (2.5Y 5/4) sandy clay loam; moderate medium subangular blocky structure; friable; common fine and medium roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—16 to 23 inches; light olive brown (2.5Y 5/6) sandy clay loam; moderate medium subangular blocky structure; friable; common fine roots; common faint clay films on faces of peds; common fine prominent yellowish red (5YR 5/6) masses of iron accumulation; few medium distinct light brownish gray (10YR 6/2) iron depletions; extremely acid; gradual wavy boundary.

Bt3—23 to 32 inches; yellowish brown (10YR 5/6) sandy clay loam; weak coarse prisms parting to moderate medium subangular blocky structure; friable; common fine and medium roots; common faint clay films on faces of peds; few fine soft masses of iron and manganese oxides; few medium distinct gray (10YR 6/1) iron depletions; common prominent yellowish red (5YR 5/6) masses of iron accumulation; extremely acid; gradual wavy boundary.

Bt4—32 to 46 inches; brownish yellow (10YR 6/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine roots; common faint clay films on faces of peds; common medium prominent red (2.5YR 4/6) masses of iron accumulation; common fine distinct light brownish gray (10YR 6/2) iron depletions; very strongly acid; gradual wavy boundary.

BC—46 to 53 inches; 45 percent brownish yellow (10YR 6/6), 35 percent strong brown (7.5YR 5/6), and 20 percent light brownish gray (10YR 6/2) fine sandy loam; weak coarse subangular blocky structure; friable; few fine roots; areas of light brownish gray are iron depletions; very strongly acid; gradual wavy boundary.

C1—53 to 64 inches; 45 percent yellowish brown (10YR 5/8), 35 percent light brownish gray (10YR 6/2), and 20 percent strong brown (7.5YR 5/6) fine sandy loam; massive; friable; many fine flakes of mica; areas of light brownish gray are iron depletions; very strongly acid; gradual wavy boundary.

C2—64 to 80 inches; 45 percent yellowish brown (10YR 5/6), 35 percent gray (10YR 6/1), and 20 percent strong brown (7.5YR 5/8) sandy clay loam; massive; firm; many fine flakes of mica; areas of gray are iron depletions; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 40 inches

Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:

Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 to 4

E horizon (where present):

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 or 4

Texture—sandy loam, loamy fine sand, or fine sandy loam

Bt horizon (upper part):

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8

Texture—sandy clay loam, clay loam, or loam

Redoximorphic features (where present)—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Bt horizon (lower part):

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of brown, yellow, red, and gray

Texture—sandy clay loam, clay loam, or sandy clay
Redoximorphic features—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

BC horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of brown, yellow, red, and gray
Texture—sandy loam, fine sandy loam, or loam
Redoximorphic features—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

C horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of brown, yellow, red, and gray
Texture—commonly sandy loam, fine sandy loam, loam, or sandy clay loam; sand or loamy sand in some pedons
Redoximorphic features—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Faceville Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Clayey sediments
Landform: Ridges
Landform position: Summits, shoulder slopes, and backslopes
Slope: 2 to 5 percent
Taxonomic class: Fine, kaolinitic, thermic Typic Kandiudults

Commonly Associated Soils

Greenville, Nankin, Orangeburg, and Springhill soils are commonly associated with the Faceville series.

- The Greenville soils are in positions similar to those of the Faceville soils but have a dark red or dark reddish brown kandic horizon.
- The Nankin and Springhill soils are on dissected side slopes. The Nankin soils have a significant decrease in the content of clay within a depth of 60 inches. The Springhill soils are fine-loamy.
- The Orangeburg soils are in positions similar to those of the Faceville soils but are fine-loamy.

Typical Pedon

Typical pedon of Faceville fine sandy loam, 2 to 5 percent slopes; about 2 miles west of Rutledge; 2,200 feet south and 1,200 west of the northeast corner of sec. 4, T. 8 N., R. 17 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 41 minutes 52 seconds N. and long. 86 degrees 21 minutes 34 seconds W.

Ap1—0 to 3 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; very friable; common fine roots; strongly acid; clear smooth boundary.
Ap2—3 to 8 inches; yellowish brown (10YR 5/4) fine sandy loam; weak medium granular structure; very friable; common fine roots; strongly acid; clear wavy boundary.
Bt1—8 to 20 inches; yellowish red (5YR 4/6) sandy clay; moderate medium

subangular blocky structure; firm; few fine roots; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—20 to 32 inches; red (2.5YR 5/6) sandy clay; moderate medium subangular blocky structure; firm; few fine roots; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt3—32 to 45 inches; red (2.5YR 5/6) sandy clay; moderate medium subangular blocky structure; firm; few fine roots; common distinct clay films on faces of peds; few medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bt4—45 to 60 inches; red (2.5YR 4/6) sandy clay; moderate medium subangular blocky structure; firm; common distinct clay films on faces of peds; few medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bt5—60 to 80 inches; red (2.5YR 4/6) sandy clay; weak coarse subangular blocky structure; firm; common distinct clay films on faces of peds; common medium distinct dark red (10R 3/6) and strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches

Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

Ap horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4

Bt horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8

Texture—clay or sandy clay

Fuquay Series

Depth class: Very deep

Drainage class: Well drained

Permeability: Rapid in the surface and subsurface layers and moderately slow in the subsoil

Parent material: Sandy and loamy sediments

Landform: Ridges and high stream terraces

Landform position: Summits, shoulder slopes, and backslopes

Slope: 0 to 8 percent

Taxonomic class: Loamy, kaolinitic, thermic Arenic Plinthic Kandiudults (fig. 14)

Commonly Associated Soils

Bonifay, Compass, Cowarts, and Dothan soils are commonly associated with the Fuquay series.

- The Bonifay soils are in positions similar to those of the Fuquay soils but have a sandy epipedon that ranges from 40 to 80 inches in thickness.
- The Compass and Dothan soils are in positions similar to those of the Fuquay soils but do not have a thick, sandy epipedon.
- The Cowarts soils are on dissected side slopes and do not have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Fuquay loamy fine sand, 0 to 5 percent slopes; about 2 miles north of Leon; 3,000 feet west and 200 feet south of the northeast corner of sec. 30,

Figure 14.—A profile of a Fuquay soil. Fuquay soils are well drained and are on summits and side slopes of high terraces and ridges. They have a kandic horizon of brownish yellow sandy loam and sandy clay loam underlying an epipedon of loamy fine sand. The epipedon ranges from 20 to 40 inches in thickness. The lower part of the kandic horizon has masses of reddish, nodular plinthite and has grayish iron depletions.

T. 8 N., R. 16 E.; USGS Leon topographic quadrangle; lat. 31 degrees 37 minutes 30 seconds N. and long. 86 degrees 29 minutes 30 seconds W.

Ap—0 to 4 inches; grayish brown (10YR 5/2) loamy fine sand; weak fine granular structure; very friable; many fine roots; slightly acid; abrupt smooth boundary.

E1—4 to 10 inches; yellowish brown (10YR 5/4) loamy fine sand; weak fine granular structure; very friable; many fine roots; moderately acid; clear smooth boundary.

E2—10 to 30 inches; brownish yellow (10YR 6/6) loamy fine sand; weak coarse subangular blocky structure; very friable; common fine and medium roots; common thin streaks of uncoated sand; moderately acid; clear wavy boundary.

Bt1—30 to 40 inches; brownish yellow (10YR 6/8) sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; few faint clay films on faces of peds; very strongly acid; clear wavy boundary.

Bt2—40 to 53 inches; yellowish brown (10YR 5/8) sandy clay loam; weak medium subangular blocky structure; friable; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Btv1—53 to 68 inches; strong brown (7.5YR 5/8) sandy clay loam; moderate medium subangular blocky structure; firm; common faint clay films on faces of peds; about 5 percent masses of nodular plinthite; common medium prominent red (2.5YR 4/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btv2—68 to 80 inches; 30 percent yellowish brown (10YR 5/6), 30 percent strong brown (7.5YR 5/6), 20 percent light brownish gray (10YR 6/2), and 20 percent red (2.5YR 4/6) sandy clay loam; weak coarse subangular blocky structure; firm; common faint clay films on faces of peds; about 10 percent masses of nodular plinthite; areas of light brownish gray are iron depletions; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Thickness of the sandy epipedon: 20 to 40 inches
Content of plinthite: 5 to 25 percent in the Btv horizon
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface and subsurface layers in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4

E horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 6
Texture—loamy fine sand, loamy sand, or sand

Bt horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8
Texture—sandy loam or sandy clay loam
Redoximorphic features (where present)—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Btv horizon:
Color—hue of 2.5YR to 10YR, value of 5 or 6, and chroma of 6 to 8; or no dominant matrix color and multicolored in shades of yellow, red, gray, and brown
Texture—sandy clay loam, clay loam, or sandy clay
Redoximorphic features—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Greenville Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Clayey sediments
Landform: Ridges
Landform position: Summits, shoulder slopes, and backslopes
Slope: 0 to 15 percent
Taxonomic class: Fine, kaolinitic, thermic Rhodic Kandiudults (fig. 15)

Commonly Associated Soils

Faceville, Nankin, Orangeburg, Red Bay, and Springhill soils are commonly associated with the Greenville series.

- The Faceville and Red Bay soils are in positions similar to those of the Greenville soils. The Faceville soils do not have a dark red or dark reddish brown kandic horizon. The Red Bay soils are fine-loamy.
- The Nankin and Springhill soils are on dissected side slopes. The Nankin soils do not have a dark red or dark reddish brown kandic horizon. The Springhill soils are fine-loamy.
- The Orangeburg soils are on summits and side slopes at slightly higher elevations than the Greenville soils and are fine-loamy.

Typical Pedon

Typical pedon of Greenville sandy loam, 2 to 5 percent slopes; about 2 miles southwest of Fullers Crossroads; 2,700 feet east and 2,100 feet north of the southwest corner of sec. 27, T. 10 N., R. 17 E.; USGS Fullers Crossroads topographic quadrangle; lat. 31 degrees 48 minutes 10 seconds N. and long. 86 degrees 21 minutes 20 seconds W.

Ap—0 to 8 inches; reddish brown (5YR 4/4) sandy loam; moderate medium granular structure; friable; common fine and medium roots; moderately acid; clear smooth boundary.

Bt1—8 to 40 inches; dark reddish brown (2.5YR 3/4) sandy clay; moderate medium subangular blocky structure; firm; few fine roots; common distinct clay films on faces of peds; strongly acid; gradual wavy boundary.

Bt2—40 to 80 inches; dark red (10R 3/6) sandy clay; moderate medium subangular blocky structure; firm; common distinct clay films on faces of peds; strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 5YR or 7.5YR, value of 3 or 4, and chroma of 4 to 6

Bt horizon:
Color—hue of 10R or 2.5YR, value of 2 or 3, and chroma of 4 to 6
Texture—sandy clay or clay

Figure 15.—A profile of a Greenville soil. Greenville soils are very deep, are clayey, and are dark reddish brown or dark red throughout the subsoil. They formed in thick deposits of clayey sediments. They are on summits and side slopes of ridges.

Halso Series

Depth class: Deep
Drainage class: Moderately well drained
Permeability: Very slow
Parent material: Clayey marine sediments
Landform: Ridges and hillslopes
Landform position: Summits and side slopes
Slope: 2 to 20 percent
Taxonomic class: Fine, smectitic, thermic Vertic Hapludults

Commonly Associated Soils

Arundel, Fuquay, Lucy, and Luverne soils are commonly associated with the Halso series.

- The moderately deep Arundel soils are in positions similar to those of the Halso soils but are at lower elevations.
- The Fuquay and Lucy soils are on summits and side slopes at higher elevations than the Halso soils and have a thick, sandy epipedon.
- The very deep, well drained Luverne soils are in positions similar to those of the Halso soils.

Typical Pedon

Typical pedon of Halso fine sandy loam, 8 to 20 percent slopes, eroded; about 3 miles south of Luverne; 2,100 feet east and 300 feet south of the northwest corner of sec. 29, T. 8 N., R. 18 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 38 minutes 18 seconds N. and long. 86 degrees 16 minutes 38 seconds W.

Ap—0 to 5 inches; brown (10YR 5/3) fine sandy loam; weak medium granular structure; friable; many fine and medium roots; strongly acid; abrupt smooth boundary.

Bt1—5 to 15 inches; yellowish red (5YR 4/6) clay; strong fine and medium angular blocky structure; firm; common fine and medium roots; few faint clay films on faces of peds; many pressure faces; very strongly acid; gradual wavy boundary.

Bt2—15 to 25 inches; yellowish red (5YR 4/6) clay; strong fine and medium angular blocky structure; firm; common fine and medium roots; few faint clay films on faces of peds; many pressure faces; few fine distinct light yellowish brown (2.5Y 6/3) and light brownish gray (10YR 6/2) iron depletions; very strongly acid; gradual wavy boundary.

Bt3—25 to 34 inches; yellowish red (5YR 4/6) clay; strong fine and medium angular blocky structure; firm; few fine, medium, and coarse roots; few faint clay films on faces of peds; many pressure faces; common medium distinct light yellowish brown (2.5Y 6/3) and light brownish gray (10YR 6/2) iron depletions; very strongly acid; gradual wavy boundary.

BC—34 to 43 inches; strong brown (7.5YR 5/6) clay; weak coarse angular blocky structure; firm; few fine roots; many pressure faces; common medium distinct yellowish brown (10YR 5/8) masses of iron accumulation; common medium distinct light brownish gray (10YR 6/2) iron depletions in horizontal bands; very strongly acid; clear irregular boundary.

C/B—43 to 52 inches; 80 percent gray (10YR 6/1) clay (C); weak thin platy rock structure; firm; 20 percent yellowish red (5YR 4/6) clay (B); weak medium angular blocky structure; firm; common medium distinct reddish yellow (7.5YR 6/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Cr—52 to 80 inches; gray (10YR 5/1) clayey shale; strong thick platy rock structure; very firm; many medium and coarse prominent strong brown (7.5YR 5/6), red

(2.5YR 4/6), and light olive brown (2.5Y 5/6) masses of iron accumulation on structural surfaces; very strongly acid.

Range in Characteristics

Thickness of the solum: 30 to 50 inches
Depth to bedrock: 40 to 60 inches to soft shale or clayey, shale-like sediments
Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4

BA or BE horizon (where present):
Color—hue of 5YR or 7.5YR, value of 4 to 6, and chroma of 3 or 4
Texture—clay loam, silty clay loam, or loam

Bt horizon and B part of the C/B horizon:
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—clay or silty clay
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

BC horizon (where present):
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 2 to 6; or no dominant matrix color and multicolored in shades of gray, red, brown, or yellow
Texture—clay, clay loam, silty clay loam, or silty clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

C horizon and C part of the C/B horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 to 6
Texture—clay, clay loam, silty clay loam, or silty clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Cr horizon:
Type of bedrock—weathered shale or shale-like sediments; massive or platy rock structure
Other distinctive features—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

Hannon Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Very slow
Parent material: Acid, clayey sediments and the underlying beds of thinly stratified, alkaline, loamy and clayey sediments, chalk, and marl
Landform: Ridges, hillslopes, and knolls
Landform position: Summits, shoulder slopes, and backslopes
Slope: 2 to 35 percent
Taxonomic class: Fine, smectitic, thermic Chromic Hapluderts

Commonly Associated Soils

Brantley, Leeper, Marietta, and Sumter soils are commonly associated with the Hannon series.

- The Brantley soils are on summits and side slopes at higher elevations than the Hannon soils and are acid throughout.
- The clayey Leeper and loamy Marietta soils are on flood plains.
- The moderately deep Sumter soils are in positions similar to those of the Hannon soils but are fine-loamy.

Typical Pedon

Typical pedon of Hannon clay, in an area of Hannon-Sumter complex, 2 to 8 percent slopes, eroded; about 1.9 miles southwest of Sellers; 600 feet east and 2,050 feet south of the northwest corner of sec. 12, T. 12 N., R. 17 E.; USGS Lapine topographic quadrangle; lat. 32 degrees 1 minute 56 seconds N. and long. 86 degrees 19 minutes 6 seconds W.

A—0 to 3 inches; very dark gray (7.5YR 3/1) clay; weak medium subangular blocky structure; firm; many fine and medium roots; extremely acid; clear wavy boundary.

Btss1—3 to 12 inches; yellowish red (5YR 4/6) clay; strong fine and medium angular blocky structure; firm; common fine and medium roots; common intersecting slickensides that have distinct polished and grooved surfaces; few faint clay films on faces of peds and in pores; very strongly acid; clear wavy boundary.

Btss2—12 to 18 inches; strong brown (7.5YR 5/6) clay; strong fine and medium angular blocky structure; firm; common fine and medium roots; common intersecting slickensides that have distinct polished and grooved surfaces; few faint clay films on faces of peds and in pores; few fine distinct light yellowish brown (2.5Y 6/3) iron depletions; few fine distinct yellowish red (5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btss3—18 to 22 inches; light olive brown (2.5Y 5/6) clay; strong fine and medium angular blocky structure; firm; few fine, medium, and coarse roots; few faint clay films on faces of peds and in pores; common large intersecting slickensides that have distinct polished and grooved surfaces; common medium and coarse distinct light grayish brown (2.5Y 5/2) iron depletions on surfaces of peds; common medium prominent yellowish red (5YR 5/8) masses of iron accumulation; strongly acid; gradual wavy boundary.

BC—22 to 27 inches; light olive brown (2.5Y 5/6) clay loam; moderate fine and medium angular blocky structure; firm; few medium and coarse roots; few distinct clay films on faces of peds; common medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; many fine and medium soft masses of calcium carbonate; strongly effervescent; neutral; gradual wavy boundary.

C1—27 to 34 inches; light yellowish brown (2.5Y 6/4) clay loam; moderate medium platy rock structure parting to moderate medium and coarse angular blocky; firm; many very fine flakes of mica; many medium soft masses of calcium carbonate; strongly effervescent; slightly alkaline; gradual wavy boundary.

C2—34 to 44 inches; light olive brown (2.5Y 5/6) sandy clay loam; moderate medium platy rock structure parting to moderate medium and coarse angular blocky structure; firm; many medium soft masses of calcium carbonate; common medium prominent reddish yellow (7.5YR 6/8) masses of iron accumulation; moderately alkaline; strongly effervescent; gradual wavy boundary.

C3—44 to 61 inches; sandy clay loam, brownish yellow (10YR 6/8) interior and light yellowish brown (2.5Y 6/3) exterior; moderate medium platy rock structure; firm; many fractures; common medium distinct reddish yellow (7.5YR 6/8) masses of iron accumulation; moderately alkaline; strongly effervescent; gradual wavy boundary.

C4—61 to 80 inches; loam, light olive brown (2.5Y 5/6) interior and light brownish gray (2.5Y 6/2) exterior; moderate medium platy rock structure; firm; many fractures; common medium distinct reddish yellow (7.5YR 6/8) masses of iron accumulation; strongly effervescent; moderately alkaline.

Range in Characteristics

Depth to secondary carbonates: 12 to 30 inches

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 1 to 4
Reaction—extremely acid to neutral

Btss horizon (upper part):
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 6 to 8
Texture—clay, silty clay, or sandy clay
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red
Reaction—very strongly acid to neutral

Btss horizon (lower part):
Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 4 to 8
Texture—clay, silty clay, clay loam, or sandy clay
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red
Reaction—strongly acid to slightly alkaline

BC horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 8; or no dominant matrix color and multicolored in shades of gray, red, brown, or olive
Texture—clay, clay loam, or sandy clay loam
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, olive, or red
Reaction—neutral to moderately alkaline

C horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 8
Texture—clay loam, sandy clay loam, loam, or sandy loam; strata of chalk, marl, or shell in some pedons
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, olive, or red
Reaction—slightly alkaline or moderately alkaline

Iuka Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Moderate
Parent material: Stratified loamy and sandy alluvium
Landform: Flood plains
Landform position: High parts of natural levees
Slope: 0 to 2 percent
Taxonomic class: Coarse-loamy, siliceous, active, acid, thermic Aquic Udifluvents

Commonly Associated Soils

Bibb, Kinston, Mantachie, and Marietta soils and Fluvaquents are commonly associated with the Iuka series.

- The poorly drained Bibb and Kinston soils and the very poorly drained Fluvaquents are in low positions in backswamps.

- The somewhat poorly drained Mantachie and moderately well drained Marietta soils are on natural levees in slightly lower positions than the Iuka soils.

Typical Pedon

Typical pedon of Iuka fine sandy loam, in an area of Mantachie, Kinston, and Iuka soils, 0 to 1 percent slopes, frequently flooded; about 2 miles southwest of Luverne; 2,800 feet north and 2,000 feet west of the southeast corner of sec. 12, T. 8 N., R. 17 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 40 minutes 0 seconds N. and long. 86 degrees 19 minutes 10 seconds W.

A1—0 to 5 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; very friable; common fine, medium, and coarse roots; extremely acid; clear smooth boundary.

A2—5 to 9 inches; yellowish brown (10YR 5/4) fine sandy loam; weak fine subangular blocky structure; friable; common fine, medium, and coarse roots; few fine soft black masses of iron and manganese oxides; extremely acid; gradual wavy boundary.

C1—9 to 18 inches; light yellowish brown (10YR 6/4) fine sandy loam; massive; friable; common fine, medium, and coarse roots; few fine soft black masses of iron and manganese oxides; few fine faint grayish brown (10YR 5/2) iron depletions; extremely acid; gradual wavy boundary.

C2—18 to 30 inches; light yellowish brown (2.5Y 6/4) fine sandy loam; massive; friable; common fine, medium, and coarse roots; few fine flakes of mica; few fine distinct light brownish gray (10YR 6/2) iron depletions; few fine distinct yellowish brown (10YR 5/8) masses of iron accumulation; extremely acid; gradual wavy boundary.

C3—30 to 39 inches; light yellowish brown (2.5Y 6/4) fine sandy loam; massive; friable; few fine and medium roots; many fine flakes of mica; few thin strata of loamy fine sand; common fine distinct light brownish gray (10YR 6/2) iron depletions; few fine prominent yellowish red (5YR 5/6) masses of iron accumulation; extremely acid; gradual wavy boundary.

C4—39 to 49 inches; light yellowish brown (2.5Y 6/4) sandy clay loam; massive; friable; many fine flakes of mica; common medium distinct gray (10YR 6/1) iron depletions; common medium prominent strong brown (7.5YR 5/8) masses of iron accumulation; extremely acid; gradual wavy boundary.

Cg1—49 to 56 inches; gray (2.5Y 6/1) sandy clay loam; massive; friable; few thin strata of loamy fine sand; many fine flakes of mica; few medium prominent strong brown (7.5YR 5/8) and many medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; extremely acid; gradual wavy boundary.

Cg2—56 to 62 inches; gray (2.5Y 6/1) sandy clay loam; massive; friable; common thin strata of loamy fine sand; many fine flakes of mica; common medium prominent strong brown (7.5YR 5/8) and many medium prominent yellowish brown (10YR 5/6) masses of iron accumulation; extremely acid; gradual wavy boundary.

Cg3—62 to 80 inches; gray (2.5Y 6/1) clay loam; massive; friable; many fine flakes of mica; common medium prominent strong brown (7.5YR 5/8) and many medium prominent yellowish brown (10YR 5/6) masses of iron accumulation; extremely acid.

Range in Characteristics

Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

C horizon (upper part):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6
Texture—fine sandy loam, sandy loam, or loam
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, and yellow

C horizon (lower part):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6; or no dominant matrix color and multicolored in shades of brown, yellow, and gray
Texture—fine sandy loam, sandy loam, loam, or sandy clay loam
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, and yellow

Cg horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of gray, brown, and yellow
Texture—fine sandy loam, sandy loam, loam, clay loam, or sandy clay loam
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, and yellow

Kinston Series

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Moderate
Parent material: Stratified loamy and sandy alluvium
Landform: Flood plains
Landform position: Flat and concave slopes on backswamps
Slope: 0 to 1 percent
Taxonomic class: Fine-loamy, siliceous, semiactive, acid, thermic Fluvaquentic Endoaquepts

Commonly Associated Soils

Bibb, Iuka, Mantachie, and Marietta soils and Fluvaquents are commonly associated with the Kinston series.

- The Bibb soils are in positions similar to those of the Kinston soils but are coarse-loamy.
- The moderately well drained Iuka and Marietta soils and the somewhat poorly drained Mantachie soils are on natural levees.
- The very poorly drained Fluvaquents are in sloughs or other depressional positions and are ponded for long or very long periods.

Typical Pedon

Typical pedon of Kinston loam, in an area of Mantachie, Kinston, and Iuka soils, 0 to 1 percent slopes, frequently flooded; about 2 miles southwest of Luverne; 2,300 feet west and 1,400 feet north of the southeast corner of sec. 12, T. 8 N., R. 17 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 41 minutes 0 seconds N. and long. 86 degrees 19 minutes 10 seconds W.

A—0 to 5 inches; dark gray (10YR 4/1) loam; weak fine granular structure; friable; many medium and coarse roots; few medium concretions of iron and manganese oxides; few fine prominent yellowish red (5YR 5/6) masses of iron accumulation lining channels; very strongly acid; abrupt smooth boundary.

Bg1—5 to 18 inches; gray (10YR 6/1) loam; weak coarse subangular blocky structure; friable; many fine and medium roots; few root channels filled with brown (10YR 4/3) loam; many medium distinct yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation throughout; very strongly acid; clear wavy boundary.

Bg2—18 to 30 inches; gray (10YR 6/1) sandy clay loam; weak coarse subangular blocky structure; friable; few fine and medium roots; few fine flakes of mica; few root channels filled with grayish brown (10YR 5/2) loam; many fine and medium prominent yellowish brown (10YR 5/6) and yellowish red (5YR 4/6) irregularly shaped masses of iron accumulation throughout; very strongly acid; clear wavy boundary.

Cg1—30 to 38 inches; grayish brown (10YR 5/2) sandy clay loam; massive; friable; common very fine and fine roots; few fine flakes of mica; common medium prominent strong brown (7.5YR 5/6) and yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation; few fine prominent yellowish red (5YR 4/6) masses of iron accumulation lining pores and root channels; very strongly acid; clear wavy boundary.

Cg2—38 to 50 inches; gray (10YR 5/1) sandy clay loam; massive; firm; few fine flakes of mica; few fine concretions of iron and manganese oxides; common medium prominent yellowish brown (10YR 5/6) and strong brown (7.5YR 4/6) irregularly shaped masses of iron accumulation throughout; very strongly acid; gradual wavy boundary.

Cg3—50 to 62 inches; gray (10YR 5/1) clay loam; massive; firm; few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Cg4—62 to 72 inches; gray (N 5/0) clay loam; massive; firm; few fine flakes of mica; few fine prominent strong brown (7.5YR 5/6) and yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation; very strongly acid; gradual wavy boundary.

Cg5—72 to 80 inches; gray (N 5/0) sandy clay loam; massive; firm; many fine flakes of mica; common thin strata of light brownish gray (10YR 6/1) sandy loam; few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid.

Range in Characteristics

Reaction: Extremely acid to strongly acid throughout the profile

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3

Bg horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2
Texture—fine sandy loam, loam, or sandy clay loam
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, and red

Cg horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2; or neutral in hue and value of 4 to 6
Texture—sandy loam, sandy clay loam, or clay loam; strata of finer or coarser textured material in many pedons
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, and red

Leeper Series

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Slow
Parent material: Clayey alluvium
Landform: Flood plains
Landform position: Backswamps
Slope: 0 to 2 percent
Taxonomic class: Fine, smectitic, nonacid, thermic Vertic Epiaquepts

Commonly Associated Soils

Brantley, Casemore, Hannon, Iuka, Marietta, and Sumter soils are commonly associated with the Leeper series.

- The well drained Brantley and Sumter soils and the moderately well drained Hannon soils are on hillslopes and ridges.
- The Casemore soils are on low stream terraces and are fine-loamy.
- The moderately well drained, loamy Iuka and Marietta soils are on natural levees.

Typical Pedon

Typical pedon of Leeper loam, in an area of Leeper-Marietta complex, 0 to 2 percent slopes, occasionally flooded; about 2 miles north of Highland Home; 2,020 feet south and 2,670 feet west of the northeast corner of sec. 12, T. 12 N., R. 17 E.; USGS Sellers topographic quadrangle; lat. 32 degrees 1 minute 56 seconds N. and long. 86 degrees 18 minutes 35 seconds W.

Ap—0 to 3 inches; very dark grayish brown (10YR 3/2) loam; moderate medium subangular blocky structure; friable; common fine and medium roots; slightly acid; abrupt smooth boundary.

Bw—3 to 12 inches; light olive brown (2.5Y 5/4) clay; weak coarse prismatic structure parting to moderate medium angular blocky; firm; common fine and few medium roots; common medium distinct grayish brown (2.5Y 5/2) iron depletions; slightly alkaline; clear wavy boundary.

Bg—12 to 30 inches; grayish brown (2.5Y 5/2) clay; moderate medium angular blocky structure; firm; few fine roots; many pressure faces; few faint very dark grayish brown (10YR 3/2) organic stains in root channels and on vertical faces of peds; common medium faint gray (2.5Y 5/1) iron depletions on faces of peds; common medium prominent yellowish brown (10YR 5/8) masses of iron accumulation; slightly alkaline; clear wavy boundary.

Bssg1—30 to 50 inches; gray (2.5Y 6/1) clay; moderate medium angular blocky structure; firm; many pressure faces; few large intersecting slickensides that have faintly striated surfaces; common medium distinct very dark brown (10YR 2/2) stains of iron and manganese oxides on faces of peds; common coarse prominent strong brown (7.5YR 4/6) masses of iron accumulation; slightly alkaline; clear wavy boundary.

Bssg2—50 to 62 inches; gray (10YR 5/1) clay; weak coarse angular blocky structure; firm; many pressure faces; few large intersecting slickensides that have faintly striated surfaces; common medium distinct very dark brown (10YR 2/2) stains of iron and manganese oxides on faces of peds; many coarse distinct dark yellowish brown (10YR 4/4) and common coarse prominent strong brown (7.5YR 5/8) masses of iron accumulation; slightly alkaline; gradual wavy boundary.

C—62 to 80 inches; light olive brown (2.5Y 5/3) clay; massive; firm; many pressure faces; common large intersecting slickensides that have distinct polished and grooved surfaces; few fine and medium nodules of calcium carbonate; common medium faint grayish brown (2.5Y 5/2) iron depletions; common medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; slightly alkaline.

Range in Characteristics

Thickness of the solum: 20 to more than 60 inches
Reaction: Slightly acid to moderately alkaline throughout the profile

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3

Bw horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 or 4; or no dominant matrix color and multicolored in shades of brown, olive, and gray
Texture—clay loam, silty clay, or clay
Redoximorphic features—iron depletions in shades of brown and gray and masses of iron accumulation in shades of brown, olive, and gray

Bg and Bssg horizons:
Color—hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2
Texture—silty clay, clay, or silty clay loam
Redoximorphic features—iron depletions in shades of brown and gray and masses of iron accumulation in shades of brown, olive, and gray

C or Cg horizon (where present):
Color—hue of 2.5Y or 5Y, value of 4 to 6, and chroma of 2 to 4
Texture—clay loam, silty clay loam, silty clay, or clay
Redoximorphic features—iron depletions in shades of brown and gray and masses of iron accumulation in shades of brown, olive, and gray

Lucy Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Rapid in the surface and subsurface layer and moderate in the subsoil
Parent material: Sandy and loamy sediments
Landform: Ridges, knolls, and hillslopes
Landform position: Summits, shoulder slopes, and backslopes
Slope: 0 to 35 percent
Taxonomic class: Loamy, kaolinitic, thermic Arenic Kandiudults (fig. 16)

Commonly Associated Soils

Luverne, Nankin, Orangeburg, Springhill, and Troup soils are commonly associated with the Lucy series.

- The Luverne, Nankin, Orangeburg, and Springhill soils are in positions similar to those of the Lucy soils but do not have a thick, sandy epipedon.
- The Troup soils are in positions similar to those of the Lucy soils but have a sandy epipedon that ranges from 40 to 80 inches in thickness.

Typical Pedon

Typical pedon of Lucy loamy sand, 0 to 5 percent slopes; about 1 mile south of Joquin; 500 feet west and 1,400 feet south of the northeast corner of sec. 8, T. 9 N., R. 19 E.; USGS Petrey topographic quadrangle; lat. 31 degrees 46 minutes 10 seconds N. and long. 86 degrees 10 minutes 0 seconds W.

Figure 16.—A profile of a Lucy soil. Lucy soils are well drained and are on summits and side slopes in the uplands. They have a kandic horizon of reddish sandy loam and sandy clay loam underlying an epipedon of loamy sand. The epipedon ranges from 20 to 40 inches in thickness.

Ap—0 to 6 inches; yellowish brown (10YR 5/4) loamy sand; weak medium granular structure; very friable; common fine roots; strongly acid; clear wavy boundary.

E1—6 to 14 inches; light yellowish brown (10YR 6/4) loamy sand; weak coarse subangular blocky structure; very friable; common fine and medium roots; very strongly acid; gradual wavy boundary.

E2—14 to 25 inches; yellowish brown (10YR 5/6) loamy sand; weak coarse subangular blocky structure; very friable; common fine and medium roots; few thin streaks and splotches of uncoated sand; very strongly acid; gradual wavy boundary.

Bt1—25 to 32 inches; yellowish red (5YR 5/6) sandy loam; moderate medium subangular blocky structure; friable; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—32 to 41 inches; yellowish red (5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; friable; common faint clay films on faces of peds; few fine faint yellowish red (5YR 5/6) masses of iron accumulation that are relict redoximorphic features; very strongly acid; gradual wavy boundary.

Bt3—41 to 65 inches; red (2.5YR 4/8) sandy clay loam; moderate medium subangular blocky structure; friable; common faint clay films on faces of peds; few fine distinct yellowish red (5YR 5/6) masses of iron accumulation; few thin streaks of light yellowish brown (10YR 6/4) clay depletions; the clay depletions and masses of iron accumulation are relict redoximorphic features; very strongly acid; gradual wavy boundary.

Bt4—65 to 80 inches; red (2.5YR 5/8) sandy clay loam; weak coarse subangular blocky structure; friable; common faint clay films on faces of peds; few medium faint yellowish red (5YR 5/6) masses of iron accumulation; few thin streaks of light yellowish brown (10YR 6/4) clay depletions; the clay depletions and masses of iron accumulation are relict redoximorphic features; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Thickness of the sandy epipedon: 20 to 40 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface and subsurface layers in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 3 or 4

E horizon:
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 to 6
Texture—loamy sand or loamy fine sand

Bt horizon:
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—sandy loam or sandy clay loam
Redoximorphic features (where present)—iron or clay depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, or red; all of which are relict redoximorphic features

Luverne Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Parent material: Stratified clayey and loamy marine sediments
Landform: Ridges and hillslopes

Landform position: Summits, backslopes, and shoulder slopes
Slope: 2 to 35 percent
Taxonomic class: Fine, mixed, semiactive, thermic Typic Hapludults

Commonly Associated Soils

Arundel, Halso, Lucy, Smithdale, Troup, and Williamsville soils are commonly associated with the Luverne series.

- The moderately deep Arundel and deep Halso soils are in positions similar to those of the Luverne soils but are commonly at lower elevations.
- The Lucy and Troup soils are in positions similar to those of the Luverne soils but have a thick, sandy epipedon overlying a loamy subsoil.
- The Smithdale soils are in positions similar to those of the Luverne soils but are fine-loamy.
- The Williamsville soils are in positions similar to those of the Luverne soils but have fragments of fossil shell and accumulations of glauconitic sand in the solum.

Typical Pedon

Typical pedon of Luverne sandy loam, 8 to 15 percent slopes; about 4.5 miles northwest of Mulberry; 1,200 feet west and 500 feet south of the northeast corner of sec. 6, T. 7 N., R. 16 E.; USGS Leon topographic quadrangle; lat. 31 degrees 37 minutes 28 seconds N. and long. 86 degrees 30 minutes 20 seconds W.

Ap1—0 to 4 inches; dark grayish brown (10YR 4/2) sandy loam; weak fine granular structure; very friable; many fine and medium roots; strongly acid; abrupt smooth boundary.

Ap2—4 to 7 inches; yellowish brown (10YR 5/4) sandy loam; weak fine granular structure; very friable; many fine and medium roots; strongly acid; abrupt smooth boundary.

Bt1—7 to 16 inches; yellowish red (5YR 4/6) sandy clay; strong medium subangular and angular blocky structure; firm; common medium and few fine and coarse roots; few faint clay films on faces of peds; few fine flakes of mica; very strongly acid; gradual wavy boundary.

Bt2—16 to 21 inches; red (2.5YR 4/8) sandy clay; moderate medium subangular blocky structure; firm; common fine and medium roots; common distinct clay films on faces of peds; few fine flakes of mica; few medium distinct brownish yellow (10YR 6/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bt3—21 to 34 inches; yellowish red (5YR 5/8) sandy clay loam; moderate medium subangular blocky structure; firm; few faint clay films on faces of peds; common fine flakes of mica; few medium distinct reddish yellow (7.5YR 6/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

BC—34 to 45 inches; yellowish red (5YR 5/6) sandy loam; weak coarse subangular blocky structure; friable; common fine flakes of mica; common medium distinct red (2.5YR 4/6) masses of iron accumulation; few fine faint light brownish gray (10YR 6/2) iron depletions; very strongly acid; clear wavy boundary.

C1—45 to 60 inches; strong brown (7.5YR 5/6) sandy loam; massive; thinly bedded; friable; few fine roots; many fine flakes of mica; few thin strata of gray (10YR 6/1) sandy loam; common medium distinct yellowish red (5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

C2—60 to 82 inches; stratified strong brown (7.5YR 5/6) sandy loam and gray (10YR 6/1) loamy sand; massive; friable; few fine roots; many fine flakes of mica; common medium distinct yellowish red (5YR 5/6) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 50 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4

E horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 or 4
Texture—fine sandy loam, sandy loam, or loamy sand

Bt horizon (upper part):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 6
Texture—clay loam, clay, or sandy clay

Bt horizon (lower part):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of yellow, red, and brown
Texture—clay loam, sandy clay loam, clay, or sandy clay
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

BC horizon (where present):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of yellow, red, gray, and brown
Texture—sandy loam, sandy clay loam, or clay loam
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

C horizon:
Color—hue of 2.5YR to 10YR, value of 5 to 7, and chroma of 3 to 8; or no dominant matrix color and multicolored in shades of yellow, red, brown, and gray
Texture—loamy sand, sandy loam, fine sandy loam, loam, clay loam, or sandy clay loam or stratified with these textures
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Malbis Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Parent material: Loamy sediments
Landform: Ridges
Landform position: Summits, shoulder slopes, and backslopes
Slope: 1 to 8 percent
Taxonomic class: Fine-loamy, siliceous, subactive, thermic Plinthic Paleudults

Commonly Associated Soils

Luverne, Orangeburg, and Smithdale soils are commonly associated with the Malbis series.

- The Luverne and Smithdale soils are on dissected side slopes. The Luverne soils have a clayey argillic horizon. The Smithdale soils do not have a significant accumulation of plinthite in the subsoil.

- The Orangeburg soils are on summits and side slopes at slightly higher elevations than the Malbis soils and do not have a significant accumulation of plinthite in the subsoil.

Typical Pedon

Typical pedon of Malbis fine sandy loam, 1 to 3 percent slopes; about 5.5 miles southwest of Honoraville; 2,125 feet east and 1,860 feet south of the northwest corner of sec. 10, T. 9 N., R. 16 E.; USGS Honoraville topographic quadrangle; lat. 31 degrees 46 minutes 8 seconds N. and long. 86 degrees 26 minutes 22 seconds W.

Ap—0 to 10 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; very friable; many fine roots; slightly acid; abrupt smooth boundary.

BE—10 to 15 inches; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; friable; many fine roots; strongly acid; clear smooth boundary.

Bt—15 to 28 inches; yellowish brown (10YR 5/8) sandy clay loam; moderate medium subangular blocky structure; friable; common fine roots; few distinct clay films on faces of peds; very strongly acid; clear wavy boundary.

Btv1—28 to 45 inches; yellowish brown (10YR 5/8) sandy clay loam; moderate medium subangular blocky structure; friable; common distinct clay films on faces of peds; about 10 percent fine and medium masses of nodular plinthite; common medium distinct strong brown (7.5YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btv2—45 to 80 inches; yellowish brown (10YR 5/8) sandy clay loam; weak coarse subangular blocky structure; firm; common distinct clay films on faces of peds; about 15 percent fine and medium masses of nodular plinthite; common fine distinct light gray (10YR 7/1) iron depletions; common medium distinct strong brown (7.5YR 5/8) and common fine and medium prominent red (2.5YR 4/8) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches

Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

Other distinctive properties: Depth to a horizon that has 5 percent or more plinthite ranges from 24 to 54 inches

A or Ap horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

BA or BE horizon (where present):

Color—hue of 10YR, value of 5, and chroma of 4 to 6

Texture—fine sandy loam, sandy loam, or loam

Bt horizon:

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 8

Texture—loam, sandy clay loam, or clay loam

Redoximorphic features (where present)—masses of iron accumulation in shades of brown, red, or yellow

Btv horizon:

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 to 8; or no dominant matrix color and multicolored in shades of brown, red, yellow, and gray

Texture—loam, sandy clay loam, or clay loam

Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, red, or yellow

Mantachie Series

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Moderate
Parent material: Loamy alluvium
Landform: Flood plains
Landform position: Flat and slightly convex slopes in backswamps and on the lower parts of natural levees
Slope: 0 to 1 percent
Taxonomic class: Fine-loamy, siliceous, active, acid, thermic Fluventic Endoaquepts

Commonly Associated Soils

Bethera, Bibb, Iuka, Kinston, and Rains soils and Fluvaquents are commonly associated with the Mantachie series.

- The poorly drained Bethera and Rains soils are on terraces at slightly higher elevations than the Mantachie soils.
- The poorly drained Bibb and Kinston soils and the very poorly drained Fluvaquents are in backswamps at slightly lower elevations than the Mantachie soils.
- The moderately well drained Iuka soils are on higher, more convex parts of natural levees than the Mantachie soils.

Typical Pedon

Typical pedon of Mantachie sandy clay loam, in an area of Mantachie, Kinston, and Iuka soils, 0 to 1 percent slopes, frequently flooded; about 2 miles southwest of Luverne; 2,100 feet west and 2,100 feet north of the southeast corner of sec. 12, T. 8 N., R. 17 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 41 minutes 10 seconds N. and long. 86 degrees 19 minutes 20 seconds W.

A1—0 to 2 inches; very dark grayish brown (10YR 3/2) sandy clay loam; weak fine granular structure; very friable; many fine, medium, and coarse roots; very strongly acid; clear wavy boundary.

A2—2 to 6 inches; dark grayish brown (10YR 4/2) sandy clay loam; weak medium subangular blocky structure; friable; common fine, medium, and coarse roots; few medium concretions of iron and manganese oxides; extremely acid; clear wavy boundary.

Bw1—6 to 15 inches; yellowish brown (10YR 5/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; few fine and medium concretions of iron and manganese oxides; few fine distinct light brownish gray (10YR 6/2) iron depletions; few fine faint yellowish brown (10YR 5/8) masses of iron accumulation; extremely acid; gradual wavy boundary.

Bw2—15 to 29 inches; yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable; common fine roots; few fine and medium concretions of iron and manganese oxides; common fine faint light yellowish brown (10YR 6/4) and many medium distinct light brownish gray (10YR 6/2) iron depletions; extremely acid; gradual wavy boundary.

Bg1—29 to 40 inches; light brownish gray (10YR 6/2) sandy clay loam; weak medium subangular blocky structure; friable; few fine roots; few fine concretions of iron and manganese oxides; many medium distinct yellowish brown (10YR 5/6) and strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bg2—40 to 53 inches; gray (10YR 5/1) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; many medium prominent strong brown

(7.5YR 4/6) and yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bg3—53 to 62 inches; gray (10YR 6/1) sandy clay loam; weak coarse subangular blocky structure; friable; few medium distinct light olive brown (2.5Y 5/4) and common medium distinct dark yellowish brown (10YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Cg1—62 to 72 inches; light brownish gray (10YR 6/2) sandy clay loam; massive; friable; many fine and medium distinct yellowish brown (10YR 5/4) and brown (7.5YR 4/4) masses of iron accumulation; strongly acid; gradual wavy boundary.

Cg2—72 to 80 inches; light brownish gray (10YR 6/2) fine sandy loam; massive; very friable; many fine and medium distinct brown (7.5YR 4/4) and dark yellowish brown (10YR 4/4) masses of iron accumulation; strongly acid.

Range in Characteristics

Thickness of the solum: 30 to more than 60 inches
Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Bw horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 to 6; or no dominant matrix color and multicolored in shades of brown, gray, yellow, and red
Texture—fine sandy loam, sandy clay loam, loam, or clay loam
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, red, and yellow

Bg horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of brown, red, yellow, and gray
Texture—sandy clay loam, loam, or clay loam
Redoximorphic features—masses of iron accumulation in shades of brown, red, and yellow

Cg horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of brown, red, yellow, and gray
Texture—fine sandy loam, loam, or sandy clay loam; strata of finer or coarser textured material in most pedons
Redoximorphic features—masses of iron accumulation in shades of brown, red, and yellow

Marietta Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Moderate
Parent material: Loamy alluvium
Landform: Flood plains
Landform position: Convex slopes on high and intermediate parts of natural levees
Slope: 0 to 2 percent
Taxonomic class: Fine-loamy, siliceous, active, thermic Fluvaquentic Eutrudepts

Commonly Associated Soils

Bibb, Casemore, Iuka, and Leeper soils are commonly associated with the Marietta series.

- The poorly drained Bibb soils are in backswamps and are coarse-loamy.
- The somewhat poorly drained Casemore soils are on low stream terraces at slightly higher elevations than the Marietta soils.
- The Iuka soils are on slightly higher positions of natural levees than the Marietta soils and are coarse-loamy.
- The somewhat poorly drained, clayey Leeper soils are in backswamps.

Typical Pedon

Typical pedon of Marietta loam, in an area of Iuka-Marietta complex, 0 to 2 percent slopes, frequently flooded; about 1.5 miles southwest of Sellers; 515 feet east and 155 feet north of the southwest corner of sec. 1, T. 12 N., R. 17 E.; USGS Sellers topographic quadrangle; lat. 32 degrees 2 minutes 18 seconds N. and long. 86 degrees 19 minutes 6 seconds W.

A—0 to 3 inches; brown (10YR 4/3) loam; weak fine granular structure; very friable; many medium and coarse roots; moderately acid; clear wavy boundary.

Bw1—3 to 13 inches; dark yellowish brown (10YR 4/4) clay loam; weak medium subangular blocky structure; friable; common fine and medium roots; few fine and medium concretions of iron and manganese oxides; moderately acid; clear wavy boundary.

Bw2—13 to 21 inches; brown (10YR 4/3) sandy clay loam; weak medium subangular blocky structure; friable; common fine and medium roots; few fine and medium concretions of iron and manganese oxides; common fine distinct yellowish brown (10YR 5/4) masses of iron accumulation; moderately acid; clear wavy boundary.

Bw3—21 to 32 inches; yellowish brown (10YR 5/4) loam; weak medium subangular blocky structure; friable; few fine and medium roots; few fine concretions of iron and manganese oxides; common medium distinct light yellowish brown (10YR 6/4) and light brownish gray (10YR 6/2) iron depletions; moderately acid; clear wavy boundary.

Cg1—32 to 37 inches; gray (10YR 5/1) sandy clay loam; massive; friable; few fine roots; common medium prominent strong brown (7.5YR 4/6) and yellowish brown (10YR 5/6) masses of iron accumulation; moderately acid; gradual wavy boundary.

Cg2—37 to 42 inches; gray (10YR 6/1) sandy clay loam; massive; friable; few medium distinct light olive brown (2.5Y 5/4) and common medium distinct dark yellowish brown (10YR 4/6) masses of iron accumulation; moderately acid; gradual wavy boundary.

Cg3—42 to 50 inches; light brownish gray (10YR 6/2) sandy loam; massive; very friable; common fine and medium distinct yellowish brown (10YR 5/4) and brown (7.5YR 4/4) masses of iron accumulation; slightly acid; gradual wavy boundary.

Cg4—50 to 80 inches; light brownish gray (10YR 6/2) sandy clay loam; massive; friable; common fine and medium distinct brown (7.5YR 4/4) and dark yellowish brown (10YR 4/4) masses of iron accumulation; slightly acid.

Range in Characteristics

Thickness of the solum: 30 to 60 inches

Reaction: Moderately acid to neutral throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 4

Bw horizon (upper part):
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 3 to 6
Texture—loam, clay loam, or sandy clay loam
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, and red

Bw horizon (lower part):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6; or no dominant matrix color and multicolored in shades of yellow, brown, red, and gray
Texture—loam, sandy loam, sandy clay loam, or clay loam
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, and red

Cg horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of brown, yellow, red, and gray
Texture—loam, sandy loam, sandy clay loam, or clay loam or stratified with these textures
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, and red

Nankin Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Parent material: Clayey and loamy marine sediments
Landform: Hillslopes
Landform position: Shoulder slopes, backslopes, and footslopes
Slope: 15 to 35 percent
Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Commonly Associated Soils

Cowarts, Faceville, Lucy, Springhill, and Troup soils are commonly associated with the Nankin series.

- The Cowarts and Springhill soils are in positions similar to those of the Nankin soils but are fine-loamy.
- The Faceville soils are on summits of ridges and have a solum that is more than 60 inches thick.
- The Lucy and Troup soils are in positions similar to those of the Nankin soils but have a thick, sandy epipedon and a loamy subsoil.

Typical Pedon

Typical pedon of Nankin fine sandy loam, in an area of Nankin-Springhill-Lucy complex, 15 to 35 percent slopes; about 2 miles south of Joquin; 500 feet east and 2,200 feet north of the southwest corner of sec. 16, T. 9 N., R. 19 E.; USGS Petrey topographic quadrangle; lat. 31 degrees 45 minutes 10 seconds N. and long. 86 degrees 10 minutes 0 seconds W.

Ap—0 to 3 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine granular structure; very friable; many fine roots; very strongly acid; clear smooth boundary.

Bt1—3 to 15 inches; yellowish red (5YR 4/6) sandy clay; moderate medium subangular blocky structure; firm; common fine and medium roots; few faint clay films on faces of peds; about 5 percent fine ironstone pebbles; very strongly acid; gradual wavy boundary.

Bt2—15 to 28 inches; yellowish red (5YR 4/6) sandy clay; moderate medium subangular blocky structure parting to fine angular blocky; firm; common fine and medium roots; many distinct clay films on faces of peds; about 5 percent fine and medium ironstone pebbles; few medium faint red (2.5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bt3—28 to 42 inches; red (2.5YR 5/6) sandy clay loam; moderate medium subangular blocky structure; firm; many distinct clay films of faces of peds; about 5 percent fine and medium ironstone pebbles; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

BC—42 to 60 inches; red (2.5YR 4/6) sandy clay loam; weak coarse subangular blocky structure; firm; few faint clay films on faces of peds; few thin strata of white (10YR 8/1) clay; about 5 percent fine and medium ironstone pebbles; very strongly acid; gradual wavy boundary.

C—60 to 80 inches; red (2.5YR 4/6) sandy loam; massive; firm; few thin strata of yellowish brown (10YR 5/6) sandy loam and loamy sand and white (10YR 8/1) clay; about 5 percent fine and medium ironstone pebbles; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 40 inches

Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4

Bt horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—clay, sandy clay, or sandy clay loam

BC horizon (where present):

Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8

Texture—sandy loam or sandy clay loam

Redoximorphic features (where present)—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

C horizon:

Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of red, yellow, brown, and gray

Texture—sandy loam or sandy clay loam; strata of finer or coarser textured material in most pedons

Redoximorphic features (where present)—iron depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Ocilla Series

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil

Parent material: Sandy and loamy sediments

Landform: Toeslopes and stream terraces

Landform position: Slightly convex slopes

Slope: 0 to 2 percent
Taxonomic class: Loamy, siliceous, semiactive, thermic Aquic Arenic Paleudults

Commonly Associated Soils

Bethera, Bonneau, Eunola, Pelham, and Rains soils are commonly associated with the Ocilla series.

- The poorly drained Bethera and Rains soils are on terraces at slightly lower elevations than the Ocilla soils and do not have a thick, sandy epipedon.
- The well drained Bonneau soils are on terraces at slightly higher elevations than the Ocilla soils.
- The moderately well drained Eunola soils are on terraces at slightly lower elevations than the Ocilla soils and do not have a thick, sandy epipedon.
- The poorly drained Pelham soils are in slightly lower, less convex positions than those of the Ocilla soils.

Typical Pedon

Typical pedon of Ocilla loamy fine sand, in an area of Pelham-Ocilla complex, 0 to 2 percent slopes, rarely flooded; about 1.5 miles northwest of Mulberry; 470 feet west and 130 feet north of the southeast corner of sec. 32, T. 8 N., R. 16 E.; USGS Leon topographic quadrangle; lat. 31 degrees 36 minutes 43 seconds N. and long. 86 degrees 28 minutes 1 second W.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) loamy fine sand; weak fine granular structure; very friable; few fine and medium roots; strongly acid; clear smooth boundary.

E1—6 to 12 inches; brown (10YR 5/3) loamy fine sand; weak coarse subangular blocky structure; very friable; few fine roots; common thin streaks of light yellowish brown (10YR 6/4) loamy fine sand; very strongly acid; clear wavy boundary.

E2—12 to 24 inches; light yellowish brown (10YR 6/4) loamy fine sand; weak coarse subangular blocky structure; very friable; few fine and medium roots; common medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; common fine faint gray (10YR 6/1) clay depletions; very strongly acid; clear wavy boundary.

Bt1—24 to 30 inches; yellowish brown (10YR 5/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common faint clay films on faces of peds; common medium prominent yellowish red (5YR 5/8) masses of iron accumulation; many medium distinct light brownish gray (10YR 6/2) iron depletions; very strongly acid; clear wavy boundary.

Bt2—30 to 45 inches; yellowish brown (10YR 5/8) sandy clay loam; moderate medium subangular blocky structure; firm; common distinct clay films on faces of peds; few medium distinct yellowish red (5YR 5/6) masses of iron accumulation; many medium distinct light brownish gray (10YR 6/2) and light yellowish brown (10YR 6/4) iron depletions; very strongly acid; gradual wavy boundary.

Bt3—45 to 60 inches; brownish yellow (10YR 6/6) sandy clay loam; moderate medium subangular blocky structure; firm; common distinct clay films on faces of peds; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; many medium distinct gray (10YR 6/1) and light olive brown (2.5Y 5/4) iron depletions; very strongly acid; clear wavy boundary.

Btg—60 to 80 inches; gray (10YR 6/1) sandy clay loam; weak coarse subangular blocky structure; friable; common distinct clay films on faces of peds; few medium distinct yellowish brown (10YR 5/6) and light olive brown (2.5Y 5/4) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Thickness of the sandy epipedon: 20 to 40 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface and subsurface layers in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

E horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 4
Texture—loamy sand or loamy fine sand
Redoximorphic features—iron or clay depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, or red

Bt horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8
Texture—sandy loam or sandy clay loam
Redoximorphic features—iron or clay depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, or red

Btg horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of brown, red, gray, and yellow
Texture—sandy loam, sandy clay loam, or sandy clay
Redoximorphic features—iron or clay depletions in shades of brown or gray and masses of iron accumulation in shades of brown, yellow, and red

Orangeburg Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy marine sediments
Landform: Ridges
Landform position: Summits, shoulder slopes, and backslopes
Slope: 0 to 8 percent
Taxonomic class: Fine-loamy, kaolinitic, thermic Typic Kandiudults

Commonly Associated Soils

Dothan, Greenville, Lucy, Springhill, and Troup soils are commonly associated with the Orangeburg series.

- The Dothan soils are in positions similar to those of the Orangeburg soils but have a significant accumulation of plinthite in the subsoil.
- The Greenville soils are in positions similar to those of the Orangeburg soils but have a dark red, fine-textured kandic horizon.
- The Lucy and Troup soils are on summits and dissected side slopes and have a thick, sandy epipedon.
- The Springhill soils are on dissected side slopes and have a kandic horizon that decreases significantly in content of clay within a depth of 60 inches.

Typical Pedon

Typical pedon of Orangeburg sandy loam, 0 to 2 percent slopes; about 2 miles west of Rutledge; 600 feet south and 2,600 feet east of the northwest corner of sec. 21, T. 9 N., R. 17 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 45 minutes 0 seconds N. and long. 86 degrees 22 minutes 20 seconds W.

Ap1—0 to 3 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable; many fine roots; strongly acid; clear smooth boundary.
Ap2—3 to 8 inches; dark yellowish brown (10YR 4/4) sandy loam; weak fine subangular blocky structure; very friable; common fine roots; very strongly acid; clear smooth boundary.
Bt1—8 to 24 inches; yellowish red (5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; friable; common fine roots; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
Bt2—24 to 45 inches; red (2.5YR 4/8) sandy clay loam; moderate medium subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; about 2 percent fine ironstone pebbles; few medium distinct strong brown (7.5YR 5/6) masses of iron accumulation that are relict redoximorphic features; very strongly acid; gradual wavy boundary.
Bt3—45 to 60 inches; red (2.5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; firm; few fine roots; common faint clay films on faces of peds; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation that are relict redoximorphic features; very strongly acid; gradual wavy boundary.
Bt4—60 to 80 inches; red (2.5YR 5/8) sandy clay loam; weak coarse subangular blocky structure; friable; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation that are relict redoximorphic features; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4

E horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 or 4
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

Bt horizon:
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8
Texture—sandy clay loam or clay loam
Redoximorphic features (where present)—iron or clay depletions in shades of brown and masses of iron accumulation in shades of red, brown, or yellow; all of which are relict redoximorphic features

Pelham Series

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Parent material: Sandy and loamy sediments
Landform: Toeslopes and low stream terraces
Landform position: Flat and concave slopes
Slope: 0 to 1 percent
Taxonomic class: Loamy, siliceous, subactive, thermic Arenic Paleaquults

Commonly Associated Soils

Bethera, Bonneau, Eunola, Ocilla, and Rains soils are commonly associated with the Pelham series.

- The poorly drained Bethera and Rains soils are on terraces at slightly lower elevations than the Pelham soils and do not have a thick, sandy epipedon.
- The well drained Bonneau soils are on terraces at slightly higher elevations than the Pelham soils.
- The moderately well drained Eunola soils are on terraces at slightly lower elevations than the Pelham soils and do not have a thick, sandy epipedon.
- The somewhat poorly drained Ocilla soils are in slightly higher, more convex positions than those of the Pelham soils.

Typical Pedon

Typical pedon of Pelham loamy fine sand, in an area of Pelham-Ocilla complex, 0 to 2 percent slopes, rarely flooded; about 1.5 miles northwest of Mulberry; 525 feet west and 200 feet north of the southeast corner of sec. 32, T. 7 N., R. 16 E.; USGS Leon topographic quadrangle; lat. 31 degrees 36 minutes 44 seconds N. and long. 86 degrees 28 minutes 2 seconds W.

Ap—0 to 8 inches; very dark gray (10YR 3/1) loamy fine sand; weak fine granular structure; very friable; many fine, medium, and coarse roots; few medium concretions of iron and manganese oxides; very strongly acid; clear wavy boundary.

Eg1—8 to 15 inches; gray (10YR 5/1) loamy fine sand; weak coarse subangular blocky structure; very friable; common fine, medium, and coarse roots; few medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Eg2—15 to 24 inches; light gray (10YR 7/1) loamy fine sand; weak coarse subangular blocky structure; very friable; common fine, medium, and coarse roots; few medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btg1—24 to 36 inches; gray (10YR 6/1) sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; common faint clay films on faces of peds; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg2—36 to 52 inches; gray (10YR 5/1) sandy clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common faint clay films on faces of peds; many fine and medium prominent reddish yellow (7.5YR 6/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg3—52 to 65 inches; grayish brown (10YR 5/2) sandy clay loam; moderate medium subangular blocky structure; friable; few fine roots; common faint clay films on faces of peds; common medium distinct reddish yellow (7.5YR 6/6) and yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg4—65 to 80 inches; light brownish gray (10YR 6/2) sandy clay loam; weak coarse subangular blocky structure; firm; common faint clay films on faces of peds; few fine concretions of iron and manganese oxides; common medium prominent strong brown (7.5YR 4/6) and yellowish red (5YR 5/6) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Thickness of the sandy epipedon: 20 to 40 inches

Reaction: Extremely acid to strongly acid throughout the profile, except for the surface and subsurface layers in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 to 3

Eg horizon:
Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 or 2
Texture—loamy sand or loamy fine sand
Redoximorphic features—masses of iron accumulation in shades of red, yellow, or brown

Btg horizon:
Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 or 2
Texture—sandy loam, fine sandy loam, loam, or sandy clay loam
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, and red

Rains Series

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Moderate
Parent material: Loamy sediments
Landform: Low stream terraces
Landform position: Flat and slightly concave slopes
Slope: 0 to 1 percent
Taxonomic class: Fine-loamy, siliceous, semiactive, thermic Typic Paleaquults

Commonly Associated Soils

Bethera, Eunola, Ocilla, and Pelham soils are commonly associated with the Rains series.

- The clayey Bethera soils are in positions similar to those of the Rains soils.
- The moderately well drained, loamy Eunola soils are on terraces at slightly higher elevations than the Rains soils.
- The sandy Ocilla and Pelham soils are on terraces at slightly higher elevations than the Rains soils.

Typical Pedon

Typical pedon of Rains fine sandy loam, in an area of Rains-Bethera complex, 0 to 1 percent slopes, occasionally flooded; about 1 mile northwest of Mulberry; 400 feet west and 400 feet north of the southeast corner of sec. 5, T. 7 N., R. 16 E.; USGS Leon topographic quadrangle; lat. 31 degrees 35 minutes 58 seconds N. and long. 86 degrees 27 minutes 58 seconds W.

A—0 to 4 inches; dark gray (10YR 4/1) fine sandy loam; weak fine granular structure; friable; many fine, medium, and coarse roots; few medium concretions of iron and manganese oxides; few fine prominent yellowish red (5YR 5/6) masses of iron accumulation in root channels; very strongly acid; abrupt smooth boundary.

Eg—4 to 8 inches; gray (10YR 6/1) fine sandy loam; weak coarse subangular blocky structure; very friable; many fine and medium roots; few medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; extremely acid; clear smooth boundary.

Btg1—8 to 20 inches; gray (10YR 6/1) sandy clay loam; moderate medium subangular blocky structure; friable; common fine and medium roots; few faint clay films on faces of peds; many medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg2—20 to 35 inches; gray (10YR 5/1) sandy clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common faint clay films on faces of peds; many fine and medium prominent yellowish brown (10YR 5/6) and yellowish red (5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg3—35 to 50 inches; gray (2.5Y 5/1) sandy clay; moderate medium subangular blocky structure; firm; common faint clay films on faces of peds; common fine and medium prominent strong brown (7.5YR 5/6), yellowish brown (10YR 5/6), and yellowish red (5YR 4/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg4—50 to 62 inches; gray (2.5Y 6/1) sandy clay; moderate medium subangular blocky structure; firm; common faint clay films on faces of peds; few fine concretions of iron and manganese oxides; common medium distinct light olive brown (2.5Y 5/6) and few medium prominent yellowish red (5YR 4/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg5—62 to 80 inches; gray (10YR 6/1) sandy clay; weak coarse subangular blocky structure; firm; common faint clay films on faces of peds; common fine distinct light olive brown (2.5Y 5/4) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches

Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:

Color—hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 to 3

Eg horizon:

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 or 2

Texture—fine sandy loam or loamy fine sand

Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red

Btg horizon (upper part):

Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 1 or 2

Texture—sandy clay loam or clay loam

Redoximorphic features—masses of iron accumulation in shades of brown, yellow, and red

Btg horizon (lower part):

Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 1 or 2

Texture—sandy clay loam, clay loam, or sandy clay

Redoximorphic features—masses of iron accumulation in shades of brown, yellow, and red

Red Bay Series

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Parent material: Loamy sediments

Landform: Ridges

Landform position: Summits, shoulder slopes, and backslopes

Slope: 2 to 5 percent
Taxonomic class: Fine-loamy, kaolinitic, thermic Rhodic Kandiudults

Commonly Associated Soils

Dothan, Faceville, Greenville, Orangeburg, and Springhill soils are commonly associated with the Red Bay series.

- The Dothan, Faceville, Greenville, and Orangeburg soils are in positions similar to those of the Red Bay soils. The Dothan soils have a brownish kandic horizon that has a significant accumulation of plinthite in the lower part. The Faceville and Greenville soils have a clayey kandic horizon. The Orangeburg soils do not have a dark red kandic horizon.
- The Springhill soils are on dissected side slopes and do not have a dark red kandic horizon.

Typical Pedon

Typical pedon of Red Bay fine sandy loam, 0 to 2 percent slopes; about 2 miles north of Fullers Crossroads; 1,500 feet north and 1,900 feet east of the southwest corner of sec. 31, T. 11 N., R. 18 E.; USGS Lapine topographic quadrangle; lat. 31 degrees 32 minutes 58 seconds N. and long. 86 degrees 17 minutes 45 seconds W.

Ap—0 to 8 inches; reddish brown (5YR 4/4) fine sandy loam; weak medium granular structure; very friable; common fine and medium roots; moderately acid; abrupt smooth boundary.

Bt1—8 to 18 inches; dark red (2.5YR 3/6) sandy clay loam; weak coarse subangular blocky structure parting to moderate medium subangular blocky; friable; few faint clay films on faces of peds; common fine and medium roots; strongly acid; gradual wavy boundary.

Bt2—18 to 30 inches; dark red (10R 3/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common faint clay films on faces of peds; about 5 percent fine ironstone pebbles; strongly acid; gradual wavy boundary.

Bt3—30 to 40 inches; dark red (2.5YR 3/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine roots; common faint clay films on faces of peds; about 2 percent fine ironstone pebbles; strongly acid; gradual wavy boundary.

Bt4—40 to 61 inches; dark red (2.5YR 3/6) sandy clay loam; weak coarse subangular blocky structure parting to moderate medium subangular blocky; friable; few fine roots; common faint clay films on faces of peds; about 10 percent fine ironstone pebbles; strongly acid; gradual wavy boundary.

Bt5—61 to 83 inches; dark red (2.5YR 3/6) sandy loam; weak coarse subangular blocky structure; friable; few fine roots; common faint clay films on faces of peds; about 2 percent fine ironstone pebbles; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Reaction: Very strongly acid to moderately acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:
Color—hue of 5YR or 7.5YR, value of 3 or 4, and chroma of 2 to 4

Bt horizon:
Color—hue of 10R or 2.5YR, value of 3, and chroma of 4 to 6
Texture—commonly sandy clay loam; sandy clay and sandy loam in thin subhorizons in some pedons

Smithdale Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy sediments
Landform: Hillslopes
Landform position: Shoulder slopes and backslopes
Slope: 8 to 35 percent
Taxonomic class: Fine-loamy, siliceous, subactive, thermic Typic Hapludults (fig. 17)

Commonly Associated Soils

Lucy, Luverne, Malbis, Orangeburg, and Troup soils are commonly associated with the Smithdale series.

- The Lucy and Troup soils are on summits and side slopes and have a thick, sandy epipedon.
- The Luverne soils are in positions similar to those of the Smithdale soils but have a clayey argillic horizon.
- The Malbis and Orangeburg soils are on summits and smooth side slopes. The Malbis soils have a brownish subsoil and have a significant accumulation of plinthite in the lower part of the subsoil. The Orangeburg soils have a kandic horizon that does not have a significant decrease in content of clay within a depth of 60 inches.

Typical Pedon

Typical pedon of Smithdale sandy loam, 8 to 15 percent slopes; about 5.5 miles northeast of Greenville; in Butler County, Alabama; 600 feet south and 1,320 feet west of the northeast corner of sec. 10, T. 10 N., R. 15 E.; USGS Greenville East topographic quadrangle; lat. 31 degrees 51 minutes 35 seconds N. and long. 86 degrees 32 minutes 16 seconds W.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) sandy loam; weak fine granular structure; very friable; many fine and medium roots; very strongly acid; abrupt smooth boundary.

BE—6 to 11 inches; yellowish red (5YR 4/6) sandy loam; weak fine granular structure; very friable; common fine roots; very strongly acid; clear wavy boundary.

Bt1—11 to 23 inches; red (2.5YR 4/6) sandy clay loam; weak medium subangular blocky structure; friable; few fine and medium roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—23 to 41 inches; red (2.5YR 4/8) sandy clay loam; weak medium subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; few fine ironstone pebbles; very strongly acid; clear wavy boundary.

Bt3—41 to 52 inches; red (2.5YR 4/6) sandy loam; weak medium subangular blocky structure; very friable; few faint clay films on faces of peds; few thin streaks of pale brown (10YR 6/3) sand; few fine ironstone pebbles; very strongly acid; gradual wavy boundary.

Bt4—52 to 72 inches; red (2.5YR 4/6) sandy loam; weak coarse subangular blocky structure; very friable; few faint clay films on faces of peds; few thin streaks of pale brown (10YR 6/3) sand; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

Figure 17.—A profile of a Smithdale soil. Smithdale soils are well drained, loamy soils. They are on hillslopes in the western part of the county. They have an argillic horizon of reddish sandy clay loam and sandy loam.

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 1 to 3

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 or sandy loam

Bt horizon (upper part):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8
Texture—loam, sandy clay loam, or clay loam

Bt horizon (lower part):
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 6 to 8
Texture—loam, sandy loam, or sandy clay loam
Redoximorphic features (where present)—iron or clay depletions in shades of brown and masses of iron accumulation in shades of brown, red, or yellow; all of which are assumed to be relic redoximorphic features

Springhill Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy sediments
Landform: Hillslopes
Landform position: Shoulder slopes, backslopes, and footslopes
Slope: 5 to 35 percent
Taxonomic class: Fine-loamy, kaolinitic, thermic Typic Kanhapludults

Commonly Associated Soils

Dothan, Greenville, Lucy, Nankin, Orangeburg, and Troup soils are commonly associated with the Springhill series.

- The Dothan, Greenville, and Orangeburg soils are on summits and shoulders of ridges. The Dothan soils are brownish and have a significant accumulation of plinthite in the lower part of the subsoil. The Greenville soils are dark red or dark reddish brown throughout and have a clayey kandic horizon. The Orangeburg soils have a kandic horizon that does not have a significant decrease in content of clay within a depth of 60 inches.
- The Lucy, Nankin, and Troup soils are in positions similar to those of the Springhill soils. The Lucy and Troup soils have a thick, sandy epipedon. The Nankin soils have a clayey kandic horizon.

Typical Pedon

Typical pedon of Springhill sandy loam, in an area of Nankin-Springhill-Lucy complex, 15 to 35 percent slopes; about 1 mile east of Fullers Crossroads; 2,530 feet east and 390 feet north of the southwest corner of sec. 19, T. 10 N., R. 18 E.; USGS Fullers Crossroads topographic quadrangle; lat. 31 degrees 48 minutes 10 seconds N. and long. 86 degrees 16 minutes 45 seconds W.

Ap—0 to 6 inches; yellowish brown (10YR 5/4) sandy loam; weak medium subangular blocky structure; very friable; many fine, medium, and coarse roots; very strongly acid; clear smooth boundary.
Bt1—6 to 20 inches; red (2.5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; friable; many fine, medium, and coarse roots; common faint clay films on faces of peds; very strongly acid; clear wavy boundary.

Bt2—20 to 38 inches; red (2.5YR 4/8) sandy clay loam; moderate medium subangular blocky structure; friable; common fine and medium roots; common distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt3—38 to 50 inches; red (2.5YR 4/8) sandy clay loam; weak medium subangular blocky structure; friable; common fine and few medium roots; common faint clay films on faces of peds; few medium distinct brownish yellow (10YR 6/6) masses of iron accumulation that are relict redoximorphic features; very strongly acid; gradual wavy boundary.

Bt4—50 to 60 inches; red (2.5YR 4/8) sandy loam; weak coarse subangular blocky structure; very friable; common fine roots; few faint clay films on faces of peds; few medium distinct brownish yellow (10YR 6/8) masses of iron accumulation that are relict redoximorphic features; very strongly acid; gradual wavy boundary.

BC—60 to 80 inches; red (2.5YR 4/6) sandy loam; weak very coarse subangular blocky structure; very friable; few fine roots; few medium distinct brownish yellow (10YR 6/8) masses of iron accumulation that are relict redoximorphic features; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches

Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4

Bt horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—commonly sandy clay loam; sandy loam in thin subhorizons in some pedons

Redoximorphic features (where present)—iron or clay depletions in shades of brown and masses of iron accumulation in shades or red, brown or yellow; all of which are assumed to be relict redoximorphic features

BC horizon (where present):

Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8

Texture—sandy loam or fine sandy loam

Redoximorphic features (where present)—iron or clay depletions in shades of brown and masses of iron accumulation in shades or red, brown or yellow; all of which are assumed to be relict redoximorphic features

Sumter Series

Depth class: Moderately deep

Drainage class: Well drained

Permeability: Slow

Parent material: Loamy residuum weathered from interbedded chalk, marl, and indurated limestone

Landform: Ridges, knolls, and hillslopes

Landform position: Summits, shoulder slopes, benches, and backslopes

Slope: 2 to 35 percent

Taxonomic class: Fine-loamy, carbonatic, thermic Rendollic Eutrudepts

Commonly Associated Soils

Brantley, Hannon, Leeper, and Marietta soils are commonly associated with the Sumter series.

- The clayey Brantley soils are in positions similar to those of the Sumter soils but are at higher elevations.
- The clayey Hannon soils are in positions similar to those of the Sumter soils but are reddish and acid in the upper part of the subsoil.
- The somewhat poorly drained Leeper and moderately well drained Marietta soils are on flood plains.

Typical Pedon

Typical pedon of Sumter clay loam, in an area of Sumter-Hannon complex, 12 to 35 percent slopes, eroded; about 3 miles west of Highland Home; 2,300 feet west and 500 feet north of the southeast corner of sec. 16, T. 12 N., R. 17 E.; USGS Sellers topographic quadrangle; lat. 32 degrees 20 minutes 10 seconds N. and long. 86 degrees 22 minutes 45 seconds W.

Ap1—0 to 2 inches; very dark grayish brown (2.5Y 3/2) clay loam; moderate fine granular structure; friable; common fine and medium roots; about 10 percent limestone pebbles; slightly effervescent; neutral; clear wavy boundary.

Ap2—2 to 5 inches; olive brown (2.5Y 4/3) clay loam; moderate coarse granular structure; firm; common fine and medium roots; about 10 percent limestone pebbles; few fine nodules and common fine and medium soft white masses of calcium carbonate; strongly effervescent; neutral; clear wavy boundary.

Bk1—5 to 10 inches; light olive brown (2.5Y 5/4) clay loam; weak medium subangular blocky structure; firm; common fine and medium roots; common medium nodules and many fine soft white masses of calcium carbonate; violently effervescent; slightly alkaline; clear wavy boundary.

Bk2—10 to 17 inches; light olive brown (2.5Y 5/6) clay loam; weak medium subangular blocky structure; firm; common fine and medium roots; many wormcasts; common medium nodules and many fine soft white masses of calcium carbonate; violently effervescent; slightly alkaline; clear wavy boundary.

Bk3—17 to 23 inches; light olive brown (2.5Y 5/4) loam; moderate medium subangular blocky structure; firm; common fine and medium roots; common medium nodules and many fine soft white masses of calcium carbonate; violently effervescent; slightly alkaline; clear wavy boundary.

C—23 to 29 inches; light yellowish brown (2.5Y 6/4) sandy clay loam; weak medium platy rock structure; firm; few fine roots; many fine, medium, and coarse nodules and soft white masses of calcium carbonate; violently effervescent; slightly alkaline; abrupt wavy boundary.

Cr—29 to 80 inches; light brownish gray (2.5Y 6/2) chalk; strong medium platy rock structure; very firm; few thin strata of marl and indurated limestone; violently effervescent; moderately alkaline.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to bedrock: 20 to 40 inches
Reaction: Neutral to moderately alkaline in the A or Ap horizon and slightly alkaline or moderately alkaline in the Bk and C horizons

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 to 4

Bk horizon:
Color—hue of 10YR to 5Y, value of 4 to 6, and chroma of 3 to 6
Texture—clay loam, silty clay loam, or loam

C horizon (where present):

Color—hue of 10YR to 5Y, value of 4 to 7, and chroma of 2 to 6

Texture—clay loam, sandy clay loam, silty clay loam, or loam

Cr horizon:

Type of bedrock—interbedded chalk, marl, and indurated limestone; massive or platy rock structure

Other distinctive features—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

The Sumter series is classified as fine-silty, carbonatic, thermic Rendollic Eutrudepts. The Sumter soils in Crenshaw County, however, are taxadjuncts to the Sumter series because the content of sand coarser than very fine sand in the particle-size control section is higher than is defined as the range of the official series. This difference, however, does not significantly affect the use, management, or interpretations of the soils. In this survey area, the Sumter soils are fine-loamy, carbonatic, thermic Rendollic Eutrudepts.

Troup Series

Depth class: Very deep
Drainage class: Somewhat excessively drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Parent material: Sandy and loamy sediments
Landform: Ridges and hillslopes
Landform position: Summits, shoulder slopes, backslopes, and footslopes
Slope: 0 to 35 percent
Taxonomic class: Loamy, kaolinitic, thermic Grossarenic Kandiudults (fig. 18)

Commonly Associated Soils

Alaga, Lucy, Luverne, Orangeburg, Smithdale, and Springhill soils are commonly associated with the Troup series.

- The Alaga and Lucy soils are in positions similar to those of the Troup soils. The Alaga soils do not have a loamy kandic horizon within a depth of 80 inches. The Lucy soils have a sandy epipedon that ranges from 20 to 40 inches in thickness.
- The Luverne, Smithdale, and Springhill soils are on dissected side slopes and do not have a thick, sandy epipedon.
- The Orangeburg soils are commonly on summits and side slopes at slightly higher elevations than the Troup soils and do not have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Troup loamy sand, 0 to 5 percent slopes; about 4.5 miles southeast of Brantley; 490 feet east and 2,560 feet north of the southwest corner of sec. 13, T. 6 N., R. 18 E.; USGS Danleys Crossroads topographic quadrangle; lat. 31 degrees 30 minutes 0 seconds N. and long. 86 degrees 12 minutes 30 seconds W.

Ap—0 to 3 inches; brown (10YR 4/3) loamy sand; weak fine granular structure; very friable; many fine and very fine roots; very strongly acid; clear smooth boundary.

E1—3 to 12 inches; yellowish brown (10YR 5/4) loamy sand; weak fine granular structure; very friable; many fine and very fine roots; very strongly acid; clear wavy boundary.

E2—12 to 50 inches; strong brown (7.5YR 5/6) loamy sand; weak coarse subangular blocky structure; very friable; common fine and very fine roots; very strongly acid; abrupt wavy boundary.

Figure 18.—A profile of a Troup soil. Troup soils are somewhat excessively drained and are on summits and side slopes in the uplands. They have a kandic horizon of reddish sandy clay loam underlying an epipedon of loamy sand. The epipedon ranges from 40 to 80 inches in thickness.

Bt1—50 to 60 inches; yellowish red (5YR 5/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine roots; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—60 to 80 inches; red (2.5YR 5/6) sandy clay loam; moderate medium subangular blocky structure; friable; common faint clay films on faces of peds; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Thickness of the sandy epipedon: 40 to 80 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface and subsurface layers in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

E horizon:
Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 3 to 6
Texture—loamy sand or loamy fine sand

Bt horizon:
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8
Texture—sandy loam or sandy clay loam

Williamsville Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Parent material: Stratified clayey and loamy sediments
Landform: Ridges and hillslopes
Landform position: Summits, backslopes, footslopes, and shoulder slopes
Slope: 2 to 8 percent
Taxonomic class: Fine, mixed, active, thermic Typic Hapludults

Commonly Associated Soils

Arundel, Lucy, Smithdale, and Troup soils are commonly associated with the Williamsville series.

- The moderately deep Arundel soils are on side slopes at lower elevations than the Williamsville soils.
- The Lucy and Troup soils are in positions similar to those of the Williamsville soils but have a thick, sandy epipedon.
- The Smithdale soils are on dissected side slopes and are fine-loamy.

Typical Pedon

Typical pedon of Williamsville fine sand, 2 to 5 percent slopes; about 2.5 miles southwest of Luverne; 2,000 feet west and 500 feet north of the southeast corner of sec. 7, T. 8 N., R. 18 E.; USGS Luverne topographic quadrangle; lat. 31 degrees 40 minutes 5 seconds N. and long. 86 degrees 17 minutes 30 seconds W.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) fine sand; weak fine granular structure; very friable; many fine and medium roots; few fragments of silicified, fossil oyster shell; strongly acid; abrupt smooth boundary.

E—6 to 11 inches; light yellowish brown (10YR 6/4) fine sand; single grained; loose; many fine and medium roots; few fine fragments of silicified, fossil oyster shell; strongly acid; abrupt smooth boundary.

BE—11 to 15 inches; strong brown (7.5YR 4/6) sandy clay loam; strong medium subangular blocky structure; firm; common medium and few fine and coarse roots; few fine fragments of silicified, fossil oyster shell; few fine flakes of mica; very strongly acid; gradual wavy boundary.

Bt1—15 to 28 inches; red (2.5YR 4/8) sandy clay; moderate medium prismatic structure parting to strong fine and medium angular blocky; firm; few fine and medium roots; continuous distinct clay films on faces of peds; few fine fragments of silicified, fossil oyster shell; common fine flakes of mica; few medium distinct strong brown (7.5YR 4/6) masses of iron accumulation that are relict redoximorphic features; very strongly acid; gradual wavy boundary.

Bt2—28 to 42 inches; red (2.5YR 4/8) sandy clay; moderate coarse prismatic structure parting to moderate medium angular and subangular blocky; firm; few fine roots; continuous distinct clay films on faces of peds; few fine fragments of silicified, fossil oyster shell; common fine flakes of mica; few medium distinct reddish yellow (7.5YR 6/8) masses of iron accumulation that are relict redoximorphic features; very strongly acid; gradual wavy boundary.

Bt3—42 to 48 inches; red (2.5YR 4/6) sandy clay loam; weak coarse subangular blocky structure; firm; common distinct clay films on faces of peds; few fine fragments of silicified, fossil oyster shell; common fine flakes of mica; very strongly acid; gradual wavy boundary.

Bt4—48 to 60 inches; red (2.5YR 4/6) sandy clay loam; weak coarse subangular blocky structure; firm; common distinct clay films on faces of peds; few fine fragments of silicified, fossil oyster shell; common fine flakes of mica; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation that are relict redoximorphic features; very strongly acid; gradual wavy boundary.

BC1—60 to 70 inches; red (2.5YR 4/6) sandy clay loam; weak coarse subangular blocky structure; firm; few faint clay films on faces of peds; common fine flakes of mica; common medium distinct light olive brown (2.5Y 5/3) iron depletions; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; the iron depletions and masses of iron accumulation are relict redoximorphic features; very strongly acid; gradual wavy boundary.

BC2—70 to 80 inches; yellowish red (5YR 4/6) sandy clay loam; weak coarse subangular blocky structure; firm; common fine flakes of mica; common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation that are relict redoximorphic features; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches

Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas where lime has been applied

A or Ap horizon:

Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4

E horizon (where present):

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—fine sand or loamy fine sand

BE horizon (where present):

Color—hue of 5YR or 7.5YR, value of 4 to 6, and chroma of 4 to 6

Texture—sandy loam or sandy clay loam

Bt horizon:
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—clay, sandy clay, or sandy clay loam
Redoximorphic features (where present)—iron depletions in shades of brown and masses of iron accumulation in shades of brown, yellow, olive, or red; all of which are relict redoximorphic features

BC horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8
Texture—sandy loam or sandy clay loam
Redoximorphic features (where present)—iron depletions in shades of brown and masses of iron accumulation in shades of brown, yellow, olive, or red; all of which are relict redoximorphic features

Formation of the Soils

In this section, the factors of soil formation are related to the soils in Crenshaw County and the processes of horizon differentiation are explained.

Factors of Soil Formation

Soil is a natural, three-dimensional body on the earth's surface that supports plants. Soil forms through weathering and other processes that act on deposited or accumulated geologic material. The kind of soil that forms depends on the type of parent material; the climate under which soil material has existed since accumulation; the relief, or lay of the land; the plant and animal life in and on the soil; and the length of time that the forces of soil formation have acted on the soil material. The relative importance of each of these factors differs from place to place; in some areas, one factor is more important, and in other areas another may dominate. A modification or variation in any of the factors results in a different kind of soil.

Climate and living organisms are the active factors of soil formation. They act on parent material and change it to a natural body with definite characteristics. The effects of climate and living organisms are conditioned by relief, which influences surface drainage, the amount of water that percolates through the soil, the rate of erosion, and the kind of vegetation that grows on the soil. The nature of the parent material also affects the kind of soil profile that is formed. Time is needed for the parent material to change into a soil. The development of a distinct soil horizon normally requires a long period of time.

Parent Material

Parent material is the initial physical body that is changed by other soil-forming factors over time. Generally, the younger the soil, the greater the influence of the parent material on soil properties. The nature of the parent material can be expressed in the soil profile in many ways, including color, texture, and mineralogy. These properties can be related to physical and chemical properties, such as susceptibility to erosion, shrink-swell potential, and cation-exchange capacity.

The soils in Crenshaw County formed mainly in three kinds of parent material: loamy, sandy, and clayey marine sediments that have undergone considerable weathering in place; fluvial sediments on stream terraces and flood plains; and materials weathered from limestone, chalk, claystone, siltstone, or shale. Brantley, Cowarts, Greenville, Lucy, Luverne, Nankin, Orangeburg, Springhill, and Troup soils formed in the weathered sandy, loamy, and clayey marine sediments on uplands. Blanton, Bonifay, Bonneau, Compass, Dothan, and Fuquay soils formed in the fluvial sediments on high stream terraces and in sandy and loamy fluviomarine sediments on uplands. Bethera, Casemore, Eunola, Ocilla, Pelham, and Rains soils formed in the fluvial sediments on low stream terraces. Bibb, Iuka, Kinston, Leeper, Mantachie, and Marietta soils and Fluvaquents formed in relatively recently deposited fluvial sediments on flood plains. Hannon and Sumter soils formed in materials weathered from interbedded limestone, chalk, marl, and clayey marine sediments on uplands. Arundel soils formed in materials weathered from claystone or siltstone. Halso soils formed in materials weathered from soft, shale or shale-like sediments.

Climate

The climate of Crenshaw County is warm and humid. Summers are long and hot. Winters are short and mild, and the ground rarely freezes to a depth of more than a few inches. The climate is fairly even throughout the county and accounts for few differences between the soils. Rainfall averages about 56 inches a year. Detailed information about the climate in the county is given in the section “General Nature of the County” and in tables 1, 2, and 3.

The mild, humid climate favors rapid decomposition of organic matter and increases the rate of chemical reactions in the soil. The plentiful rainfall leaches large amounts of soluble bases and carries the less soluble fine particles downward, resulting in acid soils that have a sandy surface layer and that are low in natural fertility. The large amount of moisture and the warm temperature favor the growth of bacteria and fungi and speed the decomposition of organic matter, resulting in soils that have a low content of organic matter.

Relief

Relief varies significantly in Crenshaw County and generally can be related to the physiographic regions and geologic units in the county. It ranges from very low on the flood plains and stream terraces to very high on the dissected hills. Elevation ranges from about 200 to 550 feet above sea level.

Relief influences the formation of soil by affecting drainage, runoff, and erosion. Soil properties that are influenced by relief include the thickness of the solum, the thickness of the A horizon, the color of the profile, the degree of horizon differentiation, and the relative wetness of the profile. The thickness of the solum is one of the properties most obviously related to relief. Soils on nearly level summits tend to have a thicker solum than that of soils on steep side slopes.

Relief also affects moisture relationships in soil. It affects the depth to ground water and the amount of water that is available for plant growth. Generally, the water table is closer to the surface in depressions than on the high parts of the landscape.

Plants and Animals

Living organisms greatly influence the processes of soil formation and the characteristics of the soils. Trees, grasses, insects, earthworms, rodents, fungi, bacteria, and other forms of plant and animal life are affected by the other soil-forming factors. Animal activity is largely confined to the upper layers of the soil. The soil is continually mixed by this activity, which improves water infiltration and aeration. Plant roots create channels through which air and water move more rapidly, thereby improving soil structure and increasing the rate of chemical reactions in the soil.

Microorganisms help to decompose organic matter, which releases plant nutrients and chemicals into the soil. These nutrients are either used by the plants or leached from the soil. Human activities that influence the plant and animal populations in the soil affect the rate of soil formation.

The native vegetation of Crenshaw County consisted dominantly of loblolly-shortleaf pine and oak-pine forest types in the uplands and oak-hickory and oak-gum-cypress forest types in the bottomlands. The understory species were Southern wax myrtle, panicums, bluestems, American beautyberry, Indiangrass, longleaf uniola, and flowering dogwood. These species represent only a very limited number of the wide variety of those that once grew in the county but can be used as a guide to the plants presently in the county.

The plant communities in the county are also reflected in the distribution of species of fauna. Animals have an impact on the soil properties of a particular area. For example, ants, worms, moles, and gophers can improve aeration in a compacted soil. Microbes that thrive in a particular plant community react to various soil conditions and consequently influence the soil profile by providing decayed organic matter and nitrogen to the soil matrix.

Time

If all other factors of soil formation are equal, the degree of soil formation is in direct proportion to time. If soil-forming factors have been active for a long time, horizon development is stronger than if these same factors have been active for a relatively short time. Some parent materials are more easily weathered than others. The rate of weathering is very much dependent on the mineral composition and degree of consolidation of the parent material. “Time zero” for soil formation is considered to be that point in time when fresh parent material is first exposed to the other soil-forming factors. Commonly, this is a catastrophic occurrence, such as a flood, a change in topography resulting from a geologic event, a severe episode of erosion, or the influence of humans on the landscape.

Geologically, the soils in Crenshaw County are relatively young. The youngest soils are the alluvial soils on active flood plains along streams and rivers. These soils receive deposits of sediment and are undergoing a cumulative soil-forming process. In most cases, these young soils have weakly defined horizons, mainly because the soil-forming processes have only been active for a short time. Bibb, Iuka, Kinston, Leeper, Mantachie, and Marietta soils are examples of young soils.

The soils on terraces along the Conecuh River and other major streams are older than the soils on flood plains but are still relatively young. Although the soils on terraces formed in material deposited by the river or stream, the soils are no longer reached by frequent overflows because the channel is now deeper. Many of these soils have relatively strong horizon development. Bonifay, Bonneau, Dothan, and Fuquay soils are examples of soils on high stream terraces of varying age and elevation. Bethera, Casemore, Eunola, Ocilla, Pelham, and Rains soils are examples of soils on low stream terraces of varying age.

Soils on uplands are generally older than soils on terraces or flood plains and range in age from young to very old. The degree of soil development depends on landscape position and the composition of the parent material. Arundel, Brantley, Greenville, Lucy, Luverne, Nankin, Springhill, and Troup soils are examples of soils on the hilly uplands. Soils on uplands of the Blackland Prairie have undergone considerable weathering but are relatively weakly developed because of the high content of smectitic clays and the depth to bedrock. Hannon and Sumter soils are examples of soils on uplands of the Blackland Prairie.

Processes of Horizon Differentiation

The main processes involved in the formation of soil horizons are accumulation of organic matter, leaching of calcium carbonate and other bases, reduction and transfer of iron, and formation and translocation of silicate clay minerals. These processes can occur in combination or individually, depending on the integration of the factors of soil formation.

Most soils have four main horizons. The A horizon is the surface layer. It is the horizon of maximum accumulation of organic matter. It is commonly darker than horizons below it because of the influence of organic matter. Organic matter has accumulated to form an A horizon in all the soils in the county. The content of organic matter varies between soils because of differences in relief, wetness, and natural fertility.

The E horizon, which is usually called the subsurface layer, occurs in many of the soils in the county, especially those on the older landforms. It is the horizon of maximum loss of soluble or suspended material. It commonly is lighter in color and coarser in texture than the overlying and underlying horizons. Fuquay and Troup soils have both an A horizon and an E horizon. Other soils have an A horizon but do not have an E horizon. Bibb, Mantachie, and Leeper soils are examples.

The B horizon, which is usually called the subsoil, is directly below the A or E horizon. It is the horizon of maximum accumulation of dissolved or suspended material, such as iron or clay. Soils on old, stable landforms generally have a thick, well-structured B horizon. Dothan, Faceville, and Orangeburg soils are examples. Soils on flood plains either do not have a B horizon or have a weakly developed B horizon. Bibb, Iuka, and Mantachie soils are examples.

The C horizon is the substratum. It has been affected very little by the soil forming processes, but it may be somewhat modified by weathering.

The chemical reduction and transfer of iron, called gleying, is evident in the wet soils in the county. Gleying results in gray colors in the subsoil and other horizons. The gray colors indicate the reduction and loss of iron and manganese. The horizons of some soils, such as Dothan, Halso, and Mantachie soils, have reddish and brownish redoximorphic features, which indicate a segregation of iron.

Leaching of carbonates and bases has occurred in most of the soils of the county. This process contributes to the development of distinct horizons, naturally low fertility, and acid reaction of most of the soils in the uplands.

Some soils on the Blackland Prairie formed in materials weathered from interbedded limestone, chalk, and marl. These soils have medium natural fertility and are alkaline, either in the lower part or throughout the profile. Hannon and Sumter soils are examples.

In uniform materials, natural drainage generally is closely associated with slope or relief and generally affects the color of the soil. Soils that formed under good drainage conditions have a subsoil that is uniformly bright in color. Examples are Greenville, Lucy, and Orangeburg soils. Soils that formed under poor drainage conditions have grayish colors. Bethera, Bibb, Kinston, and Rains soils are examples. Soils that formed where drainage is intermediate have a subsoil that is mottled in shades of gray, red, and brown. Casemore, Eunola, Iuka, Mantachie, and Ocilla soils are examples. The grayish color persists even after artificial drainage is provided.

In steep areas, the surface soil erodes. In low areas and in depressions, soil materials commonly accumulate and add to the thickness of the surface layer. In some areas, the rate of formation of soil material and the rate of removal of soil material are in equilibrium.

References

Alabama Department of Agriculture and Industries. 2002. Alabama agricultural statistics. Bulletin 44.

Alabama Department of Archives and History. No date. Alabama counties. http://www.archives.state.al.us/counties/crenshaw.html

American Association of State Highway and Transportation Officials (AASHTO). 2000. Standard specifications for transportation materials and methods of sampling and testing. 20th edition, 2 volumes.

American Society for Testing and Materials (ASTM). 2001. Standard classification of soils for engineering purposes. ASTM Standard D 2487–00.

Beck, Donald E. 1962. Yellow-poplar site index curves. U.S. Department of Agriculture, Forest Service, Southeastern Forest Experiment Station Research Note 180.

Broadfoot, Walter M., and R.M. Krinard. 1959. Guide for evaluating sweetgum sites. U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station Occasional Paper 176.

Broadfoot, Walter M. 1963. Guide for evaluating water oak sites. U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station Research Paper SO–1.

Coile, T.S., and F.X. Schumacher. 1953. Site index curves of young stands of loblolly and shortleaf pines in the Piedmont Plateau Region. Journal of Forestry 51: 432–435.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS–79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. February 24, 1995. Hydric soils of the United States.

Hajek, B.F., F. Adams, and J.T. Cope, Jr. 1972. Rapid determination of exchangeable bases, acidity, and base saturation for soil characterization. Soil Science Society of America Journal, volume 36.

Hartselle, A.J., and M.J. Brown. 2000. Forest statistics for Alabama. U.S. Department of Agriculture, Forest Service Research Bulletin SRS–67. http://www.forestry.state.al.us/publication/PDFs/2000alstsrv.pdf

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

McWilliams, Jr., R.G., J.G. Newton, and J.C. Scott. 1968. Geologic map of Crenshaw County, Alabama. Geologic Survey of Alabama, map 68.

National Research Council. 1995. Wetlands: Characteristics and boundaries

Sapp, C. Daniel, and J. Emplaincourt. 1975. Physiographic regions of Alabama. Geologic Survey of Alabama, map 168.

Schoeneberger, P.J., D.A. Wysocki, E.C. Benham, and W.D. Broderson, editors. 2002. Field book for describing and sampling soils. Version 2.0. U.S. Department of Agriculture, Natural Resources Conservation Service.

Smith, W.E., O.M. Clarke, Jr., T.W. Daniel, Jr., and M.W. Szabo. 1966. Mineral resources of Crenshaw County, Alabama. Geologic Survey of Alabama, map 43.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2003. Keys to soil taxonomy. 9th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Stroud, J.F., L.R. Schoenmann, H.C. Smith, and C.B. Manifold. 1924. Soil survey of Crenshaw County, Alabama. U.S. Department of Agriculture, Bureau of Soils.

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y–87–1.

United States Department of Agriculture. 1976. Volume, yield, and stand tables for second growth southern pines. Forest Service Miscellaneous Publication 50.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://soils.usda.gov

United States Department of Agriculture, Natural Resources Conservation Service. 2004. Soil survey laboratory methods manual. Soil Survey Investigations Report 42, Version 4.0.

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.

United States Department of Commerce, Bureau of the Census. 2004. Alabama quick facts. http://quickfacts.census.gov

Glossary

ABC soil. A soil having an A, a B, and a C horizon.

AC soil. A soil having only an A and a C horizon. Commonly, such soil formed in recent alluvium or on steep, rocky slopes.

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.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

Alpha,alpha-dipyridyl. A dye that when dissolved in 1N ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction indicates a type of redoximorphic feature.

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 in which a slope faces.

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.

Basal area. The area of a cross section of a tree, generally referring to the section at breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

Bedding planes. Fine strata, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediment.

Bedding system. A drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Bench terrace. A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.

Bisequum. Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.

Bottom land. The normal flood plain of a stream, subject to flooding.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Breast height. An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.

Brush management. Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.

Cable yarding. A method of moving felled trees to a nearby central area for transport to a processing facility. Most cable yarding systems involve use of a drum, a pole, and wire cables in an arrangement similar to that of a rod and reel used for fishing. To reduce friction and soil disturbance, felled trees generally are reeled in while one end is lifted or the entire log is suspended.

Calcareous soil. A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.

Canopy. The leafy crown of trees or shrubs. (See Crown.)

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Catena. A sequence, or “chain,” of soils on a landscape that formed in similar kinds of parent material but have different characteristics as a result of differences in relief and drainage.

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.

Chemical treatment. Control of unwanted vegetation through the use of chemicals.

Chiseling. Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.

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. Low-chroma zones having a low content of iron, manganese, and clay because of the chemical reduction of iron and manganese and the removal of iron, manganese, and clay. A type of redoximorphic depletion.

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 slowly permeable soil horizon that contains much more clay than the horizons above it. A claypan is commonly hard when dry and plastic or stiff when wet.

Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.

COLE (coefficient of linear extensibility). See Linear extensibility.

Colluvium. Soil material or rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

Complex slope. Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.

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. Cemented bodies with crude internal symmetry organized around a point, a line, or a plane. They typically take the form of concentric layers visible to the naked eye. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up concretions. If formed in place, concretions of iron oxide or manganese oxide are generally considered a type of redoximorphic concentration.

Conservation cropping system. Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

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."

Contour stripcropping. Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

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.

Corrosion. Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.

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.

Cropping system. Growing crops according to a planned system of rotation and management practices.

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.

Cross-slope farming. Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.

Crown. The upper part of a tree or shrub, including the living branches and their foliage.

Cuesta. A hill or ridge that has a gentle slope on one side and a steep slope on the other; specifically, an asymmetric, homoclinal ridge capped by resistant rock layers of slight or moderate dip.

Culmination of the mean annual increment (CMAI). The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Decreasers. The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Dense layer (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

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.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Divided-slope farming. A form of field stripcropping in which crops are grown in a systematic arrangement of two strips, or bands, across the slope to reduce the hazard of water erosion. One strip is in a close-growing crop that provides protection from erosion, and the other strip is in a crop that provides less protection from erosion. This practice is used where slopes are not long enough to permit a full stripcropping pattern to be used.

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.

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.

Endosaturation. A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.

Ephemeral stream. A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.

Episaturation. A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.

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.

Escarpment. A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Synonym: scarp.

Fallow. Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grain is grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.

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*.

Fill slope. A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.

Fine textured soil. Sandy clay, silty clay, or clay.

Firebreak. Area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of firefighters and equipment. Designated roads also serve as firebreaks.

First bottom. The normal flood plain of a stream, subject to frequent or occasional flooding.

Flood plain. A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

Fluvial. Of or pertaining to rivers; produced by river action, as a fluvial plain.

Footslope. The position that forms the inner, gently inclined surface at the base of a hillslope. In profile, footslopes are commonly concave. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

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.

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.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Graded stripcropping. Growing crops in strips that grade toward a protected waterway.

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 miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. 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 to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Head slope. 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.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A natural elevation 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; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

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.

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.

Increasers. Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasers commonly are the shorter plants and the less palatable to livestock.

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.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Interfluve. An elevated area between two drainageways that sheds water to those drainageways.

Intermittent stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Iron depletions. Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Basin.—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

Knoll. A small, low, rounded hill rising above adjacent landforms.

K_{sat}. Saturated hydraulic conductivity. (See Permeability.)

Landslide. The rapid downhill movement of a mass of soil and loose rock, generally when wet or saturated. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

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.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Low strength. The soil is not strong enough to support loads.

Marl. An earthy, unconsolidated deposit consisting chiefly of calcium carbonate mixed with clay in approximately equal amounts.

Masses. Concentrations of substances in the soil matrix that do not have a clearly defined boundary with the surrounding soil material and cannot be removed as a discrete unit. Common compounds making up masses are calcium carbonate, gypsum or other soluble salts, iron oxide, and manganese oxide. Masses consisting of iron oxide or manganese oxide generally are considered a type of redoximorphic concentration.

Mechanical treatment. Use of mechanical equipment for seeding, brush management, and other management practices.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

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. An area that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

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).

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Neutral soil. A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)

Nodules. Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.

Nose slope. A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent.

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

Paleoterrace. An erosional remnant of a terrace that retains the surface form and alluvial deposits of its origin but was not emplaced by, and commonly does not grade to, a present-day stream or drainage network.

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.

Pedisediment. A thin layer of alluvial material that mantles an erosion surface and has been transported to its present position from higher lying areas of the erosion surface.

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 0.0015 inch
Very slow	0.0015 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

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plinthite. The sesquioxide-rich, humus-poor, highly weathered mixture of clay with quartz and other diluents. It commonly appears as red mottles, usually in platy, polygonal, or reticulate patterns. Plinthite changes irreversibly to an ironstone hardpan or to irregular aggregates on repeated wetting and drying, especially if it is exposed also to heat from the sun. In a moist soil, plinthite can be cut with a spade. It is a form of laterite.

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.

Poorly graded. Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in 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. Nodules, concretions, soft masses, pore linings, and other features resulting from the accumulation of iron or manganese oxide. An indication of chemical reduction and oxidation resulting from saturation.

Redoximorphic depletions. Low-chroma zones from which iron and manganese oxide or a combination of iron and manganese oxide and clay has been removed. These zones are indications of the chemical reduction of iron resulting from saturation.

Redoximorphic features. Redoximorphic concentrations, redoximorphic depletions, reduced matrices, a positive reaction to alpha,alpha-dipyridyl, and other features indicating the chemical reduction and oxidation of iron and manganese compounds resulting from saturation.

Reduced matrix. A soil matrix that has low chroma in situ because of chemically reduced iron (Fe II). The chemical reduction results from nearly continuous wetness. The matrix undergoes a change in hue or chroma within 30 minutes after exposure to air as the iron is oxidized (Fe III). A type of redoximorphic feature.

Regolith. The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose earth material above the solid rock.

Relief. The elevations or inequalities of a land surface, considered collectively.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.

Rill. A steep-sided channel resulting from accelerated erosion. A rill generally is a few inches deep and not wide enough to be an obstacle to farm machinery.

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.
Root zone. The part of the soil that can be penetrated by plant roots.
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.
Sandstone. Sedimentary rock containing dominantly sand-sized particles.
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.
Scarification. The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.
Second bottom. The first terrace above the normal flood plain (or first bottom) of a river.
Sedimentary rock. Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.
Sequum. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)
Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.
Shale. Sedimentary rock formed by the hardening of a clay deposit.
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 position that forms the uppermost inclined surface near the top of a hillslope. It is a transition from backslope to summit. The surface is dominantly convex in profile and erosional in origin.
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. A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel.
Silica. A combination of silicon and oxygen. The mineral form is called quartz.
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. Sedimentary rock made up of dominantly silt-sized particles.
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.
Sinkhole. A depression in the landscape where limestone has been dissolved.
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. Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.

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:

Level	0 to 1 percent
Nearly level	0 to 2 percent
Very gently sloping	1 to 3 percent
Gently sloping	2 to 5 percent
Moderately sloping	5 to 8 percent
Strongly sloping	8 to 15 percent
Moderately steep	15 to 25 percent
Steep	25 to 35 percent
Very steep	35 percent and higher

Classes for complex slopes are as follows:

Nearly level	0 to 2 percent
Gently undulating	0 to 3 percent
Undulating	3 to 8 percent
Gently rolling	5 to 15 percent
Hilly	15 to 25 percent
Steep	15 to 35 percent
Very steep	35 percent and higher

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

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 over periods 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.

Stone line. A concentration of coarse fragments in a soil. Generally, it is indicative of an old weathered surface. In a cross section, the line may be one fragment or more thick. It generally overlies material that weathered in place and is overlain by recent sediment of variable thickness.

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.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

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).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

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.”

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

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. 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 (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

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 position that forms 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.

Upland. Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Variegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.

Weathering. All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

Well graded. Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

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 Highland Home, Alabama]

Month	Temperature						Precipitation				
				2 years in 10 will have--				2 years in 10 will have--			
	Average daily maximum	Average daily minimum	Average	Maximum temperature higher	Minimum temperature lower	Average number of growing degree	Average	Less than--	More than--	Average number of days with 0.10 inch	Average snowfall
	°F	*°F*	*°F*	*°F*	*°F*	*Units*	*In*	*In*	*In*		*In*
January-----	56.5	34.8	45.6	76	10	73	5.47	3.49	7.52	8	0.2
February----	61.4	37.7	49.6	81	16	114	5.41	2.89	7.78	6	.5
March-------	69.2	44.5	56.9	85	23	251	6.98	4.35	9.30	7	.2
April-------	75.9	50.4	63.1	89	32	397	4.39	1.95	6.77	5	.0
May---------	83.0	59.0	71.0	93	44	644	4.05	2.11	5.97	5	.0
June--------	88.3	65.9	77.1	98	54	811	4.69	2.41	6.51	6	.0
July--------	90.8	69.1	80.0	99	63	906	4.93	2.85	6.85	8	.0
August------	90.3	68.4	79.4	99	60	898	4.30	2.47	6.08	6	.0
September---	86.4	63.6	75.0	97	47	739	3.75	1.42	5.68	5	.0
October-----	77.8	52.5	65.1	91	34	471	2.69	0.76	4.39	3	.0
November----	68.1	44.2	56.2	85	25	228	4.65	2.48	6.59	5	.0
December----	59.9	37.6	48.8	79	15	111	4.56	2.75	6.14	6	.0
Yearly:											
Average---	75.6	52.3	64.0	---	---	---	---	---	---	---	---
Extreme---	105	-3	---	101	8	---	---	---	---	---	---
Total-----	---	---	---	---	---	5,642	55.88	45.27	62.22	70	1.0

* 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 Highland Home, Alabama]

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. 13	Mar. 19	Apr. 4
2 years in 10 later than--	Mar. 5	Mar. 13	Mar. 28
5 years in 10 later than--	Feb. 17	Mar. 1	Mar. 14
First freezing temperature in fall:			
1 year in 10 earlier than--	Nov. 19	Nov. 6	Oct. 25
2 years in 10 earlier than--	Now. 30	Nov. 13	Nov. 1
5 years in 10 earlier than--	Dec. 23	Nov. 26	Nov. 14

Table 3.--Growing Season

[Recorded in the period 1971-2000 at Highland Home, Alabama]

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	257	244	217
8 years in 10	275	254	226
5 years in 10	309	272	246
2 years in 10	343	291	266
1 year in 10	361	300	276

Table 4.--Suitability and Limitations of General Soil Map Units for Specified Uses

Map unit	Extent of area	Cultivated crops	Pasture and hay	Forestland	Urban uses
	Pct				
1: Brantley-Sumter-Hannon	6	Poorly suited: hazard of erosion, restricted use of equipment.	Poorly suited: hazard of erosion, restricted use of equipment.	Poorly suited: restricted use of equipment, seedling survival, hazard of erosion.	Poorly suited: slope, shrink-swell, restricted permeability.
2: Mantachie-Kinston-Iuka	10	Poorly suited: flooding, wetness, restricted use equipment.	Suited: flooding, wetness, restricted use of equipment	Suited: restricted use of equipment, seedling survival, plant competition.	Not suited: flooding, wetness.
3: Nankin-Orangeburg-Lucy	38	Poorly suited: hazard of erosion, restricted use of equipment, droughtiness.	Suited: restricted use of equipment, droughtiness, hazard of erosion.	Suited: restricted use of equipment, hazard of erosion, seedling survival.	Poorly suited: slope, restricted permeability.
4: Cowarts-Springhill-Troup	0.4	Poorly suited: hazard of erosion, restricted use of equipment, droughtiness.	Suited: restricted use of equipment, droughtiness, hazard of erosion.	Suited: restricted use of equipment, hazard of erosion, seedling survival.	Poorly suited: slope, restricted permeability.
5: Orangeburg-Dothan-Springhill	12	Suited: hazard of erosion.	Well suited	Well suited	Suited: slope, restricted permeability.
6: Orangeburg-Malbis	2	Suited: hazard of erosion.	Well suited	Well suited	Suited: restricted permeability.
7: Luverne-Troup-Smithdale	7	Poorly suited hazard of erosion, restricted use of equipment, droughtiness.	Poorly suited: restricted use of equipment, droughtiness, hazard of erosion.	Suited: restricted use of equipment, hazard of erosion, seedling survival.	Poorly suited: slope, restricted permeability, low strength, shrink-swell.
8: Fuquay-Bonifay-Dothan	8	Suited: hazard of erosion, droughtiness.	Suited: hazard of erosion, droughtiness.	Suited: seedling survival.	Suited: restricted permeability, wetness.

Table 4.--Suitability and Limitations of General Soil Map Units for Specified Uses--Continued

Map unit	Extent of area	Cultivated crops	Pasture and hay	Forestland	Urban uses
	Pct				
9: Troup-Lucy	3	Poorly suited: hazard of erosion, droughtiness.	Suited: hazard of erosion, droughtiness.	Suited: seedling survival, restricted use of equipment.	Suited: slope, droughtiness.
10: Compass	0.4	Well suited	Well suited	Well suited	Suited: restricted permeability, wetness.
11: Halso-Luverne	8.4	Poorly suited: restricted use of equipment, hazard of erosion.	Poorly suited: restricted use of equipment, hazard of erosion.	Suited: restricted use of equipment, hazard of erosion.	Poorly suited: slope, shrink-swell, restricted permeability, low strength.
12: Arundel-Halso	8.3	Poorly suited: restricted use of equipment, hazard of erosion.	Poorly suited: restricted use of equipment, hazard of erosion.	Suited: restricted use of equipment, hazard of erosion.	Poorly suited: slope, shrink-swell, restricted permeability, depth to rock.

Table 5.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
ArC	Arundel fine sandy loam, 2 to 8 percent slopes	5,300	1.4
ArE	Arundel fine sandy loam, 8 to 35 percent slopes	15,620	4.0
BbA	Bibb-Iuka complex, 0 to 1 percent slopes, frequently flooded	24,630	6.3
BcB	Blanton loamy sand, 0 to 5 percent slopes	1,640	0.4
BcC	Blanton loamy sand, 5 to 8 percent slopes	65	*
BfB	Bonifay loamy sand, 0 to 5 percent slopes	8,860	2.3
BfC	Bonifay loamy sand, 5 to 8 percent slopes	1,180	0.3
BoB	Bonneau loamy sand, 0 to 5 percent slopes	3,040	0.8
BrC	Brantley sandy loam, 2 to 8 percent slopes	2,230	0.6
BrE	Brantley sandy loam, 15 to 30 percent slopes	6,580	1.7
BrF	Brantley sandy loam, 30 to 50 percent slopes	2,195	0.6
CaA	Casemore loam, 0 to 1 percent slopes, rarely flooded	460	0.1
CmB	Compass loamy sand, 1 to 3 percent slopes	2,480	0.6
CoC	Cowarts sandy loam, 5 to 8 percent slopes	2,145	0.5
CtE	Cowarts-Troup complex, 8 to 20 percent slopes	1,760	0.5
DoA	Dothan sandy loam, 0 to 2 percent slopes	2,830	0.7
DoB	Dothan sandy loam, 2 to 5 percent slopes	7,730	2.0
DoC	Dothan sandy loam, 5 to 8 percent slopes	730	0.2
EuA	Eunola sandy loam, 0 to 2 percent slopes, rarely flooded	2,080	0.5
FaB	Faceville fine sandy loam, 2 to 5 percent slopes	1,540	0.4
FlA	Fluvaquents, ponded	3,860	1.0
FqB	Fuquay loamy fine sand, 0 to 5 percent slopes	16,550	4.2
FqC	Fuquay loamy fine sand, 5 to 8 percent slopes	5,280	1.4
GrA	Greenville sandy loam, 0 to 2 percent slopes	460	0.1
GrB	Greenville sandy loam, 2 to 5 percent slopes	2,720	0.7
GsC2	Greenville sandy clay loam, 5 to 8 percent slopes, eroded	1,070	0.3
GtD3	Greenville clay loam, 8 to 15 percent slopes, severely eroded	180	*
HaC2	Halso fine sandy loam, 2 to 8 percent slopes, eroded	6,200	1.6
HaE2	Halso fine sandy loam, 8 to 20 percent slopes, eroded	10,350	2.6
HsC2	Hannon-Sumter complex, 2 to 8 percent slopes, eroded	1,240	0.3
ImA	Iuka-Marietta complex, 0 to 2 percent slopes, frequently flooded	860	0.2
LaA	Leeper-Marietta complex, 0 to 2 percent slopes, occasionally flooded	2,180	0.6
LcB	Lucy loamy sand, 0 to 5 percent slopes	9,580	2.4
LcC	Lucy loamy sand, 5 to 8 percent slopes	1,510	0.4
LvB	Luverne sandy loam, 2 to 5 percent slopes	5,130	1.3
LvC	Luverne sandy loam, 5 to 8 percent slopes	3,500	0.9
LvD	Luverne sandy loam, 8 to 15 percent slopes	2,850	0.7
LvE	Luverne sandy loam, 15 to 25 percent slopes	6,280	1.6
MbB	Malbis fine sandy loam, 1 to 3 percent slopes	3,180	0.8
MbC	Malbis fine sandy loam, 5 to 8 percent slopes	890	0.2
MKA	Mantachie, Kinston, and Iuka soils, 0 to 1 percent slopes, frequently flooded	29,350	7.5
NsE	Nankin-Springhill-Lucy complex, 15 to 35 percent slopes	85,400	21.8
OrA	Orangeburg sandy loam, 0 to 2 percent slopes	4,480	1.1
OrB	Orangeburg sandy loam, 2 to 5 percent slopes	29,540	7.6
OrC	Orangeburg sandy loam, 5 to 8 percent slopes	8,720	2.2
OuC	Orangeburg-Urban land complex, 0 to 8 percent slopes	1,080	0.3
PoA	Pelham-Ocilla complex, 0 to 2 percent slopes, rarely flooded	7,950	2.0
Pt	Pits, borrow	115	*
RbA	Rains-Bethera complex, 0 to 1 percent slopes, occasionally flooded	2,580	0.7
ReA	Red Bay fine sandy loam, 0 to 2 percent slopes	370	*
ReB	Red Bay fine sandy loam, 2 to 5 percent slopes	640	0.2
SmD	Smithdale sandy loam, 8 to 15 percent slopes	730	0.2
SpC2	Springhill sandy loam, 5 to 8 percent slopes, eroded	1,300	0.3
SpD2	Springhill sandy loam, 8 to 15 percent slopes, eroded	12,420	3.2
StE2	Sumter-Hannon complex, 12 to 35 percent slopes, eroded	2,910	0.7
TaB	Troup loamy sand, 0 to 5 percent slopes	11,650	3.0
TaC	Troup loamy sand, 5 to 8 percent slopes	1,800	0.5
TaD	Troup loamy sand, 8 to 15 percent slopes	1,420	0.4
TgD	Troup-Alaga complex, 5 to 15 percent slopes	250	*
ToE	Troup-Lucy-Luverne complex, 15 to 35 percent slopes	3,000	0.8

See footnote at end of table.

Table 5.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
TrD	Troup-Luverne complex, 5 to 15 percent slopes	210	*
TsE	Troup-Luverne-Smithdale complex, 15 to 35 percent slopes	1,140	0.3
UdC	Udorthents, gently sloping, smooth	1,710	0.4
UdE	Udorthents, hilly, rough	850	0.2
Ur	Urban land	80	*
W	Water	2,160	0.6
WmB	Williamsville fine sand, 2 to 5 percent slopes	1,530	0.4
WmC	Williamsville fine sand, 5 to 8 percent slopes	680	0.2
	Total	391,030	100.0

* Less than 0.1 percent.

Table 6.--Land Capability Classes and Yields per Acre of Crops

[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	Peanuts	Soybeans	Wheat
		Bu	*Lbs*	*Lbs*	*Bu*	*Bu*
ArC:		---	---	---	---	---
Arundel	4e					
ArE:		---	---	---	---	---
Arundel	7e					
BbA:		---	---	---	---	---
Bibb	5w					
Iuka	5w					
BcB:		50	500	2,200	20	---
Blanton	3s					
BcC:		45	500	2,400	20	---
Blanton	4s					
BfB:		50	500	2,200	20	---
Bonifay	3s					
BfC:		45	500	2,400	20	---
Bonifay	4s					
BoB:		65	500	2,900	25	---
Bonneau	2s					
BrC:		---	---	---	---	---
Brantley	4e					
BrE:		---	---	---	---	---
Brantley	7e					
BrF:		---	---	---	---	---
Brantley	7e					
CaA:		---	---	---	---	---
Casemore	2w					
CmB:		75	500	3,000	30	40
Compass	2e					
CoC:		70	600	1,800	25	---
Cowarts	3e					
CtE:		---	---	---	---	---
Cowarts	6e					
Troup	6s					
DoA:		115	900	4,000	40	50
Dothan	1					
DoB:		105	800	3,800	35	45
Dothan	2e					
DoC:		95	750	3,600	30	40
Dothan	3e					

Table 6.--Land Capability Classes and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Corn	Cotton lint	Peanuts	Soybeans	Wheat
		Bu	*Lbs*	*Lbs*	*Bu*	*Bu*
EuA:		100	---	---	35	---
Eunola------------------	2w					
FaB:		95	800	3,000	25	---
Faceville---------------	2e					
FlA:		---	---	---	---	---
Fluvaquents-------------	7w					
FqB:		85	650	2,900	30	---
Fuquay------------------	2s					
FqC:		75	600	2,600	25	---
Fuquay------------------	3s					
GrA:		110	800	3,000	30	50
Greenville--------------	1					
GrB:		95	800	3,000	25	45
Greenville--------------	2e					
GsC2:		85	700	2,600	25	40
Greenville--------------	4e					
GtD3:		---	---	---	---	---
Greenville--------------	6e					
HaC2:		---	---	---	---	---
Halso-------------------	4e					
HaE2:		---	---	---	---	---
Halso-------------------	6e					
HsC2:		---	---	---	---	---
Hannon------------------	4e					
Sumter------------------	4e					
ImA:		---	---	---	---	---
Iuka--------------------	5w					
Marietta----------------	5w					
LaA:		---	---	---	---	---
Leeper------------------	4w					
Marietta----------------	3w					
LcB:		80	650	3,000	33	---
Lucy--------------------	2s					
LcC:		70	600	2,500	25	---
Lucy--------------------	3s					
LvB:		70	700	---	30	---
Luverne-----------------	3e					
LvC:		70	600	---	25	---
Luverne-----------------	4e					
LvD:		---	---	---	---	---
Luverne-----------------	6e					
LvE:		---	---	---	---	---
Luverne-----------------	7e					

Table 6.--Land Capability Classes and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Corn	Cotton lint	Peanuts	Soybeans	Wheat
		Bu	*Lbs*	*Lbs*	*Bu*	*Bu*
MbB:		100	750	3,500	35	35
Malbis	2e					
MbC:		80	650	3,000	30	30
Malbis	3e					
MKA:		---	---	---	---	---
Mantachie	5w					
Kinston	6w					
Iuka	5w					
NsE:		---	---	---	---	---
Nankin	7e					
Springhill	7e					
Lucy	7e					
OrA:		100	900	3,500	35	---
Orangeburg	1					
OrB:		110	900	4,000	35	---
Orangeburg	2e					
OrC:		95	800	3,200	35	---
Orangeburg	3e					
OuC:		120	900	4,000	45	---
Orangeburg	3e					
Urban land	8s					
PoA:		---	---	---	---	---
Pelham	4w					
Ocilla	3w					
Pt:		---	---	---	---	---
Pits	8s					
RbA:		---	---	---	---	---
Rains	4w					
Bethera	4w					
ReA:		110	800	3,800	35	50
Red Bay	1					
ReB:		90	750	3,600	30	45
Red Bay	2e					
SmD:		55	400	---	25	---
Smithdale	4e					
SpC2:		---	---	---	---	---
Springhill	3e					
SpD2:		---	---	---	---	---
Springhill	6e					
StE2:		---	---	---	---	---
Sumter	7e					
Hannon	7e					
TaB:		60	500	2,200	25	---
Troup	3s					

Table 6.--Land Capability Classes and Yields per Acre of Crops--Continued

Map symbol and soil name	Land capability	Corn	Cotton lint	Peanuts	Soybeans	Wheat
		Bu	*Lbs*	*Lbs*	*Bu*	*Bu*
TaC:		55	450	1,800	22	---
Troup-------------------	4s					
TaD:		---	---	---	---	---
Troup-------------------	6s					
TgD:		---	---	---	---	---
Troup-------------------	6s					
Alaga-------------------	6s					
ToE:		---	---	---	---	---
Troup-------------------	7e					
Lucy--------------------	7e					
Luverne-----------------	7e					
TrD:		---	---	---	---	---
Troup-------------------	6s					
Luverne-----------------	6e					
TsE:		---	---	---	---	---
Troup-------------------	7e					
Luverne-----------------	7e					
Smithdale---------------	7e					
UdC:		---	---	---	---	---
Udorthents--------------	4s					
UdE:		---	---	---	---	---
Udorthents--------------	7e					
Ur:		---	---	---	---	---
Urban land--------------	8s					
WmB:		70	700	---	30	---
Williamsville-----------	3e					
WmC:		70	600	---	25	---
Williamsville-----------	4e					

Table 7.--Yields per Acre of Pasture and Hay

[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	Bahiagrass	Bahiagrass hay	Cool-season grasses	Improved bermudagrass	Improved bermudagrass hay
	AUM	*Tons*	*AUM*	*AUM*	*Tons*
ArC------------- Arundel	6	---	---	---	---
ArE. Arundel					
BbA. Bibb Iuka					
BcB------------- Blanton	7.2	3	---	7.5	3.5
BcC------------- Blanton	7.2	3	---	7.5	3.5
BfB------------- Bonifay	7.2	3	---	7.5	3.5
BfC------------- Bonifay	7.2	3	---	7.5	3.5
BoB------------- Bonneau	8	3.5	---	8.5	4
BrC------------- Brantley	7	4	4.5	8	4.5
BrE. Brantley					
BrF. Brantley					
CaA------------- Casemore	7	3	---	7.5	4
CmB------------- Compass	7.5	6	4	9	7
CoC------------- Cowarts	6	4	---	7.5	4.5
CtE------------- Cowarts Troup	4	---	---	5.5	---
DoA------------- Dothan	9	4.5	5	10	5
DoB------------- Dothan	9	4.5	5	10	5
DoC------------- Dothan	8	4	5	9	4.5

Table 7.--Yields per Acre of Pasture and Hay--Continued

Map symbol and soil name	Bahiagrass	Bahiagrass hay	Cool-season grasses	Improved bermudagrass	Improved bermudagrass hay
	AUM	*Tons*	*AUM*	*AUM*	*Tons*
EuA------------- Eunola	8	3.5	4.5	9	4.5
FaB------------- Faceville	9.5	5	5	10.5	6
FlA. Fluvaquents					
FqB------------- Fuquay	8	4	---	8.5	4.5
FqC------------- Fuquay	7.5	4	---	8	4.5
GrA------------- Greenville	9.5	5	5	10.5	---
GrB------------- Greenville	9.5	5	5	10.5	---
GsC2------------ Greenville	8	---	---	9	---
GtD3. Greenville					
HaC2------------ Halso	5	---	---	6	---
HaE2. Halso					
HsC2. Hannon Sumter					
ImA------------- Iuka Marietta	6	---	---	7	---
LaA------------- Leeper Marietta	7	---	---	8	---
LcB------------- Lucy	8	4	---	8.5	---
LcC------------- Lucy	7.5	---	---	8.5	---
LvB------------- Luverne	7.5	4.5	4.5	8.5	4.5
LvC------------- Luverne	7	4	4.5	8	4.5
LvD------------- Luverne	7	---	---	7.5	---

Table 7.--Yields per Acre of Pasture and Hay--Continued

Map symbol and soil name	Bahiagrass	Bahiagrass hay	Cool-season grasses	Improved bermudagrass	Improved bermudagrass hay
	AUM	*Tons*	*AUM*	*AUM*	*Tons*
LvE------------- Luverne					
MbB------------- Malbis	9	4.5	5	10	5
MbC------------- Malbis	8	4	5	9	4.5
MKA------------- Mantachie Kinston Iuka	6	---	---	7	---
NsE. Nankin Springhill Lucy					
OrA------------- Orangeburg	9.5	5	5	10.5	6
OrB------------- Orangeburg	9.5	5	5	10.5	6
OrC------------- Orangeburg	8	4	---	9.5	5
OuC. Orangeburg Urban land					
PoA. Pelham Ocilla					
Pt. Pits					
RbA. Rains Bethera					
ReA------------- Red Bay	9.5	5	5	10.5	6
ReB------------- Red Bay	9.5	5	5	10.5	6
SmD------------- Smithdale	8	---	---	8.5	---
SpC2------------ Springhill	8	---	---	8.5	---
SpD2------------ Springhill	8	---	---	8.5	---
StE2. Sumter Hannon					

Table 7.--Yields per Acre of Pasture and Hay--Continued

Map symbol and soil name	Bahiagrass	Bahiagrass hay	Cool-season grasses	Improved bermudagrass	Improved bermudagrass hay
	AUM	*Tons*	*AUM*	*AUM*	*Tons*
TaB------------- Troup	7.2	3	---	7.5	3.5
TaC------------- Troup	7.2	---	---	7.5	---
TaD------------- Troup	5.5	---	---	6.5	---
TgD------------- Troup Alaga	5	---	---	6	---
ToE. Troup Lucy Luverne					
TrD------------- Troup Luverne	6	---	---	7	---
TsE. Troup Luverne Smithdale					
UdC------------- Udorthents	4	---	---	5	---
UdE. Udorthents					
Ur. Urban land					
WmB------------- Williamsville	7.5	4.5	4.5	8.5	4.5
WmC------------- Williamsville	7	4	4.5	8.5	4.5

Table 8.--Forestland Productivity

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
ArC:				
Arundel-----------------	Loblolly pine-------	85	120	Loblolly pine,
	Shortleaf pine------	75	120	shortleaf pine
ArE:				
Arundel-----------------	Loblolly pine-------	85	120	Loblolly pine,
	Shortleaf pine------	75	120	shortleaf pine
BbA:				
Bibb--------------------	Loblolly pine-------	95	157	Green ash,
	Sweetgum------------	85	100	loblolly pine,
	Water oak-----------	85	86	sweetgum
Iuka--------------------	Loblolly pine-------	100	154	Loblolly pine,
	Eastern cottonwood--	105	141	yellow-poplar,
	Sweetgum------------	100	138	eastern cottonwood
	Water oak-----------	100	98	
BcB:				
Blanton-----------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	75	100	longleaf pine
BcC:				
Blanton-----------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	75	100	longleaf pine
BfB:				
Bonifay-----------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	75	100	longleaf pine
BfC:				
Bonifay-----------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	75	100	longleaf pine
BoB:				
Bonneau-----------------	Loblolly pine-------	85	120	Loblolly pine,
	Longleaf pine-------	80	114	longleaf pine
BrC:				
Brantley----------------	Loblolly pine-------	90	131	Loblolly pine,
	Shortleaf pine------	75	120	longleaf pine
	Longleaf pine	70	80	
BrE:				
Brantley----------------	Loblolly pine-------	85	120	Loblolly pine,
	Shortleaf pine------	75	114	longleaf pine
	Longleaf pine	70	80	
BrF:				
Brantley----------------	Loblolly pine-------	85	120	Loblolly pine,
	Shortleaf pine------	75	114	longleaf pine
	Longleaf pine	70	80	
CaA:				
Casemore----------------	Loblolly pine-------	90	131	Loblolly pine,
	Sweetgum------------	90	106	sweetgum,
	Water oak-----------	80	79	cherrybark oak,
	Yellow-poplar-------	85	81	yellow-poplar

Table 8.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
CmB:				
Compass	Loblolly pine	95	131	Loblolly pine, longleaf pine
	Longleaf pine	75	86	
CoC:				
Cowarts	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	75	72	
CtE:				
Cowarts	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	75	72	
Troup	Loblolly pine	80	114	Loblolly pine, longleaf pine
	Longleaf pine	70	86	
DoA:				
Dothan	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	100	
DoB:				
Dothan	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	100	
DoC:				
Dothan	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	100	
EuA:				
Eunola	Loblolly pine	95	142	American sycamore, loblolly pine, sweetgum, yellow-poplar, cherrybark oak
	Yellow-poplar	95	98	
	Sweetgum	100	138	
	Water oak	95	92	
	Cherrybark oak	100	151	
FaB:				
Faceville	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	70	79	
FlA:				
Fluvaquents	Baldcypress	80	100	Baldcypress, green ash
	Blackgum	---	---	
	Red maple	---	---	
FqB:				
Fuquay	Loblolly pine	80	114	Loblolly pine, longleaf pine
	Longleaf pine	75	86	
FqC:				
Fuquay	Loblolly pine	80	114	Loblolly pine, longleaf pine
	Longleaf pine	75	86	
GrA:				
Greenville	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	70	86	
GrB:				
Greenville	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	70	86	

Table 8.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
GsC2:				
Greenville	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	70	86	
GtD3:				
Greenville	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	70	86	
HaC2:				
Halso	Loblolly pine	85	120	Loblolly pine
	Shortleaf pine	75	120	
HaE2:				
Halso	Loblolly pine	85	120	Loblolly pine
	Shortleaf pine	75	120	
HsC2:				
Hannon	Loblolly pine	80	114	Loblolly pine
	Longleaf pine	70	86	
	Eastern redcedar	50	57	
	Shortleaf pine	70	86	
Sumter	Eastern redcedar	40	43	Eastern redcedar
ImA:				
Iuka	Eastern cottonwood	105	141	Eastern cottonwood, loblolly pine, yellow-poplar
	Loblolly pine	100	154	
	Sweetgum	100	138	
	Water oak	100	98	
Marietta	American sycamore	105	143	American sycamore, eastern cottonwood, green ash, sweetgum, yellow-poplar
	Eastern cottonwood	105	143	
	Green ash	90	57	
	Sweetgum	100	138	
	Yellow-poplar	100	114	
LaA:				
Leeper	Cherrybark oak	95	147	Cherrybark oak, sweetgum, green ash, eastern cottonwood
	Eastern cottonwood	105	141	
	Sweetgum	95	132	
	Green ash	85	70	
Marietta	American sycamore	105	143	American sycamore, eastern cottonwood, green ash, sweetgum, yellow-poplar
	Eastern cottonwood	105	143	
	Green ash	90	57	
	Sweetgum	100	138	
	Yellow-poplar	100	114	
LcB:				
Lucy	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	75	86	
LcC:				
Lucy	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	75	86	
LvB:				
Luverne	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	70	79	

Table 8.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
LvC:				
Luverne	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	70	79	
LvD:				
Luverne	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	70	79	
LvE:				
Luverne	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	70	79	
MbB:				
Malbis	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	100	
MbC:				
Malbis	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	100	
MKA:				
Mantachie	Cherrybark oak	100	151	Cherrybark oak, loblolly pine, eastern cottonwood, green ash, sweetgum
	Eastern cottonwood	90	103	
	Green ash	80	49	
	Loblolly pine	100	154	
	Sweetgum	95	122	
Kinston	Loblolly pine	95	157	Green ash, loblolly pine, sweetgum
	Sweetgum	85	114	
	Water oak	85	86	
Iuka	Eastern cottonwood	105	141	Eastern cottonwood, loblolly pine, yellow-poplar
	Loblolly pine	100	154	
	Sweetgum	100	138	
	Water oak	100	98	
NsE:				
Nankin	Loblolly pine	80	114	Loblolly pine, longleaf pine
	Longleaf pine	70	86	
Springhill	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	75	86	
	Shortleaf pine	80	129	
	Southern red oak	80	57	
	Sweetgum	90	100	
Lucy	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	75	86	
OrA:				
Orangeburg	Loblolly pine	85	114	Loblolly pine, longleaf pine
	Longleaf pine	75	100	
OrB:				
Orangeburg	Loblolly pine	85	114	Loblolly pine, longleaf pine
	Longleaf pine	75	100	
OrC:				
Orangeburg	Loblolly pine	85	114	Loblolly pine, longleaf pine
	Longleaf pine	75	100	

Table 8.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
OuC:				
Orangeburg	Loblolly pine	85	114	Loblolly pine, longleaf pine
	Longleaf pine	75	100	
Urban land.				
PoA:				
Pelham	Loblolly pine	90	131	Loblolly pine, sweetgum
	Blackgum	80	114	
	Sweetgum	80	86	
	Water oak	75	72	
Ocilla	Loblolly pine	90	131	Loblolly pine, sweetgum
	Longleaf pine	75	90	
	Water oak	75	67	
Pt:				
Pits.				
RbA:				
Rains	Loblolly pine	90	143	Loblolly pine, green ash, sweetgum
	Sweetgum	90	112	
	Water oak	85	81	
Bethera	Loblolly pine	90	143	Loblolly pine, green ash, sweetgum
	Sweetgum	90	112	
	Water oak	85	81	
ReA:				
Red Bay	Loblolly pine	90	131	Longleaf pine, loblolly pine
	Longleaf pine	80	100	
ReB:				
Red Bay	Loblolly pine	90	131	Longleaf pine, loblolly pine
	Longleaf pine	80	100	
SmD:				
Smithdale	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	75	86	
SpC2:				
Springhill	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	75	86	
	Shortleaf pine	80	129	
	Southern red oak	80	57	
	Sweetgum	90	100	
SpD2:				
Springhill	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	75	86	
	Shortleaf pine	80	129	
	Southern red oak	80	57	
	Sweetgum	90	100	
StE2:				
Sumter	Eastern redcedar	40	43	Eastern redcedar

Table 8.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
StE2:				
Hannon------------------	Loblolly pine-------	80	114	Loblolly pine
	Longleaf pine-------	70	86	
	Eastern redcedar----	50	57	
	Shortleaf pine------	70	86	
TaB:				
Troup-------------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	70	86	longleaf pine
TaC:				
Troup-------------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	70	86	longleaf pine
TaD:				
Troup-------------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	70	86	longleaf pine
TgD:				
Troup-------------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	70	86	longleaf pine
Alaga-------------------	Loblolly pine-------	70	93	Loblolly pine,
	Longleaf pine-------	60	56	longleaf pine,
	Sand pine-----------	70	63	sand pine
ToE:				
Troup-------------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	70	86	longleaf pine
Lucy--------------------	Loblolly pine-------	85	120	Loblolly pine,
	Longleaf pine-------	75	86	longleaf pine
Luverne-----------------	Loblolly pine-------	90	131	Loblolly pine,
	Longleaf pine-------	70	79	longleaf pine
TrD:				
Troup-------------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	70	86	longleaf pine
Luverne-----------------	Loblolly pine-------	90	131	Loblolly pine,
	Longleaf pine-------	70	79	longleaf pine
TsE:				
Troup-------------------	Loblolly pine-------	80	114	Loblolly pine,
	Longleaf pine-------	70	86	longleaf pine
Luverne-----------------	Loblolly pine-------	90	131	Loblolly pine,
	Longleaf pine-------	70	79	longleaf pine
Smithdale---------------	Loblolly pine-------	90	131	Loblolly pine,
	Longleaf pine-------	75	86	longleaf pine
UdC:				
Udorthents--------------	Loblolly pine-------	80	100	Loblolly pine
UdE:				
Udorthents--------------	Loblolly pine-------	70	86	Loblolly pine

Table 8.--Forestland Productivity--Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Ur:				
Urban land.				
WmB:				
Williamsville-----------	Loblolly pine-------	90	131	Loblolly pine,
	Longleaf pine-------	75	86	longleaf pine
WmC:				
Williamsville-----------	Loblolly pine-------	90	131	Loblolly pine,
	Longleaf pine-------	75	86	longleaf pine

Table 9a.--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		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ArC:							
Arundel-------------	85	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
ArE:							
Arundel-------------	85	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
BbA:							
Bibb----------------	50	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
				Wetness	1.00		
				Low strength	0.50		
Iuka----------------	40	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
BcB:							
Blanton-------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
BcC:							
Blanton-------------	85	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
BfB:							
Bonifay-------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
BfC:							
Bonifay-------------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
BoB:							
Bonneau-------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
BrC:							
Brantley------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
BrE:							
Brantley------------	85	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
BrF:							
Brantley------------	85	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Low strength	0.50				

Table 9a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CaA:							
Casemore------------	90	Slight		Moderately suited		Severe	
				Low strength	0.50	Low strength	1.00
				Wetness	0.50		
CmB:							
Compass-------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
CoC:							
Cowarts-------------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
CtE:							
Cowarts-------------	50	Slight		Poorly suited		Moderate	
				Slope	1.00	Low strength	0.50
Troup---------------	40	Slight		Poorly suited		Moderate	
				Slope	1.00	Low strength	0.50
DoA:							
Dothan--------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
DoB:							
Dothan--------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
DoC:							
Dothan--------------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
EuA:							
Eunola--------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
FaB:							
Faceville-----------	90	Slight		Well suited		Moderate	
						Low strength	0.50
FlA:							
Fluvaquents---------	90	Severe		Poorly suited		Moderate	
		Flooding	1.00	Ponding	1.00	Low strength	0.50
				Flooding	1.00		
				Wetness	1.00		
FqB:							
Fuquay--------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
FqC:							
Fuquay--------------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
GrA:							
Greenville----------	90	Slight		Well suited		Moderate	
						Low strength	0.50

Table 9a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
GrB:							
Greenville----------	90	Slight		Well suited		Moderate	
						Low strength	0.50
GsC2:							
Greenville----------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
GtD3:							
Greenville----------	85	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
HaC2:							
Halso---------------	90	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
HaE2:							
Halso---------------	85	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
HsC2:							
Hannon--------------	50	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
				Stickiness; high plasticity index	0.50		
Sumter--------------	40	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
ImA:							
Iuka----------------	45	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
Marietta------------	40	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
				Low strength	0.50		
				Wetness	0.50		
LaA:							
Leeper--------------	50	Moderate		Moderately suited		Severe	
		Flooding	0.50	Flooding	0.50	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
				Wetness	0.50		
Marietta------------	35	Moderate		Moderately suited		Severe	
		Flooding	0.50	Flooding	0.50	Low strength	1.00
				Low strength	0.50		
				Wetness	0.50		
LcB:							
Lucy----------------	90	Slight		Well suited		Moderate	
						Low strength	0.50

Table 9a.--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
LcC:							
Lucy	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
LvB:							
Luverne	90	Slight		Well suited		Moderate	
						Low strength	0.50
LvC:							
Luverne	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
LvD:							
Luverne	85	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
LvE:							
Luverne	85	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
		Landslides	0.50	Landslides	0.50		
MbB:							
Malbis	90	Slight		Well suited		Moderate	
						Low strength	0.50
MbC:							
Malbis	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
MKA:							
Mantachie	40	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		
Kinston	25	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		
Iuka	20	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
NsE:							
Nankin	40	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Springhill	26	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Lucy	25	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
OrA:							
Orangeburg	90	Slight		Well suited		Moderate	
						Low strength	0.50

Table 9a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OrB:							
Orangeburg----------	90	Slight		Well suited		Moderate	
						Low strength	0.50
OrC:							
Orangeburg----------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
OuC:							
Orangeburg----------	50	Slight		Well suited		Moderate	
						Low strength	0.50
Urban land----------	40	Not rated		Not rated		Not rated	
PoA:							
Pelham--------------	50	Slight		Poorly suited		Moderate	
				Wetness	1.00	Low strength	0.50
Ocilla--------------	40	Slight		Moderately suited		Moderate	
				Wetness	0.50	Low strength	0.50
Pt:							
Pits----------------	95	Not rated		Not rated		Not rated	
RbA:							
Rains---------------	55	Moderate		Poorly suited		Severe	
		Flooding	0.50	Wetness	1.00	Low strength	1.00
				Flooding	0.50		
				Low strength	0.50		
Bethera-------------	35	Moderate		Poorly suited		Moderate	
		Flooding	0.50	Wetness	1.00	Low strength	0.50
				Flooding	0.50		
ReA:							
Red Bay-------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
ReB:							
Red Bay-------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
SmD:							
Smithdale-----------	85	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
SpC2:							
Springhill----------	85	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
SpD2:							
Springhill----------	85	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
StE2:							
Sumter--------------	50	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		

Table 9a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
StE2:							
Hannon	35	Severe		Poorly suited		Severe	
		Landslides	1.00	Landslides	1.00	Low strength	1.00
		Slope	0.50	Slope	1.00		
				Low strength	0.50		
TaB:							
Troup	90	Slight		Well suited		Moderate	
						Low strength	0.50
TaC:							
Troup	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
TaD:							
Troup	85	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
TgD:							
Troup	50	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
Alaga	40	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
ToE:							
Troup	40	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Lucy	30	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Luverne	20	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
TrD:							
Troup	55	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
Luverne	35	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
TsE:							
Troup	35	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Luverne	30	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
		Landslides	0.50	Landslides	0.50		
Smithdale	25	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
UdC:							
Udorthents	90	Slight		Well suited		Slight	
UdE:							
Udorthents	90	Moderate		Poorly suited		Slight	
		Slope	0.50	Slope	1.00		

Table 9a.--Forestland Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Limitations affecting construction of haul roads and log landings		Suitability for log landings		Soil rutting hazard	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ur:							
Urban land----------	95	Not rated		Not rated		Not rated	
WmB:							
Williamsville-------	90	Slight		Well suited		Moderate	
						Low strength	0.50
WmC:							
Williamsville-------	85	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50

Table 9b.--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		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ArC:							
Arundel	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
ArE:							
Arundel	85	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
BbA:							
Bibb	50	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
						Low strength	0.50
Iuka	40	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
BcB:							
Blanton	90	Slight		Slight		Well suited	
BcC:							
Blanton	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
BfB:							
Bonifay	90	Slight		Slight		Well suited	
BfC:							
Bonifay	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
BoB:							
Bonneau	90	Slight		Slight		Well suited	
BrC:							
Brantley	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
BrE:							
Brantley	85	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
BrF:							
Brantley	85	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
CaA:							
Casemore	90	Slight		Slight		Moderately suited	
						Low strength	0.50
						Wetness	0.50
CmB:							
Compass	90	Slight		Slight		Well suited	

Table 9b.--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
CoC:							
Cowarts-------------	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
CtE:							
Cowarts-------------	50	Slight		Severe		Poorly suited	
				Slope/erodibility	0.95	Slope	1.00
Troup---------------	40	Slight		Moderate		Poorly suited	
				Slope/erodibility	0.50	Slope	1.00
DoA:							
Dothan--------------	90	Slight		Slight		Well suited	
DoB:							
Dothan--------------	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
DoC:							
Dothan--------------	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
EuA:							
Eunola--------------	90	Slight		Slight		Well suited	
FaB:							
Faceville-----------	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
FlA:							
Fluvaquents---------	90	Slight		Slight		Poorly suited	
						Ponding	1.00
						Flooding	1.00
						Wetness	1.00
FqB:							
Fuquay--------------	90	Slight		Slight		Well suited	
FqC:							
Fuquay--------------	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
GrA:							
Greenville----------	90	Slight		Slight		Well suited	
GrB:							
Greenville----------	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
GsC2:							
Greenville----------	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
GtD3:							
Greenville----------	85	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
HaC2:							
Halso---------------	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50

Table 9b.--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
HaE2:							
Halso	85	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
HsC2:							
Hannon	50	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
						Stickiness; high plasticity index	0.50
Sumter	40	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
ImA:							
Iuka	45	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
Marietta	40	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Wetness	0.50
LaA:							
Leeper	50	Slight		Slight		Moderately suited	
						Flooding	0.50
						Low strength	0.50
						Wetness	0.50
Marietta	35	Slight		Slight		Moderately suited	
						Flooding	0.50
						Low strength	0.50
						Wetness	0.50
LcB:							
Lucy	90	Slight		Slight		Well suited	
LcC:							
Lucy	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
LvB:							
Luverne	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
LvC:							
Luverne	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
LvD:							
Luverne	85	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
LvE:							
Luverne	85	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.50

Table 9b.--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
MbB:							
Malbis	90	Slight		Slight		Well suited	
MbC:							
Malbis	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
MKA:							
Mantachie	40	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	0.50
						Low strength	0.50
Kinston	25	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
						Low strength	0.50
Iuka	20	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
NsE:							
Nankin	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Springhill	26	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Lucy	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
OrA:							
Orangeburg	90	Slight		Slight		Well suited	
OrB:							
Orangeburg	90	Slight		Slight		Well suited	
OrC:							
Orangeburg	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
OuC:							
Orangeburg	50	Slight		Slight		Well suited	
Urban land	40	Not rated		Not rated		Not rated	
PoA:							
Pelham	50	Slight		Slight		Poorly suited	
						Wetness	1.00
Ocilla	40	Slight		Slight		Moderately suited	
						Wetness	0.50
Pt:							
Pits	95	Not rated		Not rated		Not rated	

Table 9b.--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
RbA:							
Rains	55	Slight		Slight		Poorly suited	
						Wetness	1.00
						Flooding	0.50
						Low strength	0.50
Bethera	35	Slight		Slight		Poorly suited	
						Wetness	1.00
						Flooding	0.50
ReA:							
Red Bay	90	Slight		Slight		Well suited	
ReB:							
Red Bay	90	Slight		Slight		Well suited	
SmD:							
Smithdale	85	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
SpC2:							
Springhill	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
SpD2:							
Springhill	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
StE2:							
Sumter	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Hannon	35	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Landslides	1.00
						Slope	1.00
						Low strength	0.50
TaB:							
Troup	90	Slight		Slight		Well suited	
TaC:							
Troup	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
TaD:							
Troup	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
TgD:							
Troup	50	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Alaga	40	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
ToE:							
Troup	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00

Table 9b.--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
ToE:							
Lucy----------------	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Luverne-------------	20	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
TrD:							
Troup---------------	55	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Luverne-------------	35	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
TsE:							
Troup---------------	35	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Luverne-------------	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Landslides	0.50
Smithdale-----------	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
UdC:							
Udorthents----------	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
				Slope/erodibility	0.50		
UdE:							
Udorthents----------	90	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
		Slope/erodibility	0.50	Slope/erodibility	0.95		
Ur:							
Urban land----------	95	Not rated		Not rated		Not rated	
WmB:							
Williamsville-------	90	Slight		Slight		Well suited	
WmC:							
Williamsville-------	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50

Table 9c.--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
ArC:							
Arundel	85	Poorly suited		Poorly suited		Well suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75		
				Slope	0.50		
ArE:							
Arundel	85	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Slope	0.75	Slope	0.50
				Stickiness; high plasticity index	0.75		
BbA:							
Bibb	50	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Iuka	40	Well suited		Well suited		Moderately suited	
						Low strength	0.50
BcB:							
Blanton	90	Well suited		Well suited		Well suited	
BcC:							
Blanton	85	Well suited		Moderately suited		Well suited	
				Slope	0.50		
BfB:							
Bonifay	90	Well suited		Well suited		Well suited	
BfC:							
Bonifay	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
BoB:							
Bonneau	90	Well suited		Well suited		Well suited	
BrC:							
Brantley	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
BrE:							
Brantley	85	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
BrF:							
Brantley	85	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
CaA:							
Casemore	90	Well suited		Well suited		Moderately suited	
						Low strength	0.50
CmB:							
Compass	90	Well suited		Well suited		Well suited	

Table 9c.--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
CoC:							
Cowarts-------------	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
CtE:							
Cowarts-------------	50	Well suited		Moderately suited		Well suited	
				Slope	0.50		
Troup---------------	40	Well suited		Moderately suited		Well suited	
				Slope	0.50		
DoA:							
Dothan--------------	90	Well suited		Well suited		Well suited	
DoB:							
Dothan--------------	90	Well suited		Well suited		Well suited	
DoC:							
Dothan--------------	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
EuA:							
Eunola--------------	90	Well suited		Well suited		Well suited	
FaB:							
Faceville-----------	90	Well suited		Well suited		Well suited	
FlA:							
Fluvaquents---------	90	Well suited		Well suited		Well suited	
FqB:							
Fuquay--------------	90	Well suited		Well suited		Well suited	
FqC:							
Fuquay--------------	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
GrA:							
Greenville----------	90	Well suited		Well suited		Well suited	
GrB:							
Greenville----------	90	Well suited		Well suited		Well suited	
GsC2:							
Greenville----------	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
GtD3:							
Greenville----------	85	Well suited		Moderately suited		Moderately suited	
				Slope	0.50	Low strength	0.50
HaC2:							
Halso---------------	90	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50		
				Slope	0.50		

Table 9c.--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
HaE2:							
Halso	85	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Slope	0.50		
				Stickiness; high plasticity index	0.50		
HsC2:							
Hannon	50	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
Sumter	40	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
				Slope	0.50		
ImA:							
Iuka	45	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Marietta	40	Well suited		Well suited		Moderately suited	
						Low strength	0.50
LaA:							
Leeper	50	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
Marietta	35	Well suited		Well suited		Moderately suited	
						Low strength	0.50
LcB:							
Lucy	90	Well suited		Well suited		Well suited	
LcC:							
Lucy	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
LvB:							
Luverne	90	Well suited		Well suited		Well suited	
LvC:							
Luverne	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
LvD:							
Luverne	85	Well suited		Moderately suited		Well suited	
				Slope	0.50		
LvE:							
Luverne	85	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
MbB:							
Malbis	90	Well suited		Well suited		Well suited	
MbC:							
Malbis	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		

Table 9c.--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
MKA:							
Mantachie	40	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Kinston	25	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Iuka	20	Well suited		Well suited		Moderately suited	
						Low strength	0.50
NsE:							
Nankin	40	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
Springhill	26	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
Lucy	25	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
OrA:							
Orangeburg	90	Well suited		Well suited		Well suited	
OrB:							
Orangeburg	90	Well suited		Well suited		Well suited	
OrC:							
Orangeburg	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
OuC:							
Orangeburg	50	Well suited		Well suited		Well suited	
Urban land	40	Not rated		Not rated		Not rated	
PoA:							
Pelham	50	Well suited		Well suited		Well suited	
Ocilla	40	Well suited		Well suited		Well suited	
Pt:							
Pits	95	Not rated		Not rated		Not rated	
RbA:							
Rains	55	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Bethera	35	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50		
ReA:							
Red Bay	90	Well suited		Well suited		Well suited	
ReB:							
Red Bay	90	Well suited		Well suited		Well suited	
SmD:							
Smithdale	85	Well suited		Moderately suited		Well suited	
				Slope	0.50		

Table 9c.--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
SpC2:							
Springhill----------	85	Well suited		Moderately suited		Well suited	
				Slope	0.50		
SpD2:							
Springhill----------	85	Well suited		Moderately suited		Well suited	
				Slope	0.50		
StE2:							
Sumter--------------	50	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
Hannon--------------	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
						Stickiness; high plasticity index	0.50
TaB:							
Troup---------------	90	Well suited		Well suited		Well suited	
TaC:							
Troup---------------	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
TaD:							
Troup---------------	85	Well suited		Moderately suited		Well suited	
				Slope	0.50		
TgD:							
Troup---------------	50	Well suited		Moderately suited		Well suited	
				Slope	0.50		
Alaga---------------	40	Well suited		Moderately suited		Well suited	
				Slope	0.50		
ToE:							
Troup---------------	40	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
Lucy----------------	30	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
Luverne-------------	20	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
TrD:							
Troup---------------	55	Well suited		Moderately suited		Well suited	
				Slope	0.50		
Luverne-------------	35	Well suited		Moderately suited		Well suited	
				Slope	0.50		
TsE:							
Troup---------------	35	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50

Table 9c.--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
TsE:							
Luverne	30	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
Smithdale	25	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
UdC:							
Udorthents	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
UdE:							
Udorthents	90	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
Ur:							
Urban land	95	Not rated		Not rated		Not rated	
WmB:							
Williamsville	90	Well suited		Well suited		Well suited	
WmC:							
Williamsville	85	Well suited		Moderately suited		Well suited	
				Slope	0.50		

Table 9d.--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
ArC:					
Arundel	85	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
ArE:					
Arundel	85	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
BbA:					
Bibb	50	Well suited		Well suited	
Iuka	40	Well suited		Well suited	
BcB:					
Blanton	90	Well suited		Well suited	
BcC:					
Blanton	85	Well suited		Well suited	
BfB:					
Bonifay	90	Well suited		Well suited	
BfC:					
Bonifay	90	Well suited		Well suited	
BoB:					
Bonneau	90	Well suited		Well suited	
BrC:					
Brantley	90	Well suited		Well suited	
BrE:					
Brantley	85	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
BrF:					
Brantley	85	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
CaA:					
Casemore	90	Well suited		Well suited	
CmB:					
Compass	90	Well suited		Well suited	
CoC:					
Cowarts	90	Well suited		Well suited	

Table 9d.--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
CtE:					
Cowarts	50	Well suited		Well suited	
Troup	40	Well suited		Well suited	
DoA:					
Dothan	90	Well suited		Well suited	
DoB:					
Dothan	90	Well suited		Well suited	
DoC:					
Dothan	90	Well suited		Well suited	
EuA:					
Eunola	90	Well suited		Well suited	
FaB:					
Faceville	90	Well suited		Well suited	
FlA:					
Fluvaquents	90	Unsuited		Unsuited	
		Wetness	0.75	Wetness	1.00
FqB:					
Fuquay	90	Well suited		Well suited	
FqC:					
Fuquay	90	Well suited		Well suited	
GrA:					
Greenville	90	Well suited		Well suited	
GrB:					
Greenville	90	Well suited		Well suited	
GsC2:					
Greenville	90	Well suited		Well suited	
GtD3:					
Greenville	85	Well suited		Well suited	
HaC2:					
Halso	90	Well suited		Well suited	
HaE2:					
Halso	85	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
HsC2:					
Hannon	50	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
Sumter	40	Well suited		Well suited	
ImA:					
Iuka	45	Well suited		Well suited	
Marietta	40	Well suited		Well suited	

Table 9d.--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
LaA:					
Leeper	50	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
Marietta	35	Well suited		Well suited	
LcB:					
Lucy	90	Well suited		Well suited	
LcC:					
Lucy	90	Well suited		Well suited	
LvB:					
Luverne	90	Well suited		Well suited	
LvC:					
Luverne	90	Well suited		Well suited	
LvD:					
Luverne	85	Well suited		Well suited	
LvE:					
Luverne	85	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
MbB:					
Malbis	90	Well suited		Well suited	
MbC:					
Malbis	90	Well suited		Well suited	
MKA:					
Mantachie	40	Well suited		Well suited	
Kinston	25	Well suited		Well suited	
Iuka	20	Well suited		Well suited	
NsE:					
Nankin	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Springhill	26	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Lucy	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
OrA:					
Orangeburg	90	Well suited		Well suited	
OrB:					
Orangeburg	90	Well suited		Well suited	
OrC:					
Orangeburg	90	Well suited		Well suited	

Table 9d.--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
OuC:					
Orangeburg----------	50	Well suited		Well suited	
Urban land----------	40	Not rated		Not rated	
PoA:					
Pelham--------------	50	Well suited		Well suited	
Ocilla--------------	40	Well suited		Well suited	
Pt:					
Pits----------------	95	Not rated		Not rated	
RbA:					
Rains---------------	55	Well suited		Well suited	
Bethera-------------	35	Well suited		Well suited	
ReA:					
Red Bay-------------	90	Well suited		Well suited	
ReB:					
Red Bay-------------	90	Well suited		Well suited	
SmD:					
Smithdale-----------	85	Well suited		Well suited	
SpC2:					
Springhill----------	85	Well suited		Well suited	
SpD2:					
Springhill----------	85	Well suited		Well suited	
StE2:					
Sumter--------------	50	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Hannon--------------	35	Poorly suited		Poorly suited	
		Stickiness; high plasticity index	0.50	Slope	0.50
		Slope	0.50		
TaB:					
Troup---------------	90	Well suited		Well suited	
TaC:					
Troup---------------	90	Well suited		Well suited	
TaD:					
Troup---------------	85	Well suited		Well suited	
TgD:					
Troup---------------	50	Well suited		Well suited	
Alaga---------------	40	Well suited		Well suited	
ToE:					
Troup---------------	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50

Table 9d.--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
ToE:					
Lucy	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Luverne	20	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
TrD:					
Troup	55	Well suited		Well suited	
Luverne	35	Well suited		Well suited	
TsE:					
Troup	35	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Luverne	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Smithdale	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
UdC:					
Udorthents	90	Well suited		Well suited	
UdE:					
Udorthents	90	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Ur:					
Urban land	95	Not rated		Not rated	
WmB:					
Williamsville	90	Well suited		Well suited	
WmC:					
Williamsville	85	Well suited		Well suited	

Table 10a.--Recreation (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
ArC:							
Arundel	85	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.96	Slow water movement	0.96	Slope	1.00
		Too sandy	0.01	Too sandy	0.01	Slow water movement	0.96
						Depth to bedrock	0.10
ArE:							
Arundel	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Too sandy	0.01	Too sandy	0.01	Depth to bedrock	0.10
BbA:							
Bibb	50	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
Iuka	40	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
BcB:							
Blanton	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Too sandy	0.85
						Slope	0.12
BcC:							
Blanton	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Slope	1.00
						Too sandy	0.85
BfB:							
Bonifay	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Too sandy	0.85
						Slope	0.12
BfC:							
Bonifay	90	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Slope	1.00
						Too sandy	0.85
BoB:							
Bonneau	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.79	Too sandy	0.79	Too sandy	0.79
BrC:							
Brantley	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Too sandy	0.32	Too sandy	0.32	Slope	0.88
						Too sandy	0.32

Table 10a.--Recreation (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
BrE:							
Brantley	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Too sandy	0.32	Too sandy	0.32	Too sandy	0.32
BrF:							
Brantley	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Too sandy	0.32	Too sandy	0.32	Too sandy	0.32
CaA:							
Casemore	90	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	Slow water movement	0.26	Slow water movement	0.26
		Slow water movement	0.26				
CmB:							
Compass	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.70	Too sandy	0.70	Too sandy	0.70
CoC:							
Cowarts	90	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.60	Slow water movement	0.60	Slope	1.00
						Slow water movement	0.60
CtE:							
Cowarts	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
Troup	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
		Too sandy	0.85	Too sandy	0.85	Too sandy	0.85
DoA:							
Dothan	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
DoB:							
Dothan	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
						Slope	0.12
DoC:							
Dothan	90	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.26	Slow water movement	0.26	Slope	1.00
						Slow water movement	0.26

Table 10a.--Recreation (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
EuA:							
Eunola	90	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.19	Depth to saturated zone	0.39
		Depth to saturated zone	0.39				
FaB:							
Faceville	90	Not limited		Not limited		Somewhat limited	
						Slope	0.50
FlA:							
Fluvaquents	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Ponding	1.00	Flooding	0.40	Ponding	1.00
FqB:							
Fuquay	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.30	Too sandy	0.30	Too sandy	0.30
						Slope	0.12
FqC:							
Fuquay	90	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.30	Too sandy	0.30	Slope	1.00
						Too sandy	0.30
GrA:							
Greenville	90	Not limited		Not limited		Not limited	
GrB:							
Greenville	90	Not limited		Not limited		Somewhat limited	
						Slope	0.12
GsC2:							
Greenville	90	Not limited		Not limited		Very limited	
						Slope	1.00
GtD3:							
Greenville	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
HaC2:							
Halso	90	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
						Slope	1.00
HaE2:							
Halso	85	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Slow water movement	1.00
HsC2:							
Hannon	50	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Too clayey	1.00	Too clayey	1.00	Slope	1.00
						Too clayey	1.00

Table 10a.--Recreation (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
HsC2:							
Sumter	40	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
						Slope	1.00
						Depth to bedrock	0.46
ImA:							
Iuka	45	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
Marietta	40	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Depth to saturated zone	0.75	Flooding	1.00
		Depth to saturated zone	0.98	Flooding	0.40	Depth to saturated zone	0.98
LaA:							
Leeper	50	Very limited		Very limited		Very limited	
		Flooding	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slow water movement	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98			Flooding	0.60
Marietta	35	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98			Flooding	0.60
LcB:							
Lucy	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.84	Too sandy	0.84	Too sandy	0.84
						Slope	0.12
LcC:							
Lucy	90	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.84	Too sandy	0.84	Slope	1.00
						Too sandy	0.84
LvB:							
Luverne	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
		Too sandy	0.01	Too sandy	0.01	Slope	0.12
						Too sandy	0.01
LvC:							
Luverne	90	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.26	Slow water movement	0.26	Slope	1.00
		Too sandy	0.01	Too sandy	0.01	Slow water movement	0.26
						Too sandy	0.01
LvD:							
Luverne	85	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.26	Slow water movement	0.26	Slope	1.00
		Slope	0.16	Slope	0.16	Slow water movement	0.26
		Too sandy	0.01	Too sandy	0.01	Too sandy	0.01

Table 10a.--Recreation (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
LvE:							
Luverne-------------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
		Too sandy	0.01	Too sandy	0.01	Too sandy	0.01
MbB:							
Malbis--------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
MbC:							
Malbis--------------	90	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.26	Slow water movement	0.26	Slope	1.00
						Slow water movement	0.26
MKA:							
Mantachie-----------	40	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
Kinston-------------	25	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
Iuka----------------	20	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.40	Flooding	1.00
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
NsE:							
Nankin--------------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
Springhill----------	26	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Lucy----------------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.84	Too sandy	0.84	Too sandy	0.84
OrA:							
Orangeburg----------	90	Not limited		Not limited		Not limited	
OrB:							
Orangeburg----------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.12
OrC:							
Orangeburg----------	90	Not limited		Not limited		Very limited	
						Slope	1.00
OuC:							
Orangeburg----------	50	Not limited		Not limited		Somewhat limited	
						Slope	0.50

Table 10a.--Recreation (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
OuC:							
Urban land	40	Not rated		Not rated		Not rated	
PoA:							
Pelham	50	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	Too sandy	0.85	Too sandy	0.85
		Too sandy	0.85				
Ocilla	40	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.94	Too sandy	0.94
		Too sandy	0.94	Depth to saturated zone	0.48	Depth to saturated zone	0.81
		Depth to saturated zone	0.81				
Pt:							
Pits	95	Not rated		Not rated		Not rated	
RbA:							
Rains	55	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	Slow water movement	0.22	Flooding	0.60
		Slow water movement	0.22			Slow water movement	0.22
Bethera	35	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	Slow water movement	0.60	Slow water movement	0.60
		Slow water movement	0.60			Flooding	0.60
ReA:							
Red Bay	90	Not limited		Not limited		Not limited	
ReB:							
Red Bay	90	Not limited		Not limited		Somewhat limited	
						Slope	0.12
SmD:							
Smithdale	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
SpC2:							
Springhill	85	Not limited		Not limited		Very limited	
						Slope	1.00
SpD2:							
Springhill	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
StE2:							
Sumter	50	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Slow water movement	1.00
						Depth to bedrock	0.46

Table 10a.--Recreation (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
StE2:							
Hannon	35	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Slow water movement	1.00
		Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
TaB:							
Troup	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Too sandy	0.85
						Slope	0.12
TaC:							
Troup	90	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Slope	1.00
						Too sandy	0.85
TaD:							
Troup	85	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Slope	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.85
TgD:							
Troup	50	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Slope	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.85
Alaga	40	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.88	Too sandy	0.88	Slope	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.88
ToE:							
Troup	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.85	Too sandy	0.85	Too sandy	0.85
Lucy	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.84	Too sandy	0.84	Too sandy	0.84
Luverne	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
		Too sandy	0.01	Too sandy	0.01	Too sandy	0.01
TrD:							
Troup	55	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Slope	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.85
Luverne	35	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.26	Slow water movement	0.26	Slope	1.00
		Slope	0.16	Slope	0.16	Slow water movement	0.26
		Too sandy	0.01	Too sandy	0.01	Too sandy	0.01
TsE:							
Troup	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.85	Too sandy	0.85	Too sandy	0.85

Table 10a.--Recreation (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
TsE:							
Luverne	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
		Too sandy	0.01	Too sandy	0.01	Too sandy	0.01
Smithdale	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
UdC:							
Udorthents	90	Not rated		Not rated		Not rated	
UdE:							
Udorthents	90	Not rated		Not rated		Not rated	
Ur:							
Urban land	95	Not rated		Not rated		Not rated	
WmB:							
Williamsville	90	Very limited		Very limited		Very limited	
		Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
						Slope	0.12
WmC:							
Williamsville	85	Very limited		Very limited		Very limited	
		Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
		Slow water movement	0.26	Slow water movement	0.26	Slope	1.00
						Slow water movement	0.26

Table 10b.--Recreation (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		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ArC:							
Arundel	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Depth to bedrock	0.10
						Large stones content	0.03
ArE:							
Arundel	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.01	Slope	1.00
		Too sandy	0.01			Depth to bedrock	0.10
						Large stones content	0.03
BbA:							
Bibb	50	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
Iuka	40	Somewhat limited		Somewhat limited		Very limited	
		Flooding	0.40	Flooding	0.40	Flooding	1.00
						Depth to saturated zone	0.19
BcB:							
Blanton	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	0.34
BcC:							
Blanton	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	0.34
BfB:							
Bonifay	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	0.34
BfC:							
Bonifay	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	0.34
BoB:							
Bonneau	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.79	Too sandy	0.79	Droughty	0.03
BrC:							
Brantley	90	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.32	Too sandy	0.32		
BrE:							
Brantley	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.32	Slope	1.00
		Too sandy	0.32				

Table 10b.--Recreation (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
BrF:							
Brantley------------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.32	Too sandy	0.32		
CaA:							
Casemore-----------	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
CmB:							
Compass-------------	90	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.70	Too sandy	0.70		
CoC:							
Cowarts-------------	90	Not limited		Not limited		Not limited	
CtE:							
Cowarts-------------	50	Not limited		Not limited		Somewhat limited	
						Slope	0.96
Troup---------------	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Slope	0.96
						Droughty	0.34
DoA:							
Dothan--------------	90	Not limited		Not limited		Not limited	
DoB:							
Dothan--------------	90	Not limited		Not limited		Not limited	
DoC:							
Dothan--------------	90	Not limited		Not limited		Not limited	
EuA:							
Eunola--------------	90	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.19
FaB:							
Faceville-----------	90	Not limited		Not limited		Not limited	
FlA:							
Fluvaquents---------	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
						Flooding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40		
FqB:							
Fuquay--------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.30	Too sandy	0.30	Droughty	0.15
FqC:							
Fuquay--------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.30	Too sandy	0.30	Droughty	0.15
GrA:							
Greenville----------	90	Not limited		Not limited		Not limited	

Table 10b.--Recreation (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
GrB:							
Greenville----------	90	Not limited		Not limited		Not limited	
GsC2:							
Greenville----------	90	Not limited		Not limited		Not limited	
GtD3:							
Greenville----------	85	Not limited		Not limited		Somewhat limited	
						Slope	0.16
HaC2:							
Halso---------------	90	Not limited		Not limited		Not limited	
HaE2:							
Halso---------------	85	Not limited		Not limited		Very limited	
						Slope	1.00
HsC2:							
Hannon--------------	50	Very limited		Very limited		Very limited	
		Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
Sumter--------------	40	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.46
ImA:							
Iuka----------------	45	Somewhat limited		Somewhat limited		Very limited	
		Flooding	0.40	Flooding	0.40	Flooding	1.00
						Depth to saturated zone	0.19
Marietta------------	40	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.75
LaA:							
Leeper--------------	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Flooding	0.60
Marietta------------	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
						Flooding	0.60
LcB:							
Lucy----------------	90	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.84	Too sandy	0.84		
LcC:							
Lucy----------------	90	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.84	Too sandy	0.84		
LvB:							
Luverne-------------	90	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.01	Too sandy	0.01		

Table 10b.--Recreation (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
LvC:							
Luverne	90	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.01	Too sandy	0.01		
LvD:							
Luverne	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Slope	0.16
LvE:							
Luverne	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Too sandy	0.01	Slope	1.00
		Too sandy	0.01				
MbB:							
Malbis	90	Not limited		Not limited		Not limited	
MbC:							
Malbis	90	Not limited		Not limited		Not limited	
MKA:							
Mantachie	40	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
Kinston	25	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
Iuka	20	Somewhat limited		Somewhat limited		Very limited	
		Flooding	0.40	Flooding	0.40	Flooding	1.00
						Depth to saturated zone	0.19
NsE:							
Nankin	40	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
Springhill	26	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
Lucy	25	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.84	Too sandy	0.84	Slope	1.00
		Slope	0.50				
OrA:							
Orangeburg	90	Not limited		Not limited		Not limited	
OrB:							
Orangeburg	90	Not limited		Not limited		Not limited	
OrC:							
Orangeburg	90	Not limited		Not limited		Not limited	
OuC:							
Orangeburg	50	Not limited		Not limited		Not limited	
Urban land	40	Not rated		Not rated		Not rated	

Table 10b.--Recreation (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
PoA:							
Pelham	50	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 sandy	0.85	Too sandy	0.85		
Ocilla	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.94	Too sandy	0.94	Depth to saturated zone	0.48
		Depth to saturated zone	0.11	Depth to saturated zone	0.11	Droughty	0.18
Pt:							
Pits	95	Not rated		Not rated		Not rated	
RbA:							
Rains	55	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	0.60
Bethera	35	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	0.60
ReA:							
Red Bay	90	Not limited		Not limited		Not limited	
ReB:							
Red Bay	90	Not limited		Not limited		Not limited	
SmD:							
Smithdale	85	Not limited		Not limited		Somewhat limited	
						Slope	0.16
SpC2:							
Springhill	85	Not limited		Not limited		Not limited	
SpD2:							
Springhill	85	Not limited		Not limited		Somewhat limited	
						Slope	0.63
StE2:							
Sumter	50	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Carbonate content	1.00
						Slope	1.00
						Depth to bedrock	0.46
Hannon	35	Very limited		Very limited		Very limited	
		Too clayey	1.00	Too clayey	1.00	Slope	1.00
		Slope	0.50			Too clayey	1.00
TaB:							
Troup	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	0.34
TaC:							
Troup	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	0.34

Table 10b.--Recreation (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TaD:							
Troup---------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	0.34
						Slope	0.16
TgD:							
Troup---------------	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	0.34
						Slope	0.16
Alaga---------------	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.88	Too sandy	0.88	Droughty	0.69
						Slope	0.16
ToE:							
Troup---------------	40	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Slope	1.00
		Slope	0.50			Droughty	0.34
Lucy----------------	30	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.84	Too sandy	0.84	Slope	1.00
		Slope	0.50				
Luverne-------------	20	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.01	Slope	1.00
		Too sandy	0.01				
TrD:							
Troup---------------	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.85	Too sandy	0.85	Droughty	0.34
						Slope	0.16
Luverne-------------	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Slope	0.16
TsE:							
Troup---------------	35	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.85	Too sandy	0.85	Slope	1.00
		Slope	0.50			Droughty	0.34
Luverne-------------	30	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Too sandy	0.01	Slope	1.00
		Too sandy	0.01				
Smithdale-----------	25	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
UdC:							
Udorthents----------	90	Not rated		Not rated		Not rated	
UdE:							
Udorthents----------	90	Not rated		Not rated		Not rated	
Ur:							
Urban land----------	95	Not rated		Not rated		Not rated	
WmB:							
Williamsville-------	90	Very limited		Very limited		Not limited	
		Too sandy	1.00	Too sandy	1.00		

Table 10b.--Recreation (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WmC:							
Williamsville-------	85	Very limited		Very limited		Not limited	
		Too sandy	1.00	Too sandy	1.00		

Table 11.--Wildlife Habitat

[See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable]

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Forestland wildlife	Wetland wildlife
ArC:										
Arundel	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
ArE:										
Arundel	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
BbA:										
Bibb	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
Iuka	Poor	Fair	Fair	Good	Good	Poor	Poor	Fair	Good	Poor
BcB:										
Blanton	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
BcC:										
Blanton	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
BfB:										
Bonifay	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
BfC:										
Bonifay	Poor	Fair	Fair	Poor	Fair	Very poor	Very poor	Poor	Fair	Very poor
BoB:										
Bonneau	Fair	Fair	Good	Good	Good	Poor	Poor	Good	Good	Very poor
BrC:										
Brantley	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor
BrE:										
Brantley	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor
BrF:										
Brantley	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor
CaA:										
Casemore	Good	Good	Good	Good	Good	Fair	Poor	Good	Good	Poor
CmB:										
Compass	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Very poor
CoC:										
Cowarts	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Forestland wildlife	Wetland wildlife
CtE:										
Cowarts	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Troup	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
DoA:										
Dothan	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
DoB:										
Dothan	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
DoC:										
Dothan	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
EuA:										
Eunola	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
FaB:										
Faceville	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
FlA:										
Fluvaquents	Very poor	Poor	Poor	Poor	Very poor	Good	Good	Poor	Poor	Good
FqB:										
Fuquay	Fair	Fair	Good	Fair	Fair	Poor	Very poor	Good	Fair	Very poor
FqC:										
Fuquay	Fair	Fair	Good	Fair	Fair	Poor	Very poor	Good	Fair	Very poor
GrA:										
Greenville	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
GrB:										
Greenville	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
GsC2:										
Greenville	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
GtD3:										
Greenville	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
HaC2:										
Halso	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Forest- land wildlife	Wetland wildlife
HaE2:										
Halso	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
HsC2:										
Hannon	Fair	Fair	Fair	Fair	Fair	Poor	Poor	Fair	Good	Poor
Sumter	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
ImA:										
Iuka	Poor	Fair	Fair	Good	Good	Poor	Poor	Fair	Good	Poor
Marietta	Poor	Fair	Fair	Good	Good	Poor	Poor	Fair	Good	Poor
LaA:										
Leeper	Poor	Fair	Fair	Good	Very poor	Fair	Good	Fair	Good	Fair
Marietta	Poor	Fair	Fair	Good	Fair	Poor	Poor	Fair	Good	Poor
LcB:										
Lucy	Poor	Fair	Good	Fair	Good	Poor	Very poor	Fair	Good	Very poor
LcC:										
Lucy	Poor	Fair	Fair	Fair	Good	Poor	Very poor	Fair	Good	Very poor
LvB:										
Luverne	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
LvC:										
Luverne	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
LvD:										
Luverne	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
LvE:										
Luverne	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
MbB:										
Malbis	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
MbC:										
Malbis	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
MKA:										
Mantachie	Poor	Fair	Fair	Good	Good	Fair	Fair	Fair	Good	Fair
Kinston	Poor	Poor	Fair	Fair	Fair	Good	Good	Poor	Poor	Good
Iuka	Poor	Fair	Fair	Good	Good	Poor	Poor	Fair	Good	Poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba-ceous plants	Hardwood trees	Conif-erous plants	Wetland plants	Shallow water areas	Openland wildlife	Forest-land wildlife	Wetland wildlife
NsE:										
Nankin	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Springhill	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Lucy	Poor	Fair	Fair	Fair	Good	Poor	Very poor	Fair	Good	Very poor
OrA:										
Orangeburg	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
OrB:										
Orangeburg	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
OrC:										
Orangeburg	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
OuC:										
Orangeburg	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Urban land.										
PoA:										
Pelham	Poor	Poor	Fair	Fair	Fair	Fair	Fair	Poor	Fair	Fair
Ocilla	Fair	Fair	Good	Fair	Good	Fair	Fair	Fair	Good	Fair
Pt:										
Pits	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
RbA:										
Rains	Fair	Fair	Poor	Fair	Fair	Good	Fair	Fair	Fair	Fair
Bethera	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
ReA:										
Red Bay	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
ReB:										
Red Bay	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
SmD:										
Smithdale	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
SpC2:										
Springhill	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Forest- land wildlife	Wetland wildlife
SpD2:										
Springhill	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
StE2:										
Sumter	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Hannon	Fair	Fair	Fair	Fair	Fair	Poor	Poor	Fair	Good	Poor
TaB:										
Troup	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
TaC:										
Troup	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
TaD:										
Troup	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
TgD:										
Troup	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
Alaga	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
ToE:										
Troup	Very poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Lucy	Poor	Fair	Fair	Fair	Good	Poor	Very poor	Fair	Good	Very poor
Luverne	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
TrD:										
Troup	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
Luverne	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
TsE:										
Troup	Very poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Luverne	Poor	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Smithdale	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
UdC:										
Udorthents	Fair	Fair	Fair	Fair	Fair	Poor	Poor	Fair	Fair	Poor

Table 11.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Forestland wildlife	Wetland wildlife
UdE:										
Udorthents----	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Good	Very poor
Ur:										
Urban land.										
WmB:										
Williamsville-	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
WmC:										
Williamsville-	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor

Table 12a.--Building Sites (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		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ArC:							
Arundel-------------	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
				Depth to soft bedrock	0.10	Slope	0.50
ArE:							
Arundel-------------	85	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	0.10		
BbA:							
Bibb----------------	50	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
Iuka----------------	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
BcB:							
Blanton-------------	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.61		
BcC:							
Blanton-------------	85	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.61	Slope	0.88
BfB:							
Bonifay-------------	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.61		
BfC:							
Bonifay-------------	90	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.61	Slope	0.88
BoB:							
Bonneau-------------	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.82		
BrC:							
Brantley------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
						Slope	0.12

Table 12a.--Building Sites (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
BrE:							
Brantley	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
BrF:							
Brantley	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
CaA:							
Casemore	90	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
CmB:							
Compass	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.95		
CoC:							
Cowarts	90	Not limited		Not limited		Somewhat limited	
						Slope	0.50
CtE:							
Cowarts	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
Troup	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.96	Slope	0.96	Slope	1.00
DoA:							
Dothan	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.95		
DoB:							
Dothan	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.95		
DoC:							
Dothan	90	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.95	Slope	0.50
EuA:							
Eunola	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
FaB:							
Faceville	90	Not limited		Not limited		Not limited	

Table 12a.--Building Sites (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
FlA:							
Fluvaquents	90	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		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
FqB:							
Fuquay	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.61		
FqC:							
Fuquay	90	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.61	Slope	0.88
GrA:							
Greenville	90	Not limited		Not limited		Not limited	
GrB:							
Greenville	90	Not limited		Not limited		Not limited	
GsC2:							
Greenville	90	Not limited		Not limited		Somewhat limited	
						Slope	0.50
GtD3:							
Greenville	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
HaC2:							
Halso	90	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
						Slope	0.50
HaE2:							
Halso	85	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
HsC2:							
Hannon	50	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
						Slope	0.50
Sumter	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.50
				Depth to soft bedrock	0.46	Shrink-swell	0.50
ImA:							
Iuka	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39

Table 12a.--Building Sites (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
ImA:							
Marietta------------	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
LaA:							
Leeper--------------	50	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Shrink-swell	1.00	Depth to saturated zone	1.00	Shrink-swell	1.00
		Depth to saturated zone	0.98	Shrink-swell	1.00	Depth to saturated zone	0.98
Marietta------------	35	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
LcB:							
Lucy----------------	90	Not limited		Not limited		Not limited	
LcC:							
Lucy----------------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.88
LvB:							
Luverne-------------	90	Somewhat limited		Not limited		Somewhat limited	
		Shrink-swell	0.50			Shrink-swell	0.50
LvC:							
Luverne-------------	90	Somewhat limited		Not limited		Somewhat limited	
		Shrink-swell	0.50			Slope	0.50
						Shrink-swell	0.50
LvD:							
Luverne-------------	85	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Slope	0.16	Slope	1.00
		Slope	0.16			Shrink-swell	0.50
LvE:							
Luverne-------------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
MbB:							
Malbis--------------	90	Not limited		Very limited		Not limited	
				Depth to saturated zone	0.99		
MbC:							
Malbis--------------	90	Not limited		Very limited		Somewhat limited	
				Depth to saturated zone	0.99	Slope	0.50
MKA:							
Mantachie-----------	40	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 12a.--Building Sites (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MKA:							
Kinston-------------	25	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
Iuka----------------	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
NsE:							
Nankin--------------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Springhill----------	26	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Lucy----------------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
OrA:							
Orangeburg----------	90	Not limited		Not limited		Not limited	
OrB:							
Orangeburg----------	90	Not limited		Not limited		Not limited	
OrC:							
Orangeburg----------	90	Not limited		Not limited		Somewhat limited	
						Slope	0.50
OuC:							
Orangeburg----------	50	Not limited		Not limited		Not limited	
Urban land----------	40	Not rated		Not rated		Not rated	
PoA:							
Pelham--------------	50	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
Ocilla--------------	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.81	Depth to saturated zone	1.00	Depth to saturated zone	0.81
Pt:							
Pits----------------	95	Not rated		Not rated		Not rated	
RbA:							
Rains---------------	55	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
Bethera-------------	35	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
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 12a.--Building Sites (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
ReA:							
Red Bay	90	Not limited		Not limited		Not limited	
ReB:							
Red Bay	90	Not limited		Not limited		Not limited	
SmD:							
Smithdale	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
SpC2:							
Springhill	85	Not limited		Not limited		Somewhat limited	
						Slope	0.50
SpD2:							
Springhill	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
StE2:							
Sumter	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
				Depth to soft bedrock	0.46		
Hannon	35	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Shrink-swell	1.00	Shrink-swell	1.00
TaB:							
Troup	90	Not limited		Not limited		Not limited	
TaC:							
Troup	90	Not limited		Not limited		Somewhat limited	
						Slope	0.88
TaD:							
Troup	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
TgD:							
Troup	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Alaga	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
ToE:							
Troup	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Lucy	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Luverne	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50

Table 12a.--Building Sites (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TrD:							
Troup---------------	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Luverne-------------	35	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Slope	0.16	Slope	1.00
		Slope	0.16			Shrink-swell	0.50
TsE:							
Troup---------------	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Luverne-------------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
Smithdale-----------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
UdC:							
Udorthents----------	90	Not rated		Not rated		Not rated	
UdE:							
Udorthents----------	90	Not rated		Not rated		Not rated	
Ur:							
Urban land----------	95	Not rated		Not rated		Not rated	
WmB:							
Williamsville-------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
WmC:							
Williamsville-------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Slope	0.50
						Shrink-swell	0.50

Table 12b.--Building Sites (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		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ArC:							
Arundel-------------	85	Very limited		Somewhat limited		Somewhat limited	
		Shrink-swell	1.00	Too clayey	0.28	Depth to bedrock	0.10
				Cutbanks cave	0.10	Large stones content	0.03
				Depth to soft bedrock	0.10		
ArE:							
Arundel-------------	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Too clayey	0.28	Depth to bedrock	0.10
				Cutbanks cave	0.10	Large stones content	0.03
BbA:							
Bibb----------------	50	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Flooding	0.80	Depth to saturated zone	1.00
				Cutbanks cave	0.10		
Iuka----------------	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Depth to saturated zone	0.19	Flooding	0.80	Depth to saturated zone	0.19
				Cutbanks cave	0.10		
BcB:							
Blanton-------------	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.34
				Depth to saturated zone	0.61		
BcC:							
Blanton-------------	85	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.34
				Depth to saturated zone	0.61		
BfB:							
Bonifay-------------	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.34
				Depth to saturated zone	0.61		
BfC:							
Bonifay-------------	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.34
				Depth to saturated zone	0.61		

Table 12b.--Building Sites (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
BoB:							
Bonneau-------------	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.03
				Depth to saturated zone	0.82		
BrC:							
Brantley------------	90	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.12		
		Shrink-swell	0.50	Cutbanks cave	0.10		
BrE:							
Brantley------------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.12		
		Shrink-swell	0.50	Cutbanks cave	0.10		
BrF:							
Brantley------------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.12		
		Shrink-swell	0.50	Cutbanks cave	0.10		
CaA:							
Casemore------------	90	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	0.78	Cutbanks cave	0.10		
		Flooding	0.40				
CmB:							
Compass-------------	90	Not limited		Very limited		Not limited	
				Depth to saturated zone	0.99		
				Cutbanks cave	0.10		
CoC:							
Cowarts-------------	90	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
CtE:							
Cowarts-------------	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.96	Slope	0.96	Slope	0.96
				Cutbanks cave	0.10		
Troup---------------	40	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.96	Cutbanks cave	1.00	Slope	0.96
				Slope	0.96	Droughty	0.34
DoA:							
Dothan--------------	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.95		
				Cutbanks cave	0.10		
DoB:							
Dothan--------------	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.95		
				Cutbanks cave	0.10		

Table 12b.--Building Sites (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
DoC:							
Dothan--------------	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.95		
				Cutbanks cave	0.10		
EuA:							
Eunola--------------	90	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	Cutbanks cave	0.10		
FaB:							
Faceville-----------	90	Not limited		Somewhat limited		Not limited	
				Too clayey	0.12		
				Cutbanks cave	0.10		
FlA:							
Fluvaquents---------	90	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	Flooding	1.00
		Flooding	1.00	Flooding	0.80	Depth to saturated zone	1.00
FqB:							
Fuquay--------------	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.15
				Depth to saturated zone	0.61		
FqC:							
Fuquay--------------	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.15
				Depth to saturated zone	0.61		
GrA:							
Greenville----------	90	Somewhat limited		Somewhat limited		Not limited	
		Low strength	0.08	Cutbanks cave	0.10		
GrB:							
Greenville----------	90	Somewhat limited		Somewhat limited		Not limited	
		Low strength	0.08	Cutbanks cave	0.10		
GsC2:							
Greenville----------	90	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
GtD3:							
Greenville----------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.16	Slope	0.16	Slope	0.16
		Low strength	0.08	Cutbanks cave	0.10		
HaC2:							
Halso---------------	90	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.88		
		Shrink-swell	1.00	Cutbanks cave	0.10		

Table 12b.--Building Sites (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
HaE2:							
Halso	85	Very limited		Very limited		Very limited	
		Low strength	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	1.00	Too clayey	0.88		
		Slope	1.00	Cutbanks cave	0.10		
HsC2:							
Hannon	50	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Cutbanks cave	1.00	Too clayey	1.00
		Low strength	1.00	Too clayey	0.98		
Sumter	40	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Depth to soft bedrock	0.46	Depth to bedrock	0.46
		Shrink-swell	0.50				
				Cutbanks cave	0.10		
ImA:							
Iuka	45	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Depth to saturated zone	0.19			Depth to saturated zone	0.19
				Flooding	0.80		
				Cutbanks cave	0.10		
Marietta	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Low strength	0.78			Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Flooding	0.80		
				Cutbanks cave	0.10		
LaA:							
Leeper	50	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Low strength	1.00				
		Shrink-swell	1.00	Flooding	0.60	Flooding	0.60
				Too clayey	0.50		
Marietta	35	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Low strength	0.78				
		Depth to saturated zone	0.75	Flooding	0.60	Flooding	0.60
				Cutbanks cave	0.10		
LcB:							
Lucy	90	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
LcC:							
Lucy	90	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
LvB:							
Luverne	90	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
LvC:							
Luverne	90	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				

Table 12b.--Building Sites (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
LvD:							
Luverne	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Slope	0.16				
LvE:							
Luverne	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
MbB:							
Malbis	90	Not limited		Very limited		Not limited	
				Depth to saturated zone	0.99		
				Cutbanks cave	0.10		
MbC:							
Malbis	90	Not limited		Very limited		Not limited	
				Depth to saturated zone	0.99		
				Cutbanks cave	0.10		
MKA:							
Mantachie	40	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Flooding	0.80	Depth to saturated zone	1.00
				Cutbanks cave	0.10		
Kinston	25	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Flooding	0.80	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
Iuka	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Depth to saturated zone	0.19	Flooding	0.80	Depth to saturated zone	0.19
				Cutbanks cave	0.10		
NsE:							
Nankin	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
				Too clayey	0.03		
Springhill	26	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
Lucy	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00		
OrA:							
Orangeburg	90	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		

Table 12b.--Building Sites (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
OrB:							
Orangeburg----------	90	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
OrC:							
Orangeburg----------	90	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
OuC:							
Orangeburg----------	50	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Urban land----------	40	Not rated		Not rated		Not rated	
PoA:							
Pelham--------------	50	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	0.40	Cutbanks cave	1.00		
Ocilla--------------	40	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.48	Depth to saturated zone	1.00	Depth to saturated zone	0.48
		Flooding	0.40	Cutbanks cave	1.00	Droughty	0.18
Pt:							
Pits----------------	95	Not rated		Not rated		Not rated	
RbA:							
Rains---------------	55	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	0.60	Flooding	0.60
				Cutbanks cave	0.10		
Bethera-------------	35	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	0.60	Flooding	0.60
		Low strength	1.00	Too clayey	0.12		
ReA:							
Red Bay-------------	90	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
ReB:							
Red Bay-------------	90	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
SmD:							
Smithdale-----------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.16	Slope	0.16	Slope	0.16
				Cutbanks cave	0.10		
SpC2:							
Springhill----------	85	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		

Table 12b.--Building Sites (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
SpD2:							
Springhill----------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
				Cutbanks cave	0.10		
StE2:							
Sumter--------------	50	Very limited		Very limited		Very limited	
		Low strength	1.00	Slope	1.00	Carbonate content	1.00
		Slope	1.00	Depth to soft bedrock	0.46	Slope	1.00
		Shrink-swell	0.50			Depth to bedrock	0.46
				Cutbanks cave	0.10		
Hannon--------------	35	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Cutbanks cave	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Too clayey	1.00
		Low strength	1.00	Too clayey	0.98		
TaB:							
Troup---------------	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.34
TaC:							
Troup---------------	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.34
TaD:							
Troup---------------	85	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Droughty	0.34
				Slope	0.16	Slope	0.16
TgD:							
Troup---------------	50	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Droughty	0.34
				Slope	0.16	Slope	0.16
Alaga---------------	40	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Droughty	0.69
				Slope	0.16	Slope	0.16
ToE:							
Troup---------------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.34
Lucy----------------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00		
Luverne-------------	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
TrD:							
Troup---------------	55	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Droughty	0.34
				Slope	0.16	Slope	0.16

Table 12b.--Building Sites (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
TrD:							
Luverne	35	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Slope	0.16				
TsE:							
Troup	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.34
Luverne	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Smithdale	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
UdC:							
Udorthents	90	Not rated		Not rated		Not rated	
UdE:							
Udorthents	90	Not rated		Not rated		Not rated	
Ur:							
Urban land	95	Not rated		Not rated		Not rated	
WmB:							
Williamsville	90	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
WmC:							
Williamsville	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				

Table 13a.--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		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
ArC:					
Arundel	85	Very limited		Very limited	
		Slow water movement	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	0.92
ArE:					
Arundel	85	Very limited		Very limited	
		Slow water movement	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00		
BbA:					
Bibb	50	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
Iuka	40	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	0.99
BcB:					
Blanton	90	Somewhat limited		Very limited	
		Depth to saturated zone	0.99	Seepage	1.00
				Slope	0.08
BcC:					
Blanton	85	Somewhat limited		Very limited	
		Depth to saturated zone	0.99	Seepage	1.00
				Slope	1.00
BfB:					
Bonifay	90	Somewhat limited		Very limited	
		Depth to saturated zone	0.99	Seepage	1.00
		Slow water movement	0.18	Slope	0.08
BfC:					
Bonifay	90	Somewhat limited		Very limited	
		Depth to saturated zone	0.99	Seepage	1.00
		Slow water movement	0.18	Slope	1.00

Table 13a.--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
BoB:					
Bonneau	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
BrC:					
Brantley	90	Very limited		Very limited	
		Slow water movement	1.00	Seepage	0.99
				Slope	0.68
BrE:					
Brantley	85	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	1.00	Seepage	0.99
BrF:					
Brantley	85	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	1.00	Seepage	0.99
CaA:					
Casemore	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Flooding	0.40
		Flooding	0.40		
CmB:					
Compass	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Slow water movement	0.50	Depth to saturated zone	0.19
CoC:					
Cowarts	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Slope	0.92
				Seepage	0.50
CtE:					
Cowarts	50	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	0.96	Seepage	0.50
Troup	40	Somewhat limited		Very limited	
		Slope	0.96	Slope	1.00
				Seepage	1.00
DoA:					
Dothan	90	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Seepage	0.50
		Slow water movement	1.00		

Table 13a.--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
DoB:					
Dothan	90	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Seepage	0.50
		Slow water movement	1.00	Slope	0.08
DoC:					
Dothan	90	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Slope	0.92
		Slow water movement	1.00	Seepage	0.50
EuA:					
Eunola	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	0.99
		Flooding	0.40	Flooding	0.40
FaB:					
Faceville	90	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Seepage	0.50
				Slope	0.08
FlA:					
Fluvaquents	90	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
FqB:					
Fuquay	90	Somewhat limited		Very limited	
		Depth to saturated zone	0.99	Seepage	1.00
		Slow water movement	0.50	Slope	0.08
FqC:					
Fuquay	90	Somewhat limited		Very limited	
		Depth to saturated zone	0.99	Seepage	1.00
		Slow water movement	0.50	Slope	1.00
GrA:					
Greenville	90	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Seepage	0.50
GrB:					
Greenville	90	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Seepage	0.50
				Slope	0.08

Table 13a.--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
GsC2:					
Greenville	90	Somewhat limited		Somewhat limited	
		Slow water movement	0.50	Slope	0.92
				Seepage	0.50
GtD3:					
Greenville	85	Somewhat limited		Very limited	
		Slow water movement	0.50	Slope	1.00
		Slope	0.16	Seepage	0.50
HaC2:					
Halso	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Depth to soft bedrock	0.93
		Depth to bedrock	0.98	Slope	0.92
HaE2:					
Halso	85	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	1.00	Depth to soft bedrock	0.93
		Depth to bedrock	0.98		
HsC2:					
Hannon	50	Very limited		Somewhat limited	
		Slow water movement	1.00	Slope	0.92
Sumter	40	Very limited		Very limited	
		Slow water movement	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	0.92
ImA:					
Iuka	45	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	1.00
Marietta	40	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	0.99
LaA:					
Leeper	50	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00		

Table 13a.--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
LaA:					
Marietta------------	35	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	0.99
LcB:					
Lucy----------------	90	Not limited		Very limited	
				Seepage	1.00
				Slope	0.08
LcC:					
Lucy----------------	90	Not limited		Very limited	
				Seepage	1.00
				Slope	1.00
LvB:					
Luverne-------------	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Seepage	0.50
				Slope	0.08
LvC:					
Luverne-------------	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Slope	0.92
				Seepage	0.50
LvD:					
Luverne-------------	85	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
				Seepage	0.50
		Slope	0.16		
LvE:					
Luverne-------------	85	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	1.00	Seepage	0.50
MbB:					
Malbis--------------	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	0.19
		Slow water movement	1.00		
MbC:					
Malbis--------------	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
				Slope	0.92
		Slow water movement	1.00	Depth to saturated zone	0.19
MKA:					
Mantachie-----------	40	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

Table 13a.--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
MKA:					
Kinston	25	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
Iuka	20	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	1.00
NsE:					
Nankin	40	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	1.00	Seepage	0.50
Springhill	26	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	0.99
Lucy	25	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
OrA:					
Orangeburg	90	Not limited		Very limited	
				Seepage	0.99
OrB:					
Orangeburg	90	Not limited		Very limited	
				Seepage	0.99
				Slope	0.08
OrC:					
Orangeburg	90	Not limited		Very limited	
				Seepage	0.99
				Slope	0.92
OuC:					
Orangeburg	50	Not limited		Very limited	
				Seepage	0.99
				Slope	0.32
Urban land	40	Not rated		Not rated	
PoA:					
Pelham	50	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Slow water movement	0.50	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40

Table 13a.--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
PoA:					
Ocilla	40	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	1.00
		Flooding	0.40	Flooding	0.40
Pt:					
Pits	95	Not rated		Not rated	
RbA:					
Rains	55	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	1.00	Seepage	0.50
Bethera	35	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	1.00		
ReA:					
Red Bay	90	Not limited		Very limited	
				Seepage	0.99
ReB:					
Red Bay	90	Not limited		Very limited	
				Seepage	0.99
				Slope	0.08
SmD:					
Smithdale	85	Somewhat limited		Very limited	
		Slope	0.16	Slope	1.00
				Seepage	0.99
SpC2:					
Springhill	85	Not limited		Very limited	
				Seepage	0.99
				Slope	0.92
SpD2:					
Springhill	85	Somewhat limited		Very limited	
		Slope	0.63	Slope	1.00
				Seepage	0.99
StE2:					
Sumter	50	Very limited		Very limited	
		Slow water movement	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	1.00
		Slope	1.00		
Hannon	35	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	1.00		

Table 13a.--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
TaB:					
Troup	90	Not limited		Very limited	
				Seepage	1.00
				Slope	0.08
TaC:					
Troup	90	Not limited		Very limited	
				Seepage	1.00
				Slope	1.00
TaD:					
Troup	85	Somewhat limited		Very limited	
		Slope	0.16	Slope	1.00
				Seepage	1.00
TgD:					
Troup	50	Somewhat limited		Very limited	
		Slope	0.16	Seepage	1.00
				Slope	1.00
Alaga	40	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Filtering capacity	1.00	Slope	1.00
		Slope	0.16		
ToE:					
Troup	40	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
Lucy	30	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
Luverne	20	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	1.00	Seepage	0.50
TrD:					
Troup	55	Somewhat limited		Very limited	
		Slope	0.16	Seepage	1.00
				Slope	1.00
Luverne	35	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	0.16	Seepage	0.50
TsE:					
Troup	35	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
Luverne	30	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	1.00	Seepage	0.50

Table 13a.--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
TsE:					
Smithdale-----------	25	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	0.99
UdC:					
Udorthents----------	90	Not rated		Not rated	
UdE:					
Udorthents----------	90	Not rated		Not rated	
Ur:					
Urban land----------	95	Not rated		Not rated	
WmB:					
Williamsville-------	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Seepage	0.50
				Slope	0.08
WmC:					
Williamsville-------	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Slope	0.92
				Seepage	0.50

Table 13b.--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: 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
ArC:							
Arundel	85	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Hard to compact	1.00
		Too clayey	0.50			Depth to bedrock	1.00
						Too clayey	0.50
ArE:							
Arundel	85	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
		Too clayey	1.00	Slope	1.00	Hard to compact	1.00
		Slope	1.00			Depth to bedrock	1.00
BbA:							
Bibb	50	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		
Iuka	40	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
BcB:							
Blanton	90	Somewhat limited		Very limited		Very limited	
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
						Too sandy	0.50
BcC:							
Blanton	85	Somewhat limited		Very limited		Very limited	
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
						Too sandy	0.50
BfB:							
Bonifay	90	Somewhat limited		Very limited		Very limited	
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
						Too sandy	0.50
BfC:							
Bonifay	90	Somewhat limited		Very limited		Very limited	
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
						Too sandy	0.50
BoB:							
Bonneau	90	Somewhat limited		Very limited		Not limited	
		Depth to saturated zone	0.09	Seepage	1.00		
BrC:							
Brantley	90	Somewhat limited		Not limited		Somewhat limited	
		Too clayey	0.50			Too clayey	0.50

Table 13b.--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
BrE:							
Brantley------------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	0.50			Too clayey	0.50
BrF:							
Brantley------------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	0.50			Too clayey	0.50
CaA:							
Casemore------------	90	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	0.40	Flooding	0.40		
CmB:							
Compass-------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.19	Depth to saturated zone	0.47
CoC:							
Cowarts-------------	90	Not limited		Not limited		Not limited	
CtE:							
Cowarts-------------	50	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.96	Slope	0.96	Slope	0.96
Troup---------------	40	Somewhat limited		Very limited		Very limited	
		Slope	0.96	Seepage	1.00	Seepage	1.00
		Too sandy	0.50	Slope	0.96	Slope	0.96
						Too sandy	0.50
DoA:							
Dothan--------------	90	Somewhat limited		Not limited		Somewhat limited	
		Depth to saturated zone	0.47			Depth to saturated zone	0.11
DoB:							
Dothan--------------	90	Somewhat limited		Not limited		Somewhat limited	
		Depth to saturated zone	0.47			Depth to saturated zone	0.11
DoC:							
Dothan--------------	90	Somewhat limited		Not limited		Somewhat limited	
		Depth to saturated zone	0.47			Depth to saturated zone	0.11
EuA:							
Eunola--------------	90	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
		Flooding	0.40	Flooding	0.40		
FaB:							
Faceville-----------	90	Somewhat limited		Not limited		Not limited	
		Too clayey	0.50				

Table 13b.--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
FlA:							
Fluvaquents	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00		
FqB:							
Fuquay	90	Not limited		Very limited		Not limited	
				Seepage	1.00		
FqC:							
Fuquay	90	Not limited		Very limited		Not limited	
				Seepage	1.00		
GrA:							
Greenville	90	Somewhat limited		Not limited		Not limited	
		Too clayey	0.50				
GrB:							
Greenville	90	Somewhat limited		Not limited		Not limited	
		Too clayey	0.50				
GsC2:							
Greenville	90	Somewhat limited		Not limited		Not limited	
		Too clayey	0.50				
GtD3:							
Greenville	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too clayey	0.50	Slope	0.16	Slope	0.16
		Slope	0.16				
HaC2:							
Halso	90	Very limited		Somewhat limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	0.94	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
						Depth to bedrock	0.94
HaE2:							
Halso	85	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00	Too clayey	1.00
		Too clayey	1.00	Depth to bedrock	0.94	Hard to compact	1.00
		Slope	1.00			Slope	1.00
HsC2:							
Hannon	50	Not limited		Not limited		Not limited	
Sumter	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50			Too clayey	0.50
ImA:							
Iuka	45	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	0.50
				Seepage	1.00		

Table 13b.--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
ImA:							
Marietta------------	40	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	Too clayey	0.50
LaA:							
Leeper--------------	50	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Too clayey	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Hard to compact	1.00
		Too clayey	1.00			Depth to saturated zone	0.99
Marietta------------	35	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	Too clayey	0.50
LcB:							
Lucy----------------	90	Not limited		Very limited		Not limited	
				Seepage	1.00		
LcC:							
Lucy----------------	90	Not limited		Very limited		Not limited	
				Seepage	1.00		
LvB:							
Luverne-------------	90	Not limited		Not limited		Somewhat limited	
						Too clayey	0.50
LvC:							
Luverne-------------	90	Not limited		Not limited		Somewhat limited	
						Too clayey	0.50
LvD:							
Luverne-------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.16	Slope	0.16	Too clayey	0.50
						Slope	0.16
LvE:							
Luverne-------------	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Too clayey	0.50
MbB:							
Malbis--------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.19	Depth to saturated zone	0.47
MbC:							
Malbis--------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.19	Depth to saturated zone	0.47
MKA:							
Mantachie-----------	40	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		

Table 13b.--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
MKA:							
Kinston	25	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 clayey	0.50				
Iuka	20	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	0.50
				Seepage	1.00		
NsE:							
Nankin	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	0.50				
Springhill	26	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Lucy	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Seepage	1.00		
OrA:							
Orangeburg	90	Not limited		Not limited		Not limited	
OrB:							
Orangeburg	90	Not limited		Not limited		Not limited	
OrC:							
Orangeburg	90	Not limited		Not limited		Not limited	
OuC:							
Orangeburg	50	Not limited		Not limited		Not limited	
Urban land	40	Not rated		Not limited		Not rated	
PoA:							
Pelham	50	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	0.40	Seepage	1.00		
				Flooding	0.40		
Ocilla	40	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.96
		Flooding	0.40	Seepage	1.00		
				Flooding	0.40		
Pt:							
Pits	95	Not rated		Not limited		Not rated	
RbA:							
Rains	55	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 clayey	0.50				

Table 13b.--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
RbA:							
Bethera	35	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 clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
ReA:							
Red Bay	90	Not limited		Not limited		Not limited	
ReB:							
Red Bay	90	Not limited		Not limited		Not limited	
SmD:							
Smithdale	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.16	Slope	0.16	Slope	0.16
SpC2:							
Springhill	85	Not limited		Not limited		Not limited	
SpD2:							
Springhill	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.63	Slope	0.63	Slope	0.63
StE2:							
Sumter	50	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	0.50			Carbonate content	1.00
Hannon	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
TaB:							
Troup	90	Somewhat limited		Very limited		Very limited	
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
						Too sandy	0.50
TaC:							
Troup	90	Somewhat limited		Very limited		Very limited	
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
						Too sandy	0.50
TaD:							
Troup	85	Somewhat limited		Very limited		Very limited	
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.50
						Slope	0.16
TgD:							
Troup	50	Somewhat limited		Very limited		Very limited	
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.50
						Slope	0.16
Alaga	40	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
		Too sandy	0.50	Slope	0.16	Too sandy	0.50
		Slope	0.16			Slope	0.16

Table 13b.--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
ToE:							
Troup---------------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
						Too sandy	0.50
Lucy----------------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Seepage	1.00		
Luverne-------------	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Too clayey	0.50
TrD:							
Troup---------------	55	Somewhat limited		Very limited		Very limited	
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.50
						Slope	0.16
Luverne-------------	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.16	Slope	0.16	Too clayey	0.50
						Slope	0.16
TsE:							
Troup---------------	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
						Too sandy	0.50
Luverne-------------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Too clayey	0.50
Smithdale-----------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
UdC:							
Udorthents----------	90	Not rated		Not limited		Not rated	
UdE:							
Udorthents----------	90	Not rated		Very limited		Not rated	
				Slope	1.00		
Ur:							
Urban land----------	95	Not rated		Not limited		Not rated	
WmB:							
Williamsville-------	90	Somewhat limited		Not limited		Very limited	
		Too clayey	0.50			Hard to compact	1.00
						Too clayey	0.50
WmC:							
Williamsville-------	85	Somewhat limited		Not limited		Very limited	
		Too clayey	0.50			Hard to compact	1.00
						Too clayey	0.50

Table 14a.--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 sand or gravel. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
ArC:					
Arundel	85	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
ArE:					
Arundel	85	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
BbA:					
Bibb	50	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.03
Iuka	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.03
BcB:					
Blanton	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
BcC:					
Blanton	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
BfB:					
Bonifay	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.10
BfC:					
Bonifay	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.10
BoB:					
Bonneau	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BrC:					
Brantley	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09
BrE:					
Brantley	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09

Table 14a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
BrF:					
Brantley------------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09
CaA:					
Casemore------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CmB:					
Compass-------------	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.05
CoC:					
Cowarts-------------	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09
CtE:					
Cowarts-------------	50	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09
Troup---------------	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
DoA:					
Dothan--------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DoB:					
Dothan--------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DoC:					
Dothan--------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
EuA:					
Eunola--------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
FaB:					
Faceville-----------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
FlA:					
Fluvaquents---------	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.03

Table 14a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
FqB:					
Fuquay	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.07
FqC:					
Fuquay	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.07
GrA:					
Greenville	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
GrB:					
Greenville	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
GsC2:					
Greenville	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
GtD3:					
Greenville	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HaC2:					
Halso	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HaE2:					
Halso	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HsC2:					
Hannon	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Sumter	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ImA:					
Iuka	45	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.03
Marietta	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
LaA:					
Leeper	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 14a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
LaA:					
Marietta------------	35	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
LcB:					
Lucy----------------	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.10
LcC:					
Lucy----------------	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.10
LvB:					
Luverne-------------	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.05
LvC:					
Luverne-------------	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.05
LvD:					
Luverne-------------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.05
LvE:					
Luverne-------------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.05
MbB:					
Malbis--------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MbC:					
Malbis--------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MKA:					
Mantachie-----------	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Kinston-------------	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Iuka----------------	20	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.03
NsE:					
Nankin--------------	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04

Table 14a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
NsE:					
Springhill----------	26	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.05
Lucy----------------	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.10
OrA:					
Orangeburg----------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OrB:					
Orangeburg----------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OrC:					
Orangeburg----------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OuC:					
Orangeburg----------	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Urban land----------	40	Not rated		Not rated	
PoA:					
Pelham--------------	50	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
Ocilla--------------	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Pt:					
Pits----------------	95	Not rated		Not rated	
RbA:					
Rains---------------	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Bethera-------------	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ReA:					
Red Bay-------------	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04
ReB:					
Red Bay-------------	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04

Table 14a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel: Rating class	Value	Potential source of sand: Rating class	Value
SmD:					
Smithdale-----------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
SpC2:					
Springhill----------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.05
SpD2:					
Springhill----------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.05
StE2:					
Sumter--------------	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hannon--------------	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TaB:					
Troup---------------	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
TaC:					
Troup---------------	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
TaD:					
Troup---------------	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
TgD:					
Troup---------------	50	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
Alaga---------------	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.11
		Thickest layer	0.00	Bottom layer	0.11
ToE:					
Troup---------------	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
Lucy----------------	30	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.10
Luverne-------------	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.05

Table 14a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
TrD:					
Troup---------------	55	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
Luverne-------------	35	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.05
TsE:					
Troup---------------	35	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
Luverne-------------	30	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.05
Smithdale-----------	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
UdC:					
Udorthents----------	90	Not rated		Not rated	
UdE:					
Udorthents----------	90	Not rated		Not rated	
Ur:					
Urban land----------	95	Not rated		Not rated	
WmB:					
Williamsville-------	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
WmC:					
Williamsville-------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02

Table 14b.--Construction Materials (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 0.00 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 source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
ArC:							
Arundel	85	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.19	Too acid	0.50
		Too acid	0.50			Depth to bedrock	0.90
ArE:							
Arundel	85	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Too acid	0.50	Shrink-swell	0.19	Too acid	0.50
BbA:							
Bibb	50	Fair		Poor		Poor	
		Too acid	0.32	Wetness depth	0.00	Wetness depth	0.00
						Too acid	0.88
Iuka	40	Fair		Fair		Fair	
		Too acid	0.12	Wetness depth	0.53	Wetness depth	0.53
						Too acid	0.88
BcB:							
Blanton	90	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Too acid	0.88
		Too acid	0.32				
BcC:							
Blanton	85	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Too acid	0.88
		Too acid	0.32				
BfB:							
Bonifay	90	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.07
		Too sandy	0.07			Too acid	0.88
		Too acid	0.32				
BfC:							
Bonifay	90	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.07
		Too sandy	0.07			Too acid	0.88
		Too acid	0.32				
BoB:							
Bonneau	90	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.02
		Too sandy	0.02			Too acid	0.98
		Organic matter content low	0.05				

Table 14b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
BrC:							
Brantley	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.96	Too acid	0.88
		Too acid	0.32				
BrE:							
Brantley	85	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Slope	0.00
		Organic matter content low	0.12	Slope	0.00	Too clayey	0.00
				Shrink-swell	0.96	Too acid	0.88
		Too acid	0.32				
BrF:							
Brantley	85	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.12	Low strength	0.00	Too clayey	0.00
				Shrink-swell	0.96	Too acid	0.88
		Too acid	0.32				
CaA:							
Casemore	90	Fair		Poor		Poor	
		Organic matter content low	0.12	Wetness depth	0.00	Wetness depth	0.00
				Low strength	0.22		
		Too acid	0.68				
CmB:							
Compass	90	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.89	Too acid	0.88
		Organic matter content low	0.02			Wetness depth	0.89
		Too acid	0.50				
CoC:							
Cowarts	90	Fair		Good		Fair	
		Organic matter content low	0.02			Too acid	0.88
		Too acid	0.50				
CtE:							
Cowarts	50	Fair		Good		Fair	
		Organic matter content low	0.02			Slope	0.04
						Too acid	0.88
		Too acid	0.50				
Troup	40	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Slope	0.04
		Organic matter content low	0.12			Too acid	0.98
DoA:							
Dothan	90	Fair		Good		Fair	
		Organic matter content low	0.08			Too acid	0.98
		Too acid	0.54				

Table 14b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
DoB:							
Dothan--------------	90	Fair		Good		Fair	
		Organic matter content low	0.08			Too acid	0.98
		Too acid	0.54				
DoC:							
Dothan--------------	90	Fair		Good		Fair	
		Organic matter content low	0.08			Too acid	0.98
		Too acid	0.54				
EuA:							
Eunola--------------	90	Fair		Fair		Fair	
		Too acid	0.32	Wetness depth	0.53	Wetness depth	0.53
		Organic matter content low	0.68			Too acid	0.88
FaB:							
Faceville-----------	90	Poor		Fair		Poor	
		Too clayey	0.00	Low strength	0.10	Too clayey	0.00
		Organic matter content low	0.02			Too acid	0.88
		Too acid	0.50				
FlA:							
Fluvaquents---------	90	Fair		Poor		Poor	
		Too acid	0.50	Wetness depth	0.00	Wetness depth	0.00
						Too acid	0.88
FqB:							
Fuquay--------------	90	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.47
		Too sandy	0.47			Too acid	0.98
		Organic matter content low	0.50				
FqC:							
Fuquay--------------	90	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.47
		Too sandy	0.47			Too acid	0.98
		Organic matter content low	0.50				
GrA:							
Greenville----------	90	Poor		Fair		Poor	
		Too clayey	0.00	Low strength	0.22	Too clayey	0.00
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54				
GrB:							
Greenville----------	90	Poor		Fair		Poor	
		Too clayey	0.00	Low strength	0.22	Too clayey	0.00
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54				

Table 14b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
GsC2:							
Greenville----------	90	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54				
GtD3:							
Greenville----------	85	Poor		Fair		Poor	
		Too clayey	0.00	Low strength	0.22	Too clayey	0.00
		Organic matter content low	0.12			Slope	0.84
		Too acid	0.50			Too acid	0.98
HaC2:							
Halso---------------	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.12	Depth to bedrock	0.07	Too acid	0.59
		Organic matter content low	0.50	Shrink-swell	0.12		
HaE2:							
Halso---------------	85	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.12	Depth to bedrock	0.07	Slope	0.00
		Organic matter content low	0.50	Shrink-swell	0.12	Too acid	0.59
HsC2:							
Hannon--------------	50	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Organic matter content low	0.12	Low strength	0.22	Too acid	0.98
		Carbonate content	0.46				
Sumter--------------	40	Fair		Poor		Fair	
		Droughty	0.42	Low strength	0.00	Depth to bedrock	0.54
		Depth to bedrock	0.54	Depth to bedrock	0.00	Too clayey	0.59
		Carbonate content	0.68	Shrink-swell	0.99	Carbonate content	0.95
ImA:							
Iuka----------------	45	Fair		Fair		Fair	
		Too acid	0.12	Wetness depth	0.53	Wetness depth	0.53
		Organic matter content low	0.88			Too acid	0.88
Marietta------------	40	Fair		Fair		Fair	
		Too acid	0.74	Wetness depth	0.14	Wetness depth	0.14
LaA:							
Leeper--------------	50	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.50	Shrink-swell	0.12	Wetness depth	0.14
				Wetness depth	0.14		
Marietta------------	35	Fair		Fair		Fair	
		Too acid	0.74	Wetness depth	0.14	Wetness depth	0.14

Table 14b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
LcB:							
Lucy	90	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Too acid	0.98
		Organic matter content low	0.02				
LcC:							
Lucy	90	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Too acid	0.98
		Organic matter content low	0.02				
LvB:							
Luverne	90	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Too acid	0.12			Too acid	0.59
		Organic matter content low	0.50				
LvC:							
Luverne	90	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Too acid	0.12			Too acid	0.59
		Organic matter content low	0.50				
LvD:							
Luverne	85	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Too acid	0.12			Too acid	0.59
		Organic matter content low	0.50			Slope	0.84
LvE:							
Luverne	85	Poor		Fair		Poor	
		Too clayey	0.00	Slope	0.50	Slope	0.00
		Too acid	0.12			Too clayey	0.00
		Organic matter content low	0.50			Too acid	0.59
MbB:							
Malbis	90	Fair		Poor		Fair	
		Organic matter content low	0.02	Low strength	0.00	Too acid	0.88
				Wetness depth	0.89	Wetness depth	0.89
		Too acid	0.50				
MbC:							
Malbis	90	Fair		Poor		Fair	
		Organic matter content low	0.02	Low strength	0.00	Too acid	0.88
				Wetness depth	0.89	Wetness depth	0.89
		Too acid	0.50				
MKA:							
Mantachie	40	Fair		Poor		Poor	
		Too acid	0.08	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.50			Too acid	0.50

Table 14b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
MKA:							
Kinston	25	Fair		Poor		Poor	
		Too acid	0.08	Wetness depth	0.00	Wetness depth	0.00
				Low strength	0.00	Too acid	0.50
Iuka	20	Fair		Fair		Fair	
		Too acid	0.12	Wetness depth	0.53	Wetness depth	0.53
		Organic matter content low	0.88			Too acid	0.88
NsE:							
Nankin	40	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.12			Too acid	0.88
Springhill	26	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
		Too acid	0.32			Too acid	0.88
Lucy	25	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.02			Too acid	0.98
OrA:							
Orangeburg	90	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.88
		Too acid	0.32				
OrB:							
Orangeburg	90	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.88
		Too acid	0.32				
OrC:							
Orangeburg	90	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.88
		Too acid	0.32				
OuC:							
Orangeburg	50	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.88
		Too acid	0.32				
Urban land	40	Not rated		Not rated		Not rated	
PoA:							
Pelham	50	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.08			Too acid	0.98

Table 14b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
PoA:							
Ocilla	40	Poor		Fair		Poor	
		Too sandy	0.00	Wetness depth	0.29	Too sandy	0.00
		Wind erosion	0.00			Wetness depth	0.29
		Organic matter content low	0.08			Too acid	0.88
Pt:							
Pits	95	Not rated		Not rated		Not rated	
RbA:							
Rains	55	Fair		Poor		Poor	
		Organic matter content low	0.08	Wetness depth	0.00	Wetness depth	0.00
						Too acid	0.59
		Too acid	0.50				
Bethera	35	Poor		Poor		Poor	
		Too clayey	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.50	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.88	Shrink-swell	0.87	Too acid	0.76
ReA:							
Red Bay	90	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54				
ReB:							
Red Bay	90	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54				
SmD:							
Smithdale	85	Fair		Good		Fair	
		Too acid	0.32			Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
SpC2:							
Springhill	85	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.88
		Too acid	0.32				
SpD2:							
Springhill	85	Fair		Good		Fair	
		Organic matter content low	0.12			Slope	0.37
						Too acid	0.88
		Too acid	0.32				
StE2:							
Sumter	50	Poor		Poor		Poor	
		Carbonate content	0.00	Low strength	0.00	Carbonate content	0.00
		Droughty	0.42	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.54	Slope	0.50	Depth to bedrock	0.54

Table 14b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
StE2:							
Hannon	35	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Carbonate content	0.08	Low strength	0.22	Slope	0.00
		Organic matter content low	0.12	Slope	0.50	Too acid	0.98
TaB:							
Troup	90	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Too acid	0.98
		Organic matter content low	0.12				
TaC:							
Troup	90	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Too acid	0.98
		Organic matter content low	0.12				
TaD:							
Troup	85	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Slope	0.84
		Organic matter content low	0.12			Too acid	0.98
TgD:							
Troup	50	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Slope	0.84
		Organic matter content low	0.12			Too acid	0.98
Alaga	40	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.84
		Organic matter content low	0.02			Too acid	0.88
ToE:							
Troup	40	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.12			Too acid	0.98
Lucy	30	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.02			Too acid	0.98
Luverne	20	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Too acid	0.12			Too clayey	0.00
		Organic matter content low	0.50			Too acid	0.59

Table 14b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
TrD:							
Troup---------------	55	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Slope	0.84
		Organic matter content low	0.12			Too acid	0.98
Luverne-------------	35	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Too acid	0.12			Too acid	0.59
		Organic matter content low	0.50			Slope	0.84
TsE:							
Troup---------------	35	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Too sandy	0.00			Too sandy	0.00
		Organic matter content low	0.12			Too acid	0.98
Luverne-------------	30	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Too acid	0.12			Too clayey	0.00
		Organic matter content low	0.50			Too acid	0.59
Smithdale-----------	25	Fair		Fair		Poor	
		Too acid	0.32	Slope	0.50	Slope	0.00
		Organic matter content low	0.50			Too acid	0.88
UdC:							
Udorthents----------	90	Not rated		Not rated		Not rated	
UdE:							
Udorthents----------	90	Not rated		Not rated		Not rated	
Ur:							
Urban land----------	95	Not rated		Not rated		Not rated	
WmB:							
Williamsville-------	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.08	Shrink-swell	0.99	Too acid	0.59
		Too acid	0.12				
WmC:							
Williamsville-------	85	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.08	Shrink-swell	0.99	Too acid	0.59
		Too acid	0.12				

Table 15.--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		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ArC:							
Arundel	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.04	Thin layer	0.70	Depth to water	1.00
		Seepage	0.01	Seepage	0.02		
ArE:							
Arundel	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.28	Thin layer	0.70	Depth to water	1.00
		Depth to bedrock	0.04	Seepage	0.02		
		Seepage	0.01				
BbA:							
Bibb	50	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	1.00		
				Seepage	0.03		
Iuka	40	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	0.10
						Depth to saturated zone	0.01
				Piping	0.99		
				Seepage	0.03		
BcB:							
Blanton	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Depth to water	1.00
BcC:							
Blanton	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Depth to water	1.00
BfB:							
Bonifay	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
BfC:							
Bonifay	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
BoB:							
Bonneau	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.09	Depth to water	1.00
BrC:							
Brantley	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.09	Depth to water	1.00
BrE:							
Brantley	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.09	Depth to water	1.00
		Slope	0.28				

Table 15.--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
BrF:							
Brantley------------	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.09	Depth to water	1.00
		Slope	0.88				
CaA:							
Casemore-----------	90	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.03	Depth to saturated zone	1.00	Slow refill	0.97
				Piping	0.48	Cutbanks cave	0.10
CmB:							
Compass-------------	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.86	Depth to water	1.00
				Seepage	0.05		
CoC:							
Cowarts-------------	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Seepage	0.09	Depth to water	1.00
CtE:							
Cowarts-------------	50	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Seepage	0.09	Depth to water	1.00
		Slope	0.02				
Troup---------------	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Depth to water	1.00
		Slope	0.02				
DoA:							
Dothan--------------	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.46	Depth to water	1.00
DoB:							
Dothan--------------	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.46	Depth to water	1.00
DoC:							
Dothan--------------	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.46	Depth to water	1.00
EuA:							
Eunola--------------	90	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	0.10
						Depth to saturated zone	0.01
FaB:							
Faceville-----------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.37	Depth to water	1.00
FlA:							
Fluvaquents---------	90	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Piping	1.00		

Table 15.--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
FqB:							
Fuquay--------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.07	Depth to water	1.00
FqC:							
Fuquay--------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.07	Depth to water	1.00
GrA:							
Greenville----------	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.52	Depth to water	1.00
GrB:							
Greenville----------	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.52	Depth to water	1.00
GsC2:							
Greenville----------	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.52	Depth to water	1.00
GtD3:							
Greenville----------	85	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.35	Depth to water	1.00
HaC2:							
Halso---------------	90	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.01	Thin layer	0.34	Depth to water	1.00
				Hard to pack	0.02		
HaE2:							
Halso---------------	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.03	Thin layer	0.34	Depth to water	1.00
		Depth to bedrock	0.01	Hard to pack	0.02		
HsC2:							
Hannon--------------	50	Somewhat limited		Not limited		Very limited	
		Seepage	0.03			Depth to water	1.00
Sumter--------------	40	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.11	Thin layer	0.86	Depth to water	1.00
		Seepage	0.03				
ImA:							
Iuka----------------	45	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	0.10
						Depth to saturated zone	0.01
				Piping	0.99		
				Seepage	0.03		
Marietta------------	40	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.01		
LaA:							
Leeper--------------	50	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Slow refill	1.00
						Cutbanks cave	0.10
				Hard to pack	0.99		

Table 15.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LaA:							
Marietta	35	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.01		
LcB:							
Lucy	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
LcC:							
Lucy	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
LvB:							
Luverne	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.84	Depth to water	1.00
				Seepage	0.05		
LvC:							
Luverne	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.84	Depth to water	1.00
				Seepage	0.05		
LvD:							
Luverne	85	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.84	Depth to water	1.00
				Seepage	0.05		
LvE:							
Luverne	85	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.84	Depth to water	1.00
		Slope	0.12	Seepage	0.05		
MbB:							
Malbis	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.86	Depth to water	1.00
				Piping	0.84		
MbC:							
Malbis	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.86	Depth to water	1.00
				Piping	0.84		
MKA:							
Mantachie	40	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	1.00		
Kinston	25	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	0.65		

Table 15.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MKA:							
Iuka	20	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	0.10
				Piping	0.99	Depth to saturated zone	0.01
				Seepage	0.03		
NsE:							
Nankin	40	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Seepage	0.04	Depth to water	1.00
		Slope	0.12				
Springhill	26	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.05	Depth to water	1.00
		Slope	0.12				
Lucy	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
		Slope	0.12				
OrA:							
Orangeburg	90	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
OrB:							
Orangeburg	90	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
OrC:							
Orangeburg	90	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
OuC:							
Orangeburg	50	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Urban land	40	Not limited		Not rated		Not rated	
PoA:							
Pelham	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.06		
Ocilla	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
Pt:							
Pits	95	Not rated		Not rated		Not rated	
RbA:							
Rains	55	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
				Piping	0.78	Cutbanks cave	0.10
Bethera	35	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.01	Depth to saturated zone	1.00	Slow refill	0.30
				Piping	0.01	Cutbanks cave	0.10

Table 15.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ReA:							
Red Bay-------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.04	Depth to water	1.00
ReB:							
Red Bay-------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.04	Depth to water	1.00
SmD:							
Smithdale-----------	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
				Seepage	0.02		
SpC2:							
Springhill----------	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.05	Depth to water	1.00
SpD2:							
Springhill----------	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.05	Depth to water	1.00
		Slope	0.01				
StE2:							
Sumter--------------	50	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.12	Thin layer	0.86	Depth to water	1.00
		Depth to bedrock	0.11				
		Seepage	0.03				
Hannon--------------	35	Somewhat limited		Not limited		Very limited	
		Slope	0.12			Depth to water	1.00
		Seepage	0.03				
TaB:							
Troup---------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Depth to water	1.00
TaC:							
Troup---------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Depth to water	1.00
TaD:							
Troup---------------	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Depth to water	1.00
TgD:							
Troup---------------	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Depth to water	1.00
Alaga---------------	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.11	Depth to water	1.00
ToE:							
Troup---------------	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Depth to water	1.00
		Slope	0.12				
Lucy----------------	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
		Slope	0.12				

Table 15.--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
ToE:							
Luverne	20	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.84	Depth to water	1.00
		Slope	0.28	Seepage	0.05		
TrD:							
Troup	55	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Depth to water	1.00
Luverne	35	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.84	Depth to water	1.00
				Seepage	0.05		
TsE:							
Troup	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Depth to water	1.00
		Slope	0.12				
Luverne	30	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.84	Depth to water	1.00
		Slope	0.28	Seepage	0.05		
Smithdale	25	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	0.12	Seepage	0.02		
UdC:							
Udorthents	90	Not limited		Not rated		Not rated	
UdE:							
Udorthents	90	Somewhat limited		Not rated		Not rated	
		Slope	0.12				
Ur:							
Urban land	95	Not limited		Not rated		Not rated	
WmB:							
Williamsville	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.87	Depth to water	1.00
				Seepage	0.02		
WmC:							
Williamsville	85	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.87	Depth to water	1.00
				Seepage	0.02		

Table 16.--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*	
ArC:												
Arundel---------	0-6	Fine sandy loam	SC-SM, SM	A-4, A-2	0	0-5	85-100	85-100	55-85	60-90	10-25	NP-10
	6-29	Clay, clay loam, sandy clay	CH, CL	A-7	0	0-5	80-100	80-100	80-100	65-95	44-65	25-50
	29-35	Fine sandy loam, sandy clay loam, clay loam	CL, CH, ML	A-6, A-7	0	0-15	80-100	80-100	55-85	25-60	10-50	4-35
	35-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
ArE:												
Arundel---------	0-6	Fine sandy loam	SM, SC-SM	A-2, A-4	0	0-5	85-100	85-100	55-85	60-90	10-25	NP-10
	6-29	Clay, clay loam, sandy clay	CL, CH	A-7	0	0-5	80-100	80-100	80-100	65-95	44-65	25-50
	29-35	Fine sandy loam, sandy clay loam, clay loam	CL, CH, ML	A-6, A-7	0	0-15	80-100	80-100	55-85	25-60	10-50	4-35
	35-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
BbA:												
Bibb------------	0-4	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	60-90	30-60	0-25	NP-7
	4-50	Sandy loam, fine sandy loam, loam	SC-SM, CL-ML	A-4	0	0	95-100	85-100	65-100	36-75	18-29	4-12
	50-80	Sandy loam, loam, sand	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	80-100	80-100	40-100	30-90	0-30	NP-7
Iuka------------	0-9	Fine sandy loam	CL-ML, ML	A-4	0	0	100	99-100	85-100	50-75	0-30	NP-15
	9-49	Sandy loam, fine sandy loam, loam	ML, CL, SM	A-4	0	0	95-100	85-100	65-100	36-75	18-29	4-12
	49-80	Sandy clay loam, clay loam, loam	CL, ML, SC, SM	A-4, A-6	0	0	100	95-100	75-100	60-95	20-45	8-22
BcB:												
Blanton---------	0-6	Loamy sand	SM	A-2	0	0	98-100	98-100	65-95	13-20	0-14	NP
	6-46	Loamy sand, sand	SM	A-2	0	0	98-100	98-100	65-95	13-20	0-14	NP
	46-56	Sandy clay loam, sandy loam	SC-SM, SC	A-4, A-6	0	0	100	95-100	69-100	25-50	22-49	7-28
	56-80	Sandy clay loam, sandy loam	SC, SC-SM	A-4, A-6	0	0	100	95-100	69-100	25-50	22-49	7-28

Table 16.--Engineering Properties--Continued

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	
BcC:												
Blanton---------	0-6	Loamy sand	SM	A-2	0	0	98-100	98-100	65-95	13-20	0-14	NP
	6-46	Loamy sand, sand	SM	A-2	0	0	98-100	98-100	65-95	13-20	0-14	NP
	46-56	Sandy clay loam, sandy loam	SC, SC-SM	A-6, A-4	0	0	100	95-100	69-100	25-50	22-49	7-28
	56-80	Sandy clay loam, sandy loam	SC-SM, SC	A-6, A-4	0	0	100	95-100	69-100	25-50	22-49	7-28
BfB:												
Bonifay---------	0-9	Loamy sand	SM	A-2	0	0	98-100	98-100	65-95	13-20	0-14	NP
	9-60	Loamy sand, sand	SM	A-2	0	0	98-100	98-100	65-95	13-20	0-14	NP
	60-82	Sandy clay loam, sandy loam, sandy clay	SC-SM, SC	A-6, A-4	0	0	95-100	90-100	60-95	30-50	25-45	5-22
BfC:												
Bonifay---------	0-9	Loamy sand	SM	A-2	0	0	98-100	98-100	65-95	13-20	0-14	NP
	9-60	Loamy sand, sand	SM	A-2	0	0	98-100	98-100	65-95	13-20	0-14	NP
	60-82	Sandy clay loam, sandy loam, sandy clay	SC, SC-SM	A-4, A-6	0	0	95-100	90-100	60-95	30-50	25-45	5-22
BoB:												
Bonneau---------	0-13	Loamy sand	SM	A-2	0	0	100	100	50-95	15-35	0-14	NP
	13-28	Loamy fine sand, loamy sand	SM	A-2	0	0	100	100	50-95	15-35	0-14	NP
	28-45	Fine sandy loam, sandy clay loam, sandy loam	SC-SM, SC	A-6, A-4	0	0	100	100	60-100	30-50	20-40	4-18
	45-85	Sandy clay loam, sandy loam, sandy clay	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	100	60-95	25-60	20-40	4-21
BrC:												
Brantley--------	0-3	Sandy loam	SM	A-4	0	0	85-100	80-95	60-90	19-45	0-14	NP
	3-10	Loamy sand, sandy loam	SM	A-2, A-4	0	0	85-100	80-95	60-90	19-45	0-14	NP
	10-48	Sandy clay, clay loam, sandy clay loam	ML, CL, MH	A-7, A-6	0	0	95-100	95-100	90-100	60-75	41-55	16-22
	48-80	Sandy loam, loamy sand	SM	A-2, A-4	0	0	85-100	80-95	60-90	19-45	0-14	NP
BrE:												
Brantley--------	0-3	Sandy loam	SM	A-4	0	0	85-100	80-95	60-90	19-45	0-14	NP
	3-10	Loamy sand, sandy loam	SM	A-2, A-4	0	0	85-100	80-95	60-90	19-45	0-14	NP
	10-48	Sandy clay, clay loam, sandy clay loam	ML, CL, MH	A-7, A-6	0	0	95-100	95-100	90-100	60-75	41-55	16-22
	48-80	Sandy loam, loamy sand	SM	A-2, A-4	0	0	85-100	80-95	60-90	19-45	0-14	NP

Table 16.--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*	
BrF:												
Brantley--------	0-3	Sandy loam	SM	A-4	0	0	85-100	80-95	60-90	19-45	0-14	NP
	3-10	Loamy sand, sandy loam	SM	A-2, A-4	0	0	85-100	80-95	60-90	19-45	0-14	NP
	10-48	Sandy clay, clay loam, sandy clay loam	ML, CL, MH	A-7, A-6	0	0	95-100	95-100	90-100	60-75	41-55	16-22
	48-80	Sandy loam, loamy sand	SM	A-2, A-4	0	0	85-100	80-95	60-90	19-45	0-14	NP
CaA:												
Casemore--------	0-3	Loam	SM, ML	A-4	0	0	100	90-100	70-85	40-55	22-31	4-9
	3-7	Loam	ML, SM	A-4	0	0	100	90-100	70-85	40-55	22-31	4-9
	7-30	Sandy clay loam, loam, clay loam	CL, SC, ML	A-6, A-4	0	0	100	90-100	80-95	40-80	29-46	13-25
	30-80	Sandy clay loam, loam, clay loam	CL, SC, ML	A-6, A-4	0	0	100	90-100	80-95	40-80	29-46	13-25
CmB:												
Compass---------	0-10	Loamy sand	SM	A-2	0	0	95-100	95-100	75-95	13-25	0-14	NP
	10-15	Sandy loam, fine sandy loam	SM	A-4	0	0	95-100	95-100	75-95	20-30	0-10	NP-3
	15-37	Sandy loam, fine sandy loam	SM, SC-SM, SC	A-4, A-6	0	0	100	100	90-100	20-50	0-30	NP-15
	37-80	Sandy loam, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-4, A-6	0	0	100	100	90-100	20-50	0-30	NP-15
CoC:												
Cowarts---------	0-4	Sandy loam	SM	A-4	0	0	95-100	92-100	75-90	20-40	0-25	NP-5
	4-10	Sandy loam, loamy sand	SM	A-2, A-4	0	0	95-100	92-100	75-90	20-40	0-25	NP-5
	10-36	Sandy clay loam, sandy loam	SC-SM, SC, SM	A-4, A-6	0	0	95-100	90-100	60-95	23-45	20-40	5-20
	36-80	Sandy loam, sandy clay loam	SC, CL, CL-ML, SC-SM	A-4, A-6	0	0	85-100	80-100	60-95	25-58	20-40	NP-15
CtE:												
Cowarts---------	0-4	Sandy loam	SM	A-4	0	0	95-100	92-100	75-90	20-40	0-25	NP-5
	4-10	Sandy loam, loamy sand	SM	A-2, A-4	0	0	95-100	92-100	75-90	20-40	0-25	NP-5
	10-36	Sandy clay loam, sandy loam	SC-SM, SC, SM	A-4, A-6	0	0	95-100	90-100	60-95	23-45	20-40	5-20
	36-80	Sandy loam, sandy clay loam	SC, CL, CL-ML, SC-SM	A-4, A-6	0	0	85-100	80-100	60-95	25-58	20-40	NP-15
Troup-----------	0-3	Loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	3-50	Loamy fine sand, loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	50-80	Sandy clay loam, sandy loam	SC-SM, SC, SM	A-4, A-6	0	0	95-100	90-100	60-90	24-55	19-40	4-20

Table 16.--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*	
DoA:												
Dothan----------	0-9	Sandy loam	SM	A-4	0	0	95-100	92-100	75-90	20-40	0-25	NP-5
	9-35	Sandy clay loam, sandy loam	SC, SC-SM, SM	A-4, A-6	0	0	95-100	92-100	60-90	23-49	0-40	NP-16
	35-80	Sandy clay loam, sandy clay	SC-SM, CL, CL-ML, SC	A-7, A-6, A-4	0	0	95-100	92-100	70-95	30-53	25-45	4-23
DoB:												
Dothan----------	0-9	Sandy loam	SM	A-4	0	0	95-100	92-100	75-90	20-40	0-25	NP-5
	9-35	Sandy clay loam, sandy loam	SC, SC-SM, SM	A-4, A-6	0	0	95-100	92-100	60-90	23-49	0-40	NP-16
	35-80	Sandy clay loam, sandy clay	SC-SM, CL, CL-ML, SC	A-7, A-6, A-4	0	0	95-100	92-100	70-95	30-53	25-45	4-23
DoC:												
Dothan----------	0-9	Sandy loam	SM	A-4	0	0	95-100	92-100	75-90	20-40	0-25	NP-5
	9-35	Sandy clay loam, sandy loam	SC, SC-SM, SM	A-4, A-6	0	0	95-100	92-100	60-90	23-49	0-40	NP-16
	35-80	Sandy clay loam, sandy clay	SC-SM, CL, CL-ML, SC	A-7, A-6, A-4	0	0	95-100	92-100	70-95	30-53	25-45	4-23
EuA:												
Eunola----------	0-6	Sandy loam	SM	A-4	0	0	98-100	95-100	75-95	20-40	0-14	NP
	6-10	Fine sandy loam, loam	SM	A-4	0	0	100	98-100	60-85	30-50	0-14	NP
	10-46	Sandy clay loam, clay loam, fine sandy loam	SC, SM, SC-SM, CL	A-6, A-4	0	0	100	90-100	75-95	30-60	0-36	NP-15
	46-53	Fine sandy loam, sandy loam	SM	A-4	0	0	100	98-100	60-85	30-50	0-14	NP
	53-80	Sandy clay loam, clay loam, fine sandy loam	CL, SC, SC-SM, SM	A-4, A-6	0	0	100	90-100	75-95	30-60	0-36	NP-15
FaB:												
Faceville-------	0-8	Fine sandy loam	SM, SC-SM	A-4	0	0	90-100	90-100	63-97	40-58	10-25	NP-10
	8-32	Sandy clay, clay, sandy clay loam	CL, MH, SC	A-4, A-6, A-7	0	0	98-100	90-100	85-98	40-80	15-55	10-25
	32-80	Sandy clay, clay, clay loam	CL, MH, SC	A-6, A-7	0	0	98-100	95-100	75-99	40-80	25-55	10-25
FlA:												
Fluvaquents-----	0-6	Sandy loam	SM, ML, CL-ML	A-4	0	0	100	90-100	60-90	30-60	0-25	NP-7
	6-80	Sandy loam, fine sandy loam, loam	SC-SM, CL-ML	A-4, A-6	0	0	95-100	85-100	65-100	36-75	18-29	4-12

Table 16.--Engineering Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
FqB:												
Fuquay----------	0-4	Loamy fine sand	SM, SP-SM	A-2	0	0	95-100	90-100	50-83	5-35	0-14	NP
	4-30	Loamy fine sand, loamy sand	SP-SM, SM	A-2	0	0	95-100	90-100	50-83	5-35	0-14	NP
	30-53	Sandy loam, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-6, A-4	0	0	85-100	85-100	70-90	23-45	0-45	NP-13
	53-80	Sandy clay loam, sandy clay, sandy loam	SM, SC, SC-SM	A-4, A-6	0	0	95-100	90-100	58-90	28-49	25-45	8-17
FqC:												
Fuquay----------	0-4	Loamy fine sand	SM, SP-SM	A-2	0	0	95-100	90-100	50-83	5-35	0-14	NP
	4-30	Loamy fine sand, loamy sand	SP-SM, SM	A-2	0	0	95-100	90-100	50-83	5-35	0-14	NP
	30-53	Sandy loam, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-6, A-4	0	0	85-100	85-100	70-90	23-45	0-45	NP-13
	53-80	Sandy clay loam, sandy clay, sandy loam	SM, SC, SC-SM	A-4, A-6	0	0	95-100	90-100	58-90	28-49	25-45	8-17
GrA:												
Greenville------	0-8	Sandy loam	SC-SM, SM	A-4	0	0	95-100	90-100	65-85	25-55	10-25	NP-10
	8-80	Sandy clay, clay, clay loam	CL, MH, SC	A-4, A-6, A-7	0	0	98-100	95-100	80-99	40-80	28-55	7-25
GrB:												
Greenville------	0-8	Sandy loam	SC-SM, SM	A-4	0	0	95-100	90-100	65-85	25-55	10-25	NP-10
	8-80	Sandy clay, clay, clay loam	CL, MH, SC	A-4, A-6, A-7	0	0	98-100	95-100	80-99	40-80	28-55	7-25
GsC2:												
Greenville------	0-8	Sandy clay loam	CL, SC	A-4	0	0	95-100	90-100	65-85	25-55	10-30	NP-20
	8-80	Sandy clay, clay, clay loam	CL, MH, SC	A-4, A-6, A-7	0	0	98-100	95-100	80-99	40-80	28-55	7-25
GtD3:												
Greenville------	0-3	Clay loam	CL	A-4, A-6	0	0	100	85-100	80-96	45-75	23-38	7-20
	3-72	Sandy clay, clay, clay loam	SC, CL, MH	A-4, A-6, A-7	0	0	98-100	95-100	80-99	40-80	28-55	7-25
HaC2:												
Halso-----------	0-5	Fine sandy loam	ML, SM	A-4	0	0	95-100	95-100	70-100	40-70	0-20	NP
	5-43	Clay, silty clay	CH, MH	A-7	0	0	95-100	95-100	90-100	80-98	45-70	15-35
	43-52	Clay, clay loam	CH, MH	A-7, A-6	0	0-5	95-100	95-100	90-100	80-98	45-70	15-35
	52-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 16.--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*	
HaE2:												
Halso-----------	0-5	Fine sandy loam	ML, SM	A-4	0	0	95-100	95-100	70-100	40-70	0-20	NP
	5-43	Clay, silty clay	CH, MH	A-7	0	0	95-100	95-100	90-100	80-98	45-70	15-35
	43-52	Clay, clay loam	CH, MH	A-7, A-6	0	0-5	95-100	95-100	90-100	80-98	45-70	15-35
	52-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
HsC2:												
Hannon----------	0-3	Clay	CL	A-6, A-7	0	0	100	100	90-100	75-95	32-50	20-30
	3-22	Clay, silty clay	CH	A-7	0	0	100	100	95-100	90-100	55-75	35-50
	22-27	Clay loam, clay, silty clay	CL, CH	A-7	0	0	100	100	90-100	85-95	42-65	30-45
	27-80	Sandy clay loam, clay loam, loam	CL, SC	A-6	0	0	100	90-100	80-95	40-80	29-46	13-25
Sumter----------	0-5	Clay loam	CL	A-6, A-7	0	0	100	100	90-100	75-95	32-50	20-30
	5-23	Clay loam, loam	CL	A-6, A-7	0	0	100	100	90-100	75-95	32-50	20-30
	23-29	Clay loam, loam, sandy clay loam	CL, SC	A-6	0	0	100	90-100	80-95	40-80	29-46	13-25
	29-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
ImA:												
Iuka------------	0-9	Fine sandy loam	CL-ML, ML	A-4	0	0	100	99-100	85-100	50-75	0-30	NP-15
	9-49	Sandy loam, fine sandy loam, loam	ML, CL, SM	A-4	0	0	95-100	85-100	65-100	36-75	18-29	4-12
	49-80	Sandy clay loam, clay loam, loam	CL, ML, SC, SM	A-4, A-6	0	0	100	95-100	75-100	60-95	20-45	8-22
Marietta--------	0-3	Loam	CL, ML	A-4	0	0	100	100	80-95	40-75	20-30	5-10
	3-32	Clay loam, sandy clay loam, loam	SC, CL, ML	A-4, A-6	0	0	100	100	85-100	45-90	25-40	8-20
	32-42	Sandy clay loam, clay loam, fine sandy loam, loam	CL-ML, SC-SM, SC, CL	A-4, A-6	0	0	95-100	85-100	65-100	36-75	18-29	4-12
	42-80	Sandy loam, sandy clay loam	SM, ML, SC, CL	A-4, A-6	0	0	100	95-100	75-100	15-30	10-25	NP-12
LaA:												
Leeper----------	0-3	Loam	CL-ML, ML, CL	A-6, A-4	0	0	100	99-100	85-100	50-75	0-30	NP-15
	3-12	Clay, silty clay, silty clay loam	CH, MH	A-7	0	0	100	100	95-100	80-97	52-75	30-50
	12-62	Clay, silty clay, silty clay loam	CH, MH	A-7	0	0	100	100	95-100	80-97	52-75	30-50
	62-80	Clay, silty clay, silty clay loam	CH, MH	A-7	0	0	100	100	95-100	80-97	52-75	30-50

Table 16.--Engineering Properties--Continued

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*	
LaA:												
Marietta--------	0-3	Loam	CL, ML	A-4	0	0	100	100	80-95	40-75	20-30	5-10
	3-32	Clay loam, sandy clay loam, loam	SC, CL, ML	A-4, A-6	0	0	100	100	85-100	45-90	25-40	8-20
	32-42	Sandy clay loam, clay loam, fine sandy loam, loam	CL-ML, SC-SM, SC, CL	A-4, A-6	0	0	95-100	85-100	65-100	36-75	18-29	4-12
	42-80	Sandy loam, sandy clay loam	SM, ML, SC, CL	A-4, A-6	0	0	100	95-100	75-100	15-30	10-25	NP-12
LcB:												
Lucy------------	0-6	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-90	10-40	0-14	NP
	6-25	Loamy fine sand, loamy sand	SP-SM, SM	A-2	0	0	98-100	95-100	50-90	10-40	0-14	NP
	25-32	Sandy loam, fine sandy loam, sandy clay loam	SM, SC, SC-SM	A-4, A-6	0	0	97-100	95-100	55-95	15-50	10-30	3-20
	32-80	Sandy clay loam, sandy loam, sandy clay	SC, SC-SM, SM	A-6, A-4	0	0	100	95-100	60-95	20-50	20-40	3-20
LcC:												
Lucy------------	0-6	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-90	10-40	0-14	NP
	6-25	Loamy fine sand, loamy sand	SP-SM, SM	A-2	0	0	98-100	95-100	50-90	10-40	0-14	NP
	25-32	Sandy loam, fine sandy loam, sandy clay loam	SM, SC, SC-SM	A-4, A-6	0	0	97-100	95-100	55-95	15-50	10-30	3-20
	32-80	Sandy clay loam, sandy loam, sandy clay	SC, SC-SM, SM	A-6, A-4	0	0	100	95-100	60-95	20-50	20-40	3-20
LvB:												
Luverne---------	0-7	Sandy loam	SM, SC-SM	A-4	0	0-5	87-100	84-100	80-100	30-60	5-19	NP-13
	7-34	Sandy clay, clay, sandy clay loam	MH, CL	A-6, A-7	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	34-45	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	28-49	3-25
	45-82	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	20-49	3-25
LvC:												
Luverne---------	0-7	Sandy loam	SM, SC-SM	A-4	0	0-5	87-100	84-100	80-100	30-60	5-19	NP-13
	7-34	Sandy clay, clay, sandy clay loam	MH, CL	A-6, A-7	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	34-45	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	28-49	3-25
	45-82	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	20-49	3-25

Table 16.--Engineering Properties--Continued

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*	
LvD:												
Luverne---------	0-7	Sandy loam	SM, SC-SM	A-4	0	0-5	87-100	84-100	80-100	30-60	5-19	NP-13
	7-34	Sandy clay, clay, sandy clay loam	MH, CL	A-6, A-7	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	34-45	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	28-49	3-25
	45-82	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	20-49	3-25
LvE:												
Luverne---------	0-7	Sandy loam	SM, SC-SM	A-4	0	0-5	87-100	84-100	80-100	30-60	5-19	NP-13
	7-34	Sandy clay, clay, sandy clay loam	MH, CL	A-6, A-7	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	34-45	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	28-49	3-25
	45-82	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	20-49	3-25
MbB:												
Malbis----------	0-10	Fine sandy loam	ML, SM	A-4	0	0	100	97-100	91-97	40-62	0-30	NP-5
	10-15	Fine sandy loam, sandy loam	SM, ML	A-4	0	0	100	97-100	91-97	40-62	0-30	NP-5
	15-28	Sandy clay loam, loam, clay loam	CL, CL-ML	A-4, A-6	0	0	99-100	95-100	80-100	55-70	21-35	5-11
	28-80	Sandy clay loam, clay loam	CL, ML	A-4, A-6	0	0	98-100	96-100	90-100	56-80	30-49	4-20
MbC:												
Malbis----------	0-10	Fine sandy loam	ML, SM	A-4	0	0	100	97-100	91-97	40-62	0-30	NP-5
	10-15	Fine sandy loam, sandy loam	ML, SM	A-4	0	0	100	97-100	91-97	40-62	0-30	NP-5
	15-28	Sandy clay loam, loam, clay loam	CL, CL-ML	A-4, A-6	0	0	99-100	95-100	80-100	55-70	21-35	5-11
	28-80	Sandy clay loam, clay loam	ML, CL	A-4, A-6	0	0	98-100	96-100	90-100	56-80	30-49	4-20
MKA:												
Mantachie-------	0-6	Loam	CL-ML, ML	A-4	0	0	95-100	90-100	60-85	40-60	0-20	NP-5
	6-29	Sandy clay loam, fine sandy loam, loam	SM, CL-ML, ML, SC-SM	A-2, A-4	0	0	80-100	80-100	40-100	30-90	0-30	NP-7
	29-62	Sandy clay loam, sandy loam	CL, SC	A-4, A-6	0	0	98-100	95-100	71-96	38-58	22-40	3-19
	62-80	Sandy clay loam, fine sandy loam	SC, CL	A-6, A-4	0	0	98-100	95-100	71-96	38-58	22-40	3-19

Table 16.--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	
MKA:												
Kinston---------	0-5	Loam	CL-ML, ML	A-4	0	0	95-100	90-100	60-85	40-60	0-20	NP-5
	5-30	Loam, sandy clay loam, clay loam	CL	A-4, A-6	0	0	100	95-100	75-100	60-95	20-45	8-22
	30-50	Sandy clay loam, clay loam, loam	CL	A-4, A-6	0	0	100	95-100	75-100	60-95	20-45	8-22
	50-80	Clay loam, sandy clay loam, loam	CL	A-4, A-6	0	0	100	95-100	75-100	60-95	20-45	8-22
Iuka------------	0-9	Fine sandy loam	CL-ML, ML	A-4	0	0	100	99-100	85-100	50-75	0-30	NP-15
	9-49	Sandy loam, fine sandy loam, loam	ML, CL, SM	A-4	0	0	95-100	85-100	65-100	36-75	18-29	4-12
	49-80	Sandy clay loam, clay loam, loam	CL, ML, SC, SM	A-4, A-6	0	0	100	95-100	75-100	60-95	20-45	8-22
NsE:												
Nankin----------	0-3	Fine sandy loam	SM	A-4	0	0	95-100	92-100	75-90	20-40	0-25	NP-5
	3-42	Sandy clay, clay, sandy clay loam	CL, CL-ML, ML, SC	A-6, A-7	0	0	98-100	95-100	75-95	40-70	25-45	7-20
	42-60	Sandy clay loam	SC, CL	A-4, A-6	0	0	98-100	95-100	70-85	25-55	20-40	4-16
	60-80	Sandy loam, sandy clay loam	SC, SC-SM, CL	A-4, A-6	0	0	97-100	95-100	75-90	25-45	20-35	4-15
Springhill------	0-6	Sandy loam	SM	A-4	0	0	98-100	95-100	70-96	25-35	0-30	NP-4
	6-50	Sandy clay loam, sandy loam	SC-SM, CL, SC	A-4, A-6	0	0	98-100	95-100	70-96	40-65	22-46	8-21
	50-80	Sandy loam, loamy sand	SC-SM, SM	A-2, A-4	0	0	98-100	95-100	70-96	15-45	0-30	3-16
Lucy------------	0-6	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-90	10-40	0-14	NP
	6-25	Loamy fine sand, loamy sand	SP-SM, SM	A-2	0	0	98-100	95-100	50-90	10-40	0-14	NP
	25-32	Sandy loam, fine sandy loam, sandy clay loam	SM, SC, SC-SM	A-4, A-6	0	0	97-100	95-100	55-95	15-50	10-30	3-20
	32-80	Sandy clay loam, sandy loam, sandy clay	SC, SC-SM, SM	A-6, A-4	0	0	100	95-100	60-95	20-50	20-40	3-20
OrA:												
Orangeburg------	0-8	Sandy loam	SM	A-4	0	0	98-100	95-100	75-95	20-40	0-14	NP
	8-60	Sandy clay loam, sandy loam	SC-SM, SM, CL, SC	A-4, A-6	0	0	98-100	95-100	71-96	38-58	22-40	3-19
	60-80	Sandy clay loam, sandy clay, sandy loam	SC, CL	A-4, A-6	0	0	98-100	95-100	70-97	40-65	24-46	8-21

Table 16.--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	
OrB:												
Orangeburg------	0-8	Sandy loam	SM	A-4	0	0	98-100	95-100	75-95	20-40	0-14	NP
	8-60	Sandy clay loam, sandy loam	SC-SM, SM, CL, SC	A-4, A-6	0	0	98-100	95-100	71-96	38-58	22-40	3-19
	60-80	Sandy clay loam, sandy clay, sandy loam	SC, CL	A-4, A-6	0	0	98-100	95-100	70-97	40-65	24-46	8-21
OrC:												
Orangeburg------	0-8	Sandy loam	SM	A-4	0	0	98-100	95-100	75-95	20-40	0-14	NP
	8-60	Sandy clay loam, sandy loam	SC-SM, SC, CL, SM	A-4, A-6	0	0	98-100	95-100	71-96	38-58	22-40	3-19
	60-80	Sandy clay loam, sandy clay, sandy loam	SC, CL	A-4, A-6	0	0	98-100	95-100	70-97	40-65	24-46	8-21
OuC:												
Orangeburg------	0-8	Sandy loam	SM	A-4	0	0	98-100	95-100	75-95	20-40	0-14	NP
	8-60	Sandy clay loam, sandy loam	CL, SC, SC-SM, SM	A-6, A-4	0	0	98-100	95-100	71-96	38-58	22-40	3-19
	60-80	Sandy clay loam, sandy clay, sandy loam	CL, SC	A-4, A-6	0	0	98-100	95-100	70-97	40-65	24-46	8-21
Urban land------	0-6	Variable	---	---	---	---	---	---	---	---	---	---
PoA:												
Pelham----------	0-8	Loamy fine sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	8-24	Loamy fine sand, loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	24-36	Sandy clay loam, sandy loam, fine sandy loam	SM, SC-SM, SC	A-2, A-4, A-6	0	0	100	95-100	65-100	27-50	15-30	2-20
	36-80	Sandy clay loam, sandy loam, fine sandy loam	SC, SC-SM, SM	A-2, A-4, A-6	0	0	100	95-100	65-100	27-50	15-30	2-20
Ocilla----------	0-6	Loamy fine sand	SM	A-2	0	0	100	95-100	75-100	8-35	0-14	NP
	6-24	Loamy fine sand, loamy sand	SM	A-2	0	0	100	95-100	75-100	8-35	0-14	NP
	24-60	Sandy clay loam, fine sandy loam	SC, SM, SC-SM	A-4, A-6	0	0	100	95-100	80-100	20-55	20-40	2-20
	60-80	Sandy clay loam, sandy clay, sandy loam	SM, SC, CL, SC-SM	A-4, A-6	0	0	100	95-100	80-100	20-50	20-45	7-20
Pt:												
Pits------------	0-60	Variable	---	---	---	---	---	---	---	---	---	---

Table 16.--Engineering Properties--Continued

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*	
RbA:												
Rains-----------	0-4	Fine sandy loam	ML, CL-ML, SM	A-4	0	0	95-100	90-100	60-85	40-60	0-20	NP-5
	4-8	Fine sandy loam, loamy fine sand	CL-ML, ML, SM	A-4, A-2	0	0	95-100	90-100	60-85	40-60	0-20	NP-5
	8-35	Sandy clay loam, clay loam	SC, CL	A-6, A-4	0	0	98-100	95-100	55-98	30-70	18-40	4-20
	35-80	Sandy clay, sandy clay loam, clay loam	SC, CL	A-7, A-4, A-6	0	0	98-100	95-100	60-98	36-72	18-45	4-28
Bethera---------	0-8	Loam	ML, SM	A-4	0	0	100	98-100	70-85	40-60	0-26	NP-6
	8-80	Clay, clay loam, sandy clay	CL, MH, CH	A-7, A-6	0	0	100	98-100	93-100	55-95	37-55	12-30
ReA:												
Red Bay---------	0-8	Fine sandy loam	SM, SC-SM	A-4	0	0	100	95-100	60-85	15-45	0-20	NP-4
	8-61	Sandy clay loam	SC-SM, SC	A-4, A-6	0	0	100	95-100	70-90	24-50	18-40	4-16
	61-83	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4	0	0	100	95-100	60-85	15-50	0-35	NP-10
ReB:												
Red Bay---------	0-8	Fine sandy loam	SC-SM, SM	A-4	0	0	100	95-100	60-85	15-45	0-20	NP-4
	8-61	Sandy clay loam	SC, SC-SM	A-6, A-4	0	0	100	95-100	70-90	24-50	18-40	4-16
	61-83	Sandy loam, sandy clay loam	SC, SC-SM, SM	A-4	0	0	100	95-100	60-85	15-50	0-35	NP-10
SmD:												
Smithdale-------	0-6	Sandy loam	SM, SC-SM	A-4	0	0	100	85-100	60-95	28-49	0-20	NP-5
	6-11	Sandy loam, fine sandy loam	SC-SM, SM	A-4	0	0	100	85-100	60-95	28-49	0-20	NP-5
	11-41	Sandy clay loam, clay loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	85-100	80-96	45-75	23-38	7-16
	41-72	Sandy loam, sandy clay loam	CL, SM, SC	A-4, A-6	0	0	100	85-100	65-95	36-70	0-30	NP-10
SpC2:												
Springhill------	0-6	Sandy loam	SM	A-4	0	0	98-100	95-100	70-96	25-35	0-30	NP-4
	6-50	Sandy clay loam, sandy loam	SC-SM, SC, CL	A-4, A-6	0	0	98-100	95-100	70-96	40-65	22-46	8-21
	50-80	Sandy loam, loamy sand	SC-SM, SM	A-2, A-4	0	0	98-100	95-100	70-96	15-45	0-30	3-16
SpD2:												
Springhill------	0-6	Sandy loam	SM	A-4	0	0	98-100	95-100	70-96	25-35	0-30	NP-4
	6-50	Sandy clay loam, sandy loam	CL, SC, SC-SM	A-6, A-4	0	0	98-100	95-100	70-96	40-65	22-46	8-21
	50-80	Sandy loam, loamy sand	SC-SM, SM	A-4, A-2	0	0	98-100	95-100	70-96	15-45	0-30	3-16

Table 16.--Engineering Properties--Continued

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*	
StE2:												
Sumter----------	0-5	Clay loam	CL	A-6, A-7	0	0	100	100	90-100	75-95	32-50	20-30
	5-23	Clay loam, loam	CL	A-6, A-7	0	0	100	100	90-100	75-95	32-50	20-30
	23-29	Clay loam, loam, sandy clay loam	CL, SC	A-6	0	0	100	90-100	80-95	40-80	29-46	13-25
	29-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Hannon----------	0-3	Clay	CL	A-7, A-6	0	0	100	100	90-100	75-95	32-50	20-30
	3-22	Clay, silty clay	CH	A-7	0	0	100	100	95-100	90-100	55-75	35-50
	22-27	Clay loam, clay, silty clay	CH, CL	A-7	0	0	100	100	90-100	85-95	42-65	30-45
	27-80	Sandy clay loam, clay loam, loam	CL, SC	A-6	0	0	100	90-100	80-95	40-80	29-46	13-25
TaB:												
Troup-----------	0-3	Loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	3-50	Loamy fine sand, loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	50-80	Sandy clay loam, sandy loam	SC-SM, SC, SM	A-4, A-6	0	0	95-100	90-100	60-90	24-55	19-40	4-20
TaC:												
Troup-----------	0-3	Loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	3-50	Loamy fine sand, loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	50-80	Sandy clay loam, sandy loam	SC-SM, SC, SM	A-4, A-6	0	0	95-100	90-100	60-90	24-55	19-40	4-20
TaD:												
Troup-----------	0-3	Loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	3-50	Loamy fine sand, loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	50-80	Sandy clay loam, sandy loam	SC-SM, SC, SM	A-4, A-6	0	0	95-100	90-100	60-90	24-55	19-40	4-20
TgD:												
Troup-----------	0-3	Loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	3-50	Loamy fine sand, loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	50-80	Sandy clay loam, sandy loam	SC-SM, SC, SM	A-4, A-6	0	0	95-100	90-100	60-90	24-55	19-40	4-20
Alaga-----------	0-6	Loamy sand	SW-SM, SM, SP-SM	A-1, A-2	0	0	100	100	40-80	10-35	0-10	NP-4
	6-114	Loamy sand, sand	SW-SM, SP-SM, SM	A-1, A-2	0	0	100	100	50-85	10-35	0-10	NP-4

Table 16.--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	
ToE:												
Troup-----------	0-3	Loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	3-50	Loamy fine sand, loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	50-80	Sandy clay loam, sandy loam	SC-SM, SC, SM	A-4, A-6	0	0	95-100	90-100	60-90	24-55	19-40	4-20
Lucy------------	0-6	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-90	10-40	0-14	NP
	6-25	Loamy fine sand, loamy sand	SP-SM, SM	A-2	0	0	98-100	95-100	50-90	10-40	0-14	NP
	25-32	Sandy loam, fine sandy loam, sandy clay loam	SM, SC, SC-SM	A-4, A-6	0	0	97-100	95-100	55-95	15-50	10-30	3-20
	32-80	Sandy clay loam, sandy loam, sandy clay	SC, SC-SM, SM	A-6, A-4	0	0	100	95-100	60-95	20-50	20-40	3-20
Luverne---------	0-7	Sandy loam	SM, SC-SM	A-4	0	0-5	87-100	84-100	80-100	30-60	5-19	NP-13
	7-34	Sandy clay, clay, sandy clay loam	MH, CL	A-6, A-7	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	34-45	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	28-49	3-25
	45-82	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	20-49	3-25
TrD:												
Troup-----------	0-3	Loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	3-50	Loamy fine sand, loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	50-80	Sandy clay loam, sandy loam	SC-SM, SC, SM	A-4, A-6	0	0	95-100	90-100	60-90	24-55	19-40	4-20
Luverne---------	0-7	Sandy loam	SM, SC-SM	A-4	0	0-5	87-100	84-100	80-100	30-60	5-19	NP-13
	7-34	Sandy clay, clay, sandy clay loam	MH, CL	A-6, A-7	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	34-45	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	28-49	3-25
	45-82	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	20-49	3-25
TsE:												
Troup-----------	0-3	Loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	3-50	Loamy fine sand, loamy sand	SM	A-2	0	0	100	95-100	85-100	13-25	0-14	NP
	50-80	Sandy clay loam, sandy loam	SC-SM, SC, SM	A-4, A-6	0	0	95-100	90-100	60-90	24-55	19-40	4-20

Table 16.--Engineering Properties--Continued

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*	
TsE:												
Luverne---------	0-7	Sandy loam	SM, SC-SM	A-4	0	0-5	87-100	84-100	80-100	30-60	5-19	NP-13
	7-34	Sandy clay, clay, sandy clay loam	MH, CL	A-6, A-7	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	34-45	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	28-49	3-25
	45-82	Sandy loam, sandy clay loam	SC-SM, SM, SC	A-4, A-6	0	0	90-100	85-100	70-100	25-65	20-49	3-25
Smithdale-------	0-6	Sandy loam	SM, SC-SM	A-4	0	0	100	85-100	60-95	28-49	0-20	NP-5
	6-11	Sandy loam, fine sandy loam	SC-SM, SM	A-4	0	0	100	85-100	60-95	28-49	0-20	NP-5
	11-41	Sandy clay loam, clay loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	85-100	80-96	45-75	23-38	7-16
	41-72	Sandy loam, sandy clay loam	CL, SM, SC	A-4, A-6	0	0	100	85-100	65-95	36-70	0-30	NP-10
UdC:												
Udorthents------	0-80	Variable	---	---	---	---	---	---	---	---	---	---
UdE:												
Udorthents------	0-80	Variable	---	---	---	---	---	---	---	---	---	---
Ur:												
Urban land------	0-6	Variable	---	---	---	---	---	---	---	---	---	---
WmB:												
Williamsville---	0-6	Fine sand	SW-SM, SP-SM, SM	A-2	0	0	100	100	50-85	10-35	0-14	NP
	6-11	Fine sand, loamy fine sand	SM, SP-SM, SW-SM	A-2	0	0	100	100	50-85	10-35	0-14	NP
	11-42	Sandy clay, clay, clay loam	CL, MH	A-7, A-6	0	0-20	95-100	90-100	85-100	50-95	38-70	8-30
	42-60	Sandy clay loam, sandy loam	CL, SC, SC-SM, SM	A-6, A-4	0	0	98-100	95-100	71-96	38-58	22-40	3-19
	60-80	Sandy clay loam, sandy loam	CL, SC, SC-SM, SM	A-6, A-4	0	0	98-100	95-100	71-96	38-58	22-40	3-19

Table 16.--Engineering Properties--Continued

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*	
WmC:												
Williamsville---	0-6	Fine sand	SM, SP-SM, SW-SM	A-2	0	0	100	100	50-85	10-35	0-14	NP
	6-11	Fine sand, loamy fine sand	SW-SM, SM, SP-SM	A-2	0	0	100	100	50-85	10-35	0-14	NP
	11-42	Sandy clay, clay, clay loam	CL, MH	A-7, A-6	0	0-20	95-100	90-100	85-100	50-95	38-70	8-30
	42-60	Sandy clay loam, sandy loam	SC-SM, SM, CL, SC	A-6, A-4	0	0	98-100	95-100	71-96	38-58	22-40	3-19
	60-80	Sandy clay loam, sandy loam	SM, CL, SC, SC-SM	A-6, A-4	0	0	98-100	95-100	71-96	38-58	22-40	3-19

Table 17.--Physical Soil Properties

[Entries under "Erosion factors--T" apply to the entire profile. Absence of an entry indicates that data were not estimated]

Map symbol and soil name	Depth	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T
	In	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
ArC:										
Arundel-------------	0-6	6-18	1.30-1.55	14.00-42.00	0.06-0.15	0.0-2.9	0.5-1.5	.28	.28	3
	6-29	35-60	1.20-1.60	0.42-1.40	0.12-0.18	6.0-8.9	0.1-0.5	.32	.32	
	29-35	6-35	1.30-1.60	1.40-42.00	0.06-0.18	0.0-8.9	0.1-0.5	.32	.32	
	35-80	---	---	---	---	---	---	---	---	
ArE:										
Arundel-------------	0-6	6-18	1.30-1.55	14.00-42.00	0.06-0.15	0.0-2.9	0.5-1.5	.28	.28	3
	6-29	35-60	1.20-1.60	0.42-1.40	0.12-0.18	6.0-8.9	0.0-0.5	.32	.32	
	29-35	6-35	1.30-1.60	1.40-42.00	0.06-0.18	0.0-8.9	0.1-0.5	.32	.32	
	35-80	---	---	---	---	---	---	---	---	
BbA:										
Bibb----------------	0-4	2-18	1.50-1.70	4.00-14.00	0.12-0.18	0.0-2.9	1.0-5.0	.20	.20	5
	4-50	8-18	1.50-1.70	4.00-14.00	0.10-0.20	0.0-2.9	0.5-3.0	.28	.28	
	50-80	2-18	1.45-1.75	4.00-42.00	0.10-0.20	0.0-2.9	0.5-1.0	.28	.28	
Iuka----------------	0-9	12-30	1.20-1.45	4.00-42.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	5
	9-49	8-18	1.20-1.50	4.00-42.00	0.10-0.20	0.0-2.9	0.1-2.0	.28	.28	
	49-80	10-35	1.30-1.50	4.00-42.00	0.14-0.18	0.0-2.9	0.1-2.0	.32	.32	
BcB:										
Blanton-------------	0-6	6-12	1.50-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-2.0	.10	.10	5
	6-46	6-12	1.50-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-1.0	.10	.10	
	46-56	12-30	1.60-1.70	1.40-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.28	.28	
	56-80	12-30	1.60-1.70	1.40-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.28	.28	
BcC:										
Blanton-------------	0-6	6-12	1.50-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-2.0	.10	.10	5
	6-46	6-12	1.50-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-1.0	.10	.10	
	46-56	12-30	1.60-1.70	1.40-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.28	.28	
	56-80	12-30	1.60-1.70	1.40-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.28	.28	
BfB:										
Bonifay-------------	0-9	6-12	1.50-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-2.0	.10	.10	5
	9-60	6-12	1.50-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-1.0	.10	.10	
	60-82	20-45	1.60-1.70	4.00-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.24	.24	
BfC:										
Bonifay-------------	0-9	6-12	1.50-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-2.0	.10	.10	5
	9-60	6-12	1.50-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-1.0	.10	.10	
	60-82	20-45	1.60-1.70	4.00-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.24	.24	
BoB:										
Bonneau-------------	0-13	5-15	1.30-1.70	42.00-141.00	0.05-0.11	0.0-2.9	0.5-2.0	.10	.10	5
	13-28	5-15	1.30-1.70	42.00-141.00	0.05-0.11	0.0-2.9	0.2-0.8	.10	.10	
	28-45	13-35	1.40-1.60	4.00-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.24	.24	
	45-85	15-40	1.40-1.60	4.00-14.00	0.10-0.18	0.0-2.9	0.1-0.5	.24	.24	
BrC:										
Brantley------------	0-3	2-12	1.40-1.70	14.00-42.00	0.06-0.12	0.0-2.9	0.5-2.0	.24	.24	5
	3-10	2-12	1.40-1.70	14.00-42.00	0.06-0.12	0.0-2.9	0.2-1.0	.24	.24	
	10-48	30-55	1.35-1.55	0.42-4.00	0.12-0.20	3.0-5.9	0.1-0.5	.32	.32	
	48-80	2-12	1.40-1.70	14.00-42.00	0.06-0.12	0.0-2.9	0.1-0.5	.15	.15	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	µm/sec	In/in	Pct	Pct			
BrE:										
Brantley------------	0-3	2-12	1.40-1.70	14.00-42.00	0.06-0.12	0.0-2.9	0.5-2.0	.24	.24	5
	3-10	2-12	1.40-1.70	14.00-42.00	0.06-0.12	0.0-2.9	0.2-1.0	.24	.24	
	10-48	30-55	1.35-1.55	0.42-4.00	0.12-0.20	3.0-5.9	0.1-0.5	.32	.32	
	48-80	2-12	1.40-1.70	14.00-42.00	0.06-0.12	0.0-2.9	0.1-0.5	.15	.15	
BrF:										
Brantley------------	0-3	2-12	1.40-1.70	14.00-42.00	0.06-0.12	0.0-2.9	0.5-2.0	.24	.24	5
	3-10	2-12	1.40-1.70	14.00-42.00	0.06-0.12	0.0-2.9	0.2-1.0	.24	.24	
	10-48	30-55	1.35-1.55	0.42-4.00	0.12-0.20	3.0-5.9	0.1-0.5	.32	.32	
	48-80	2-12	1.40-1.70	14.00-42.00	0.06-0.12	0.0-2.9	0.1-0.5	.15	.15	
CaA:										
Casemore------------	0-3	8-14	1.50-1.55	4.00-14.00	0.10-0.15	0.0-2.9	1.5-2.5	.28	.28	5
	3-7	8-14	1.50-1.55	4.00-14.00	0.10-0.15	0.0-2.9	1.5-2.5	.28	.28	
	7-30	20-35	1.60-1.70	1.40-4.00	0.10-0.18	0.0-2.9	0.5-1.2	.24	.24	
	30-80	20-35	1.60-1.70	1.40-4.00	0.10-0.18	0.0-2.9	0.1-0.5	.24	.24	
CmB:										
Compass-------------	0-10	6-12	1.45-1.65	42.00-141.00	0.05-0.10	0.0-2.9	0.5-2.0	.15	.15	5
	10-15	10-18	1.40-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.2-1.0	.20	.20	
	15-37	12-20	1.55-1.75	4.00-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.28	.28	
	37-80	15-35	1.55-1.75	4.00-14.00	0.10-0.18	0.0-2.9	0.1-0.5	.28	.28	
CoC:										
Cowarts-------------	0-4	10-18	1.30-1.70	14.00-42.00	0.08-0.13	0.0-2.9	0.5-2.0	.24	.24	4
	4-10	5-15	1.30-1.70	14.00-42.00	0.08-0.13	0.0-2.9	0.5-1.0	.24	.24	
	10-36	10-35	1.30-1.50	4.00-14.00	0.10-0.16	0.0-2.9	0.1-1.0	.28	.28	
	36-80	10-30	1.65-1.80	0.42-14.00	0.10-0.14	0.0-2.9	0.1-0.5	.24	.24	
CtE:										
Cowarts-------------	0-4	10-18	1.30-1.70	14.00-42.00	0.08-0.13	0.0-2.9	0.5-2.0	.24	.24	4
	4-10	5-15	1.30-1.70	14.00-42.00	0.08-0.13	0.0-2.9	0.5-1.0	.24	.24	
	10-36	10-35	1.30-1.50	4.00-14.00	0.10-0.16	0.0-2.9	0.1-1.0	.28	.28	
	36-80	10-30	1.65-1.80	0.42-14.00	0.10-0.14	0.0-2.9	0.1-0.5	.24	.24	
Troup---------------	0-3	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-1.5	.10	.10	5
	3-50	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-0.5	.10	.10	
	50-80	15-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.20	.20	
DoA:										
Dothan--------------	0-9	10-18	1.30-1.70	14.00-42.00	0.08-0.13	0.0-2.9	0.5-2.0	.24	.24	5
	9-35	18-35	1.40-1.60	4.00-14.00	0.12-0.16	0.0-2.9	0.1-1.0	.28	.28	
	35-80	18-40	1.45-1.70	1.40-4.00	0.08-0.12	0.0-2.9	0.1-0.5	.28	.28	
DoB:										
Dothan--------------	0-9	10-18	1.30-1.70	14.00-42.00	0.08-0.13	0.0-2.9	0.5-2.0	.24	.24	5
	9-35	18-35	1.40-1.60	4.00-14.00	0.12-0.16	0.0-2.9	0.1-1.0	.28	.28	
	35-80	18-40	1.45-1.70	1.40-4.00	0.08-0.12	0.0-2.9	0.1-0.5	.28	.28	
DoC:										
Dothan--------------	0-9	10-18	1.30-1.70	14.00-42.00	0.08-0.13	0.0-2.9	0.5-2.0	.24	.24	5
	9-35	18-35	1.40-1.60	4.00-14.00	0.12-0.16	0.0-2.9	0.1-1.0	.28	.28	
	35-80	18-40	1.45-1.70	1.40-4.00	0.08-0.12	0.0-2.9	0.1-0.5	.28	.28	
EuA:										
Eunola--------------	0-6	7-15	1.30-1.50	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.20	.20	5
	6-10	10-20	1.35-1.65	14.00-42.00	0.10-0.14	0.0-2.9	0.1-1.0	.20	.20	
	10-46	18-35	1.35-1.65	4.00-14.00	0.12-0.17	0.0-2.9	0.1-1.0	.28	.28	
	46-53	10-20	1.35-1.65	14.00-42.00	0.10-0.14	0.0-2.9	0.1-0.5	.28	.28	
	53-80	10-30	1.35-1.65	4.00-42.00	0.10-0.17	0.0-2.9	0.1-0.5	.28	.28	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	µm/sec	In/in	Pct	Pct			
FaB:										
Faceville-----------	0-8	10-20	1.40-1.60	14.00-42.00	0.10-0.13	0.0-2.9	0.5-2.0	.28	.28	5
	8-32	30-55	1.35-1.60	4.00-28.00	0.12-0.18	0.0-2.9	0.1-0.5	.37	.37	
	32-80	35-55	1.25-1.60	4.00-28.00	0.12-0.18	0.0-2.9	0.1-0.5	.37	.37	
FlA:										
Fluvaquents---------	0-6	2-18	1.25-1.35	14.00-42.00	0.10-0.15	0.0-2.9	3.0-10	.20	.20	5
	6-80	8-18	---	4.00-42.00	0.10-0.20	0.0-2.9	0.5-10	.28	.28	
FqB:										
Fuquay--------------	0-4	2-10	1.60-1.70	42.00-141.00	0.04-0.09	0.0-2.9	0.5-2.0	.15	.15	5
	4-30	2-10	1.60-1.70	42.00-141.00	0.04-0.09	0.0-2.9	0.1-0.8	.15	.15	
	30-53	10-35	1.40-1.60	4.00-28.00	0.12-0.15	0.0-2.9	0.1-0.5	.20	.20	
	53-80	15-40	1.40-1.60	1.40-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.20	.20	
FqC:										
Fuquay--------------	0-4	2-10	1.60-1.70	42.00-141.00	0.04-0.09	0.0-2.9	0.5-2.0	.15	.15	5
	4-30	2-10	1.60-1.70	42.00-141.00	0.04-0.09	0.0-2.9	0.1-0.8	.15	.15	
	30-53	10-35	1.40-1.60	4.00-28.00	0.12-0.15	0.0-2.9	0.1-0.5	.20	.20	
	53-80	15-40	1.40-1.60	1.40-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.20	.20	
GrA:										
Greenville----------	0-8	5-20	1.30-1.65	4.00-42.00	0.07-0.14	0.0-2.9	0.5-2.0	.24	.24	5
	8-80	35-55	1.35-1.55	4.00-28.00	0.14-0.18	0.0-2.9	0.1-0.5	.37	.37	
GrB:										
Greenville----------	0-8	5-20	1.30-1.65	4.00-42.00	0.07-0.14	0.0-2.9	0.5-2.0	.24	.24	5
	8-80	35-55	1.35-1.55	4.00-28.00	0.14-0.18	0.0-2.9	0.1-0.5	.37	.37	
GsC2:										
Greenville----------	0-8	18-30	1.30-1.65	4.00-42.00	0.07-0.14	0.0-2.9	0.5-2.0	.24	.24	5
	8-80	35-55	1.35-1.55	4.00-28.00	0.14-0.18	0.0-2.9	0.1-0.5	.37	.37	
GtD3:										
Greenville----------	0-3	25-35	1.40-1.55	4.00-28.00	0.15-0.17	0.0-2.9	0.5-2.0	.28	.28	5
	3-72	35-55	1.35-1.55	4.00-28.00	0.14-0.18	0.0-2.9	0.1-0.5	.37	.37	
HaC2:										
Halso---------------	0-5	6-20	1.30-1.60	4.00-28.00	0.11-0.15	0.0-2.9	0.5-2.0	.28	.28	4
	5-43	40-60	1.10-1.40	0.01-0.42	0.12-0.18	6.0-8.9	0.1-1.0	.32	.32	
	43-52	35-55	1.10-1.40	0.01-0.42	0.05-0.15	6.0-8.9	0.1-0.5	.32	.32	
	52-80	---	---	0.00-0.01	---	---	---	---	---	
HaE2:										
Halso---------------	0-5	6-20	1.30-1.60	4.00-28.00	0.11-0.15	0.0-2.9	0.5-2.0	.28	.28	4
	5-43	40-60	1.10-1.40	0.01-0.42	0.12-0.18	6.0-8.9	0.1-1.0	.32	.32	
	43-52	35-55	1.10-1.40	0.01-0.42	0.05-0.15	6.0-8.9	0.1-0.5	.32	.32	
	52-80	---	---	0.00-0.01	---	---	---	---	---	
HsC2:										
Hannon--------------	0-3	40-55	1.10-1.40	0.42-1.40	0.13-0.17	6.0-8.9	0.5-2.0	.32	.32	5
	3-22	40-75	1.10-1.30	0.01-0.42	0.05-0.10	9.0-25.0	0.2-1.0	.32	.32	
	22-27	30-60	1.10-1.40	0.01-0.42	0.08-0.12	6.0-25.0	0.1-0.5	.32	.32	
	27-80	20-35	1.60-1.70	1.40-4.00	0.10-0.18	3.0-8.9	0.1-0.5	.28	.28	
Sumter--------------	0-5	27-40	1.10-1.40	1.40-4.00	0.13-0.17	3.0-5.9	1.0-4.0	.32	.32	3
	5-23	20-40	1.10-1.40	1.40-4.00	0.13-0.17	3.0-5.9	0.1-2.0	.32	.32	
	23-29	20-35	1.50-1.70	0.42-4.00	0.10-0.18	0.0-2.9	0.1-0.5	.20	.20	
	29-80	---	---	0.01-0.42	---	---	---	---	---	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors		
								Kw	Kf	T
	In	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
ImA:										
Iuka----------------	0-9	8-20	1.20-1.45	14.00-42.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	5
	9-49	8-25	1.20-1.50	14.00-42.00	0.10-0.20	0.0-2.9	0.5-2.0	.28	.28	
	49-80	8-30	1.30-1.50	14.00-42.00	0.14-0.18	0.0-2.9	0.1-2.0	.28	.28	
Marietta------------	0-3	5-25	1.50-1.55	14.00-42.00	0.14-0.18	0.0-2.9	1.0-3.0	.28	.28	5
	3-32	18-35	1.40-1.55	4.00-28.00	0.14-0.20	0.0-2.9	0.2-2.0	.28	.28	
	32-42	10-35	1.40-1.55	4.00-28.00	0.10-0.20	0.0-2.9	0.1-1.5	.28	.28	
	42-80	10-30	1.50-1.70	4.00-42.00	0.05-0.08	0.0-2.9	0.1-1.0	.20	.20	
LaA:										
Leeper--------------	0-3	18-30	1.20-1.45	4.00-14.00	0.10-0.18	0.0-2.9	1.0-3.0	.28	.28	5
	3-12	35-60	1.40-1.60	0.01-0.42	0.18-0.20	6.0-8.9	0.5-2.0	.32	.32	
	12-62	35-60	1.40-1.60	0.01-0.42	0.18-0.20	6.0-8.9	0.2-1.0	.32	.32	
	62-80	35-60	1.40-1.60	0.01-0.42	0.18-0.20	6.0-8.9	0.2-1.0	.32	.32	
Marietta------------	0-3	5-25	1.50-1.55	14.00-42.00	0.14-0.18	0.0-2.9	1.0-3.0	.28	.28	5
	3-32	18-35	1.40-1.55	4.00-28.00	0.14-0.20	0.0-2.9	0.2-2.0	.28	.28	
	32-42	10-35	1.40-1.55	4.00-28.00	0.10-0.20	0.0-2.9	0.1-1.5	.28	.28	
	42-80	10-30	1.50-1.70	4.00-42.00	0.05-0.08	0.0-2.9	0.1-1.0	.20	.20	
LcB:										
Lucy----------------	0-6	1-12	1.30-1.70	42.00-141.00	0.08-0.12	0.0-2.9	0.5-1.5	.10	.10	5
	6-25	1-12	1.30-1.70	42.00-141.00	0.08-0.12	0.0-2.9	0.1-0.5	.10	.10	
	25-32	10-30	1.40-1.60	14.00-42.00	0.10-0.12	0.0-2.9	0.1-0.5	.24	.24	
	32-80	15-40	1.40-1.60	4.00-14.00	0.12-0.14	0.0-2.9	0.1-0.5	.28	.28	
LcC:										
Lucy----------------	0-6	1-12	1.30-1.70	42.00-141.00	0.08-0.12	0.0-2.9	0.5-1.5	.10	.10	5
	6-25	1-12	1.30-1.70	42.00-141.00	0.08-0.12	0.0-2.9	0.1-0.5	.10	.10	
	25-32	10-30	1.40-1.60	14.00-42.00	0.10-0.12	0.0-2.9	0.1-0.5	.24	.24	
	32-80	15-40	1.40-1.60	4.00-14.00	0.12-0.14	0.0-2.9	0.1-0.5	.28	.28	
LvB:										
Luverne-------------	0-7	7-20	1.35-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	7-34	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.2-1.0	.28	.28	
	34-45	10-35	1.35-1.65	1.40-14.00	0.05-0.18	0.0-2.9	0.1-0.5	.28	.28	
	45-82	10-28	1.35-1.65	1.40-28.00	0.05-0.10	0.0-2.9	0.1-0.2	.28	.28	
LvC:										
Luverne-------------	0-7	7-20	1.35-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	7-34	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.2-1.0	.28	.28	
	34-45	10-35	1.35-1.65	1.40-14.00	0.05-0.18	0.0-2.9	0.1-0.5	.28	.28	
	45-82	10-28	1.35-1.65	1.40-28.00	0.05-0.10	0.0-2.9	0.1-0.2	.28	.28	
LvD:										
Luverne-------------	0-7	7-20	1.35-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	7-34	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.2-1.0	.28	.28	
	34-45	10-35	1.35-1.65	1.40-14.00	0.05-0.18	0.0-2.9	0.1-0.5	.28	.28	
	45-82	10-28	1.35-1.65	1.40-28.00	0.05-0.10	0.0-2.9	0.1-0.2	.28	.28	
LvE:										
Luverne-------------	0-7	7-20	1.35-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	7-34	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.2-1.0	.28	.28	
	34-45	10-35	1.35-1.65	1.40-14.00	0.05-0.18	0.0-2.9	0.1-0.5	.28	.28	
	45-82	10-28	1.35-1.65	1.40-28.00	0.05-0.10	0.0-2.9	0.1-0.2	.28	.28	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T
	In	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
MbB:										
Malbis	0-10	5-18	1.30-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	10-15	8-18	1.30-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.0	.24	.24	
	15-28	18-35	1.30-1.70	4.00-14.00	0.12-0.20	0.0-2.9	0.1-0.5	.28	.28	
	28-80	20-35	1.45-1.70	1.40-4.00	0.06-0.12	0.0-2.9	0.1-0.2	.28	.28	
MbC:										
Malbis	0-10	5-18	1.30-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	10-15	8-18	1.30-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.0	.24	.24	
	15-28	18-35	1.30-1.70	4.00-14.00	0.12-0.20	0.0-2.9	0.1-0.5	.28	.28	
	28-80	20-35	1.45-1.70	1.40-4.00	0.06-0.12	0.0-2.9	0.1-0.2	.28	.28	
MKA:										
Mantachie	0-6	15-30	1.50-1.60	4.00-14.00	0.16-0.20	0.0-2.9	1.0-3.0	.28	.28	5
	6-29	5-30	1.45-1.75	4.00-14.00	0.10-0.20	0.0-2.9	0.5-1.0	.28	.28	
	29-62	10-35	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-1.0	.24	.24	
	62-80	10-35	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
Kinston	0-5	8-20	1.50-1.60	4.00-14.00	0.16-0.20	0.0-2.9	1.0-5.0	.28	.28	5
	5-30	18-35	1.30-1.50	4.00-14.00	0.14-0.18	0.0-2.9	0.5-3.0	.32	.32	
	30-50	18-35	1.30-1.50	4.00-14.00	0.14-0.18	0.0-2.9	0.1-3.0	.32	.32	
	50-80	18-35	1.30-1.50	1.40-14.00	0.14-0.18	0.0-2.9	0.1-3.0	.32	.32	
Iuka	0-9	8-20	1.20-1.45	14.00-42.00	0.10-0.18	0.0-2.9	1.0-3.0	.24	.24	5
	9-49	8-25	1.20-1.50	14.00-42.00	0.10-0.20	0.0-2.9	0.5-2.0	.28	.28	
	49-80	8-30	1.30-1.50	14.00-42.00	0.14-0.18	0.0-2.9	0.1-2.0	.28	.28	
NsE:										
Nankin	0-3	10-18	1.30-1.70	14.00-42.00	0.08-0.13	0.0-2.9	0.5-2.0	.24	.24	4
	3-42	33-50	1.30-1.70	1.40-4.00	0.11-0.16	0.0-2.9	0.1-0.5	.32	.32	
	42-60	20-35	1.60-1.70	4.00-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.28	.28	
	60-80	10-35	1.55-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.24	.24	
Springhill	0-6	7-18	1.30-1.50	14.00-42.00	0.07-0.12	0.0-2.9	0.5-2.0	.20	.20	5
	6-50	15-35	1.40-1.60	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
	50-80	5-18	1.40-1.65	14.00-42.00	0.07-0.12	0.0-2.9	0.1-0.5	.20	.20	
Lucy	0-6	1-12	1.30-1.70	42.00-141.00	0.08-0.12	0.0-2.9	0.5-1.5	.10	.10	5
	6-25	1-12	1.30-1.70	42.00-141.00	0.08-0.12	0.0-2.9	0.1-0.5	.10	.10	
	25-32	10-30	1.40-1.60	14.00-42.00	0.10-0.12	0.0-2.9	0.1-0.5	.24	.24	
	32-80	15-40	1.40-1.60	4.00-14.00	0.12-0.14	0.0-2.9	0.1-0.5	.28	.28	
OrA:										
Orangeburg	0-8	7-15	1.30-1.50	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.20	.20	5
	8-60	15-40	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
	60-80	15-40	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
OrB:										
Orangeburg	0-8	7-15	1.30-1.50	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.20	.20	5
	8-60	15-40	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
	60-80	15-40	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
OrC:										
Orangeburg	0-8	7-15	1.30-1.50	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.20	.20	5
	8-60	15-40	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
	60-80	15-40	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
OuC:										
Orangeburg	0-8	7-15	1.30-1.50	14.00-42.00	0.07-0.10	0.0-2.9	0.5-2.0	.20	.20	5
	8-60	15-40	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
	60-80	15-40	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T
	In	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
OuC:										
Urban land----------	0-6	---	---	---	---	---	---	---	---	---
PoA:										
Pelham--------------	0-8	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-3.0	.10	.10	5
	8-24	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-1.0	.10	.10	
	24-36	15-30	1.30-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.24	.24	
	30-80	15-30	1.30-1.60	1.40-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.24	.24	
Ocilla--------------	0-6	4-10	1.45-1.65	14.00-141.00	0.05-0.08	0.0-2.9	1.0-2.0	.10	.10	5
	6-24	4-10	1.45-1.65	14.00-141.00	0.05-0.08	0.0-2.9	0.5-1.0	.10	.10	
	24-60	15-35	1.55-1.70	4.00-14.00	0.09-0.12	0.0-2.9	0.1-0.5	.24	.24	
	60-80	15-40	1.55-1.70	1.40-14.00	0.09-0.12	0.0-2.9	0.1-0.5	.24	.24	
Pt:										
Pits----------------	0-60	---	---	0.01-0.42	---	---	---	---	---	---
RbA:										
Rains---------------	0-4	8-18	1.50-1.60	4.00-14.00	0.16-0.20	0.0-2.9	1.0-5.0	.28	.28	5
	4-8	8-18	1.50-1.60	4.00-14.00	0.16-0.20	0.0-2.9	1.0-3.0	.28	.28	
	8-35	18-35	1.30-1.50	4.00-14.00	0.12-0.16	0.0-2.9	0.1-1.0	.24	.24	
	35-80	20-45	1.30-1.50	1.40-4.00	0.12-0.16	0.0-2.9	0.1-0.5	.24	.24	
Bethera-------------	0-8	10-25	1.30-1.50	4.00-14.00	0.11-0.16	0.0-2.9	1.0-6.0	.28	.28	5
	8-80	35-55	1.10-1.50	0.42-4.00	0.14-0.18	3.0-5.9	0.5-2.0	.37	.37	
ReA:										
Red Bay-------------	0-8	7-18	1.40-1.55	14.00-42.00	0.07-0.14	0.0-2.9	0.5-2.0	.20	.20	5
	8-61	18-35	1.30-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.1-0.5	.24	.24	
	61-83	10-25	1.30-1.60	4.00-42.00	0.10-0.14	0.0-2.9	0.1-0.5	.24	.24	
ReB:										
Red Bay-------------	0-8	7-18	1.40-1.55	14.00-42.00	0.07-0.14	0.0-2.9	0.5-2.0	.20	.20	5
	8-61	18-35	1.30-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.1-0.5	.24	.24	
	61-83	10-25	1.30-1.60	4.00-42.00	0.10-0.14	0.0-2.9	0.1-0.5	.24	.24	
SmD:										
Smithdale-----------	0-6	2-15	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.5-2.0	.28	.28	5
	6-11	5-18	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.5-1.0	.28	.28	
	11-41	18-33	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.1-1.0	.24	.24	
	41-72	12-27	1.40-1.55	14.00-42.00	0.14-0.16	0.0-2.9	0.1-0.5	.24	.24	
SpC2:										
Springhill----------	0-6	7-18	1.30-1.50	14.00-42.00	0.07-0.12	0.0-2.9	0.5-2.0	.20	.20	5
	6-50	15-35	1.40-1.60	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
	50-80	5-18	1.40-1.65	14.00-42.00	0.07-0.12	0.0-2.9	0.1-0.5	.20	.20	
SpD2:										
Springhill----------	0-6	7-18	1.30-1.50	14.00-42.00	0.07-0.12	0.0-2.9	0.5-2.0	.20	.20	5
	6-50	15-35	1.40-1.60	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
	50-80	5-18	1.40-1.65	14.00-42.00	0.07-0.12	0.0-2.9	0.1-0.5	.20	.20	
StE2:										
Sumter--------------	0-5	27-40	1.10-1.40	1.40-4.00	0.13-0.17	3.0-5.9	1.0-4.0	.32	.32	3
	5-23	20-40	1.10-1.40	1.40-4.00	0.13-0.17	3.0-5.9	0.1-2.0	.32	.32	
	23-29	20-35	1.50-1.70	0.42-4.00	0.10-0.18	0.0-2.9	0.1-0.5	.20	.20	
	29-80	---	---	0.01-0.42	---	---	---	---	---	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T
	In	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
StE2:										
Hannon--------------	0-3	40-55	1.10-1.40	0.42-1.40	0.13-0.17	6.0-8.9	0.5-2.0	.32	.32	5
	3-22	40-75	1.10-1.30	0.01-0.42	0.05-0.10	9.0-25.0	0.2-1.0	.32	.32	
	22-27	30-60	1.10-1.40	0.01-0.42	0.08-0.12	6.0-25.0	0.1-0.5	.32	.32	
	27-80	20-35	1.60-1.70	1.40-4.00	0.10-0.18	3.0-8.9	0.1-0.5	.28	.28	
TaB:										
Troup---------------	0-3	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-1.5	.10	.10	5
	3-50	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-0.5	.10	.10	
	50-80	15-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.20	.20	
TaC:										
Troup---------------	0-3	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-1.5	.10	.10	5
	3-50	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-0.5	.10	.10	
	50-80	15-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.20	.20	
TaD:										
Troup---------------	0-3	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-1.5	.10	.10	5
	3-50	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-0.5	.10	.10	
	50-80	15-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.20	.20	
TgD:										
Troup---------------	0-3	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-1.5	.10	.10	5
	3-50	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-0.5	.10	.10	
	50-80	15-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.20	.20	
Alaga---------------	0-6	2-10	1.60-1.75	42.00-141.00	0.05-0.09	0.0-2.9	0.2-1.0	.10	.10	5
	6-11	2-10	1.60-1.75	42.00-141.00	0.05-0.09	0.0-2.9	0.1-0.5	.10	.10	
ToE:										
Troup---------------	0-3	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-1.5	.10	.10	5
	3-50	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-0.5	.10	.10	
	50-80	15-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.20	.20	
Lucy----------------	0-6	1-12	1.30-1.70	42.00-141.00	0.08-0.12	0.0-2.9	0.5-1.5	.10	.10	5
	6-25	1-12	1.30-1.70	42.00-141.00	0.08-0.12	0.0-2.9	0.1-0.5	.10	.10	
	25-32	10-30	1.40-1.60	14.00-42.00	0.10-0.12	0.0-2.9	0.1-0.5	.24	.24	
	32-80	15-40	1.40-1.60	4.00-14.00	0.12-0.14	0.0-2.9	0.1-0.5	.28	.28	
Luverne-------------	0-7	7-20	1.35-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	7-34	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.2-1.0	.28	.28	
	34-45	10-35	1.35-1.65	1.40-14.00	0.05-0.18	0.0-2.9	0.1-0.5	.28	.28	
	45-82	10-28	1.35-1.65	1.40-28.00	0.05-0.10	0.0-2.9	0.1-0.2	.28	.28	
TrD:										
Troup---------------	0-3	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-1.5	.10	.10	5
	3-50	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-0.5	.10	.10	
	50-80	15-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.20	.20	
Luverne-------------	0-7	7-20	1.35-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	7-34	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.2-1.0	.28	.28	
	34-45	10-35	1.35-1.65	1.40-14.00	0.05-0.18	0.0-2.9	0.1-0.5	.28	.28	
	45-82	10-28	1.35-1.65	1.40-28.00	0.05-0.10	0.0-2.9	0.1-0.2	.28	.28	
TsE:										
Troup---------------	0-3	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.5-1.5	.10	.10	5
	3-50	5-13	1.35-1.60	42.00-141.00	0.05-0.10	0.0-2.9	0.1-0.5	.10	.10	
	50-80	15-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.1-0.5	.20	.20	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T
	In	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
TsE:										
Luverne-------------	0-7	7-20	1.35-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	7-34	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.2-1.0	.28	.28	
	34-45	10-35	1.35-1.65	1.40-14.00	0.05-0.18	0.0-2.9	0.1-0.5	.28	.28	
	45-82	10-28	1.35-1.65	1.40-28.00	0.05-0.10	0.0-2.9	0.1-0.2	.28	.28	
Smithdale-----------	0-6	2-15	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.5-2.0	.28	.28	5
	6-11	5-18	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.5-1.0	.28	.28	
	11-41	18-33	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.1-1.0	.24	.24	
	41-72	12-27	1.40-1.55	14.00-42.00	0.14-0.16	0.0-2.9	0.1-0.5	.24	.24	
UdC:										
Udorthents----------	0-80	---	---	---	---	---	---	---	---	5
UdE:										
Udorthents----------	0-80	---	---	---	---	---	---	---	---	5
Ur:										
Urban land----------	0-6	---	---	---	---	---	---	---	---	---
WmB:										
Williamsville-------	0-6	2-10	1.60-1.75	42.00-141.00	0.05-0.09	0.0-2.9	0.1-1.0	.10	.10	5
	6-11	2-12	1.60-1.75	42.00-141.00	0.05-0.09	0.0-2.9	0.1-0.5	.10	.10	
	11-42	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.1-0.5	.28	.28	
	42-60	15-35	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
	60-80	12-30	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
WmC:										
Williamsville-------	0-6	2-10	1.60-1.75	42.00-141.00	0.05-0.09	0.0-2.9	0.1-1.0	.10	.10	5
	6-11	2-12	1.60-1.75	42.00-141.00	0.05-0.09	0.0-2.9	0.1-0.5	.10	.10	
	11-42	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.1-0.5	.28	.28	
	42-60	15-35	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	
	60-80	12-30	1.60-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.1-0.5	.24	.24	

Table 18.--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	Calcium carbon- ate
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*
ArC:					
Arundel--------------	0-6	---	2.0-12	3.5-5.5	0
	6-29	---	13-36	3.5-5.5	0
	29-35	---	2.0-22	3.5-5.5	0
	35-80	---	---	---	---
ArE:					
Arundel--------------	0-6	---	2.0-12	3.5-5.5	0
	6-29	---	13-36	3.5-5.5	0
	29-35	---	2.0-22	3.5-5.5	0
	35-80	---	---	---	---
BbA:					
Bibb-----------------	0-4	---	4.0-7.0	3.6-5.5	0
	4-50	---	1.0-6.0	3.6-5.5	0
	50-80	---	4.0-10	3.6-5.5	0
Iuka-----------------	0-9	---	2.0-10	3.6-5.5	0
	9-49	---	2.0-7.0	3.6-5.5	0
	49-80	---	3.0-10	3.6-5.5	0
BcB:					
Blanton--------------	0-6	---	0.5-5.0	4.5-5.5	0
	6-46	---	0.5-5.0	4.5-5.5	0
	46-56	---	3.0-15	4.5-5.5	0
	56-80	---	3.0-15	4.5-5.5	0
BcC:					
Blanton--------------	0-6	---	0.5-5.0	4.5-5.5	0
	6-46	---	0.5-5.0	4.5-5.5	0
	46-56	---	3.0-15	4.5-5.5	0
	56-80	---	3.0-15	4.5-5.5	0
BfB:					
Bonifay--------------	0-9	---	0.5-5.0	4.5-5.5	0
	9-60	---	0.5-5.0	4.5-5.5	0
	60-82	---	3.0-15	4.5-5.5	0
BfC:					
Bonifay--------------	0-9	---	0.5-5.0	4.5-5.5	0
	9-60	---	0.5-5.0	4.5-5.5	0
	60-82	---	3.0-15	4.5-5.5	0
BoB:					
Bonneau--------------	0-13	---	0.5-5.0	4.5-5.5	0
	13-28	---	0.5-5.0	4.5-5.5	0
	28-45	---	3.0-15	3.6-5.5	0
	45-85	---	3.0-15	3.6-5.5	0
BrC:					
Brantley-------------	0-3	---	0.5-4.0	4.5-5.5	0
	3-10	---	0.5-4.0	4.5-5.5	0
	10-48	---	10-35	4.5-5.5	0
	48-80	---	0.5-5.0	4.5-5.5	0

Table 18.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate
	In	meq/100 g	meq/100 g	pH	Pct
BrE:					
Brantley-------------	0-3	---	0.5-4.0	4.5-5.5	0
	3-10	---	0.5-4.0	4.5-5.5	0
	10-48	---	10-35	4.5-5.5	0
	48-80	---	0.5-5.0	4.5-5.5	0
BrF:					
Brantley-------------	0-3	---	0.5-4.0	4.5-5.5	0
	3-10	---	0.5-4.0	4.5-5.5	0
	10-48	---	10-35	4.5-5.5	0
	48-80	---	0.5-5.0	4.5-5.5	0
CaA:					
Casemore-------------	0-3	7.0-13	---	4.5-7.3	0
	3-7	7.0-13	---	4.5-7.3	0
	7-30	16-28	---	4.5-7.3	0
	30-80	15-28	---	4.5-7.5	0
CmB:					
Compass--------------	0-10	---	0.5-4.0	4.5-5.5	0
	10-15	---	1.0-5.0	4.5-5.5	0
	15-37	---	1.0-6.0	4.5-5.5	0
	37-80	---	1.0-8.0	4.5-5.5	0
CoC:					
Cowarts--------------	0-4	---	0.5-5.0	4.5-5.5	0
	4-10	---	0.5-5.0	4.5-5.5	0
	10-36	---	2.0-10	4.5-5.5	0
	36-80	---	2.0-8.0	4.5-5.5	0
CtE:					
Cowarts--------------	0-4	---	0.5-5.0	4.5-5.5	0
	4-10	---	0.5-5.0	4.5-5.5	0
	10-36	---	2.0-10	4.5-5.5	0
	36-80	---	2.0-8.0	4.5-5.5	0
Troup----------------	0-3	---	0.5-5.0	4.5-5.5	0
	3-50	---	0.5-5.0	4.5-5.5	0
	50-80	---	3.0-15	4.5-5.5	0
DoA:					
Dothan---------------	0-9	---	1.0-5.0	4.5-5.5	0
	9-35	---	3.0-10	4.5-5.5	0
	35-80	---	3.0-15	4.5-5.5	0
DoB:					
Dothan---------------	0-9	---	1.0-5.0	4.5-5.5	0
	9-35	---	3.0-10	4.5-5.5	0
	35-80	---	3.0-15	4.5-5.5	0
DoC:					
Dothan---------------	0-9	---	1.0-5.0	4.5-5.5	0
	9-35	---	3.0-10	4.5-5.5	0
	35-80	---	3.0-15	4.5-5.5	0
EuA:					
Eunola---------------	0-6	---	1.0-2.0	4.5-5.5	0
	6-10	---	2.0-10	4.5-5.5	0
	10-46	---	2.0-12	4.5-5.5	0
	46-53	---	2.0-10	4.5-5.5	0
	53-80	---	2.0-12	4.5-5.5	0

Table 18.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*
FaB:					
Faceville------------	0-8	---	1.0-5.0	4.5-5.5	0
	8-32	---	4.0-12	4.5-5.5	0
	32-80	---	4.0-12	4.5-5.5	0
FlA:					
Fluvaquents----------	0-6	---	2.0-15	3.6-5.5	0
	6-80	---	2.0-20	3.6-5.5	0
FqB:					
Fuquay---------------	0-4	---	0.5-5.0	4.5-5.5	0
	4-30	---	0.5-5.0	4.5-5.5	0
	30-53	---	3.0-15	4.5-5.5	0
	53-80	---	3.0-15	4.5-5.5	0
FqC:					
Fuquay---------------	0-4	---	0.5-5.0	4.5-5.5	0
	4-30	---	0.5-5.0	4.5-5.5	0
	30-53	---	3.0-15	4.5-5.5	0
	53-80	---	3.0-15	4.5-5.5	0
GrA:					
Greenville-----------	0-8	---	4.0-10	4.5-5.5	0
	8-80	---	4.0-12	4.5-5.5	0
GrB:					
Greenville-----------	0-8	---	4.0-10	4.5-5.5	0
	8-80	---	4.0-12	4.5-5.5	0
GsC2:					
Greenville-----------	0-8	---	4.0-10	4.5-5.5	0
	8-80	---	4.0-12	4.5-5.5	0
GtD3:					
Greenville-----------	0-3	---	4.0-10	4.5-5.5	0
	3-72	---	4.0-12	4.5-5.5	0
HaC2:					
Halso----------------	0-5	---	2.0-13	3.6-5.5	0
	5-43	---	16-36	3.6-5.5	0
	43-52	---	14-36	3.6-5.5	0
	52-80	---	---	---	---
HaE2:					
Halso----------------	0-5	---	2.0-13	3.6-5.5	0
	5-43	---	16-36	3.6-5.5	0
	43-52	---	14-36	3.6-5.5	0
	52-80	---	---	---	---
HsC2:					
Hannon---------------	0-3	---	18-43	4.1-7.3	0
	3-22	---	18-58	4.3-7.3	0
	22-27	20-40	---	6.6-8.4	15-40
	27-80	12-16	---	7.3-8.4	15-40
Sumter---------------	0-5	15-30	---	6.6-8.4	5-20
	5-23	15-30	---	7.4-8.4	10-35
	23-29	15-30	---	7.4-8.4	10-35
	29-80	---	---	---	---

Table 18.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon-ate
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*
ImA:					
Iuka-----------------	0-9	---	2.0-6.0	3.6-5.5	0
	9-49	---	2.0-8.0	3.6-5.5	0
	49-80	---	3.0-10	3.6-5.5	0
Marietta-------------	0-3	2.0-14	---	5.1-7.3	0
	3-32	9.0-19	---	5.1-7.3	0
	32-42	5.0-19	---	5.1-7.3	0
	42-80	5.0-16	---	5.1-7.3	0
LaA:					
Leeper---------------	0-3	15-25	---	6.1-8.4	0
	3-12	26-44	---	6.1-8.4	0
	12-62	25-40	---	6.1-8.4	0
	62-80	24-37	---	6.1-8.4	0-5
Marietta-------------	0-3	2.0-14	---	5.1-7.3	0
	3-32	9.0-19	---	5.1-7.3	0
	32-42	5.0-19	---	5.1-7.3	0
	42-80	5.0-16	---	5.1-7.3	0
LcB:					
Lucy-----------------	0-6	---	0.5-5.0	4.5-5.5	0
	6-25	---	0.5-5.0	4.5-5.5	0
	25-32	---	3.0-10	4.5-5.5	0
	32-80	---	3.0-15	4.5-5.5	0
LcC:					
Lucy-----------------	0-6	---	0.5-5.0	4.5-5.5	0
	6-25	---	0.5-5.0	4.5-5.5	0
	25-32	---	3.0-10	4.5-5.5	0
	32-80	---	3.0-15	4.5-5.5	0
LvB:					
Luverne--------------	0-7	---	1.0-6.0	3.6-5.5	0
	7-34	---	10-27	3.6-5.5	0
	34-45	---	4.0-15	3.6-5.5	0
	45-82	---	2.0-10	3.6-5.5	0
LvC:					
Luverne--------------	0-7	---	1.0-6.0	3.6-5.5	0
	7-34	---	10-27	3.6-5.5	0
	34-45	---	4.0-15	3.6-5.5	0
	45-82	---	2.0-10	3.6-5.5	0
LvD:					
Luverne--------------	0-7	---	1.0-6.0	3.6-5.5	0
	7-34	---	10-27	3.6-5.5	0
	34-45	---	4.0-15	3.6-5.5	0
	45-82	---	2.0-10	3.6-5.5	0
LvE:					
Luverne--------------	0-7	---	1.0-6.0	3.6-5.5	0
	7-34	---	10-27	3.6-5.5	0
	34-45	---	4.0-15	3.6-5.5	0
	45-82	---	2.0-10	3.6-5.5	0
MbB:					
Malbis---------------	0-10	---	1.0-5.0	4.5-5.5	0
	10-15	---	1.0-8.0	4.5-5.5	0
	15-28	---	3.0-15	4.5-5.5	0
	28-80	---	3.0-15	4.5-5.5	0

Table 18.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*
MbC:					
Malbis---------------	0-10	---	1.0-5.0	4.5-5.5	0
	10-15	---	1.0-8.0	4.5-5.5	0
	15-28	---	3.0-15	4.5-5.5	0
	28-80	---	3.0-15	4.5-5.5	0
MKA:					
Mantachie------------	0-6	---	1.0-10	3.6-5.5	0
	6-29	---	3.0-10	3.6-5.5	0
	29-62	---	2.0-5.0	3.6-5.5	0
	62-80	---	2.0-5.0	3.6-5.5	0
Kinston--------------	0-5	---	2.0-10	3.6-5.5	0
	5-30	---	3.0-10	3.6-5.5	0
	30-50	---	2.0-10	3.6-5.5	0
	50-80	---	2.0-10	3.6-5.5	0
Iuka-----------------	0-9	---	2.0-10	3.6-5.5	0
	9-49	---	2.0-7.0	3.6-5.5	0
	49-80	---	3.0-10	3.6-5.5	0
NsE:					
Nankin---------------	0-3	---	1.0-4.0	4.5-5.5	0
	3-42	---	4.0-12	4.5-5.5	0
	42-60	---	2.0-8.0	4.5-5.5	0
	60-80	---	2.0-6.0	4.5-5.5	0
Springhill-----------	0-6	---	1.0-4.0	4.5-5.5	0
	6-50	---	2.0-8.0	4.5-5.5	0
	50-80	---	1.0-6.0	4.5-5.5	0
Lucy-----------------	0-6	---	0.5-5.0	4.5-5.5	0
	6-25	---	0.5-5.0	4.5-5.5	0
	25-32	---	3.0-10	4.5-5.5	0
	32-80	---	3.0-15	4.5-5.5	0
OrA:					
Orangeburg-----------	0-8	---	1.0-4.0	4.5-5.5	0
	8-60	---	2.0-8.0	4.5-5.5	0
	60-80	---	1.0-6.0	4.5-5.5	0
OrB:					
Orangeburg-----------	0-8	---	1.0-4.0	4.5-5.5	0
	8-60	---	2.0-8.0	4.5-5.5	0
	60-80	---	1.0-6.0	4.5-5.5	0
OrC:					
Orangeburg-----------	0-8	---	1.0-4.0	4.5-5.5	0
	8-60	---	2.0-8.0	4.5-5.5	0
	60-80	---	1.0-6.0	4.5-5.5	0
OuC:					
Orangeburg-----------	0-8	---	1.0-4.0	4.5-5.5	0
	8-60	---	2.0-8.0	4.5-5.5	0
	60-80	---	1.0-6.0	4.5-5.5	0
Urban land-----------	0-6	---	---	---	---

Table 18.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*
PoA:					
Pelham---------------	0-8	---	1.0-8.0	4.5-5.5	0
	8-24	---	1.0-8.0	4.5-5.5	0
	24-36	---	2.0-4.0	4.5-5.5	0
	30-80	---	2.0-4.0	4.5-5.5	0
Ocilla----------------	0-6	---	1.0-3.0	4.5-5.5	0
	6-24	---	1.0-3.0	4.5-5.5	0
	24-60	---	3.0-6.0	4.5-5.5	0
	60-80	---	3.0-7.0	4.5-5.5	0
Pt:					
Pits-----------------	0-60	---	---	---	---
RbA:					
Rains----------------	0-4	---	1.0-5.0	4.5-5.5	0
	4-8	---	1.0-5.0	4.5-5.5	0
	8-35	---	2.0-8.0	3.6-5.5	0
	35-80	---	2.0-8.0	3.6-5.5	0
Bethera--------------	0-8	---	2.0-6.0	3.6-5.5	0
	8-80	---	8.0-20	3.6-5.5	0
ReA:					
Red Bay--------------	0-8	---	1.0-5.0	4.5-5.5	0
	8-61	---	2.0-10	4.5-5.5	0
	61-83	---	2.0-10	4.5-5.5	0
ReB:					
Red Bay--------------	0-8	---	1.0-5.0	4.5-5.5	0
	8-61	---	2.0-10	4.5-5.5	0
	61-83	---	2.0-10	4.5-5.5	0
SmD:					
Smithdale------------	0-6	---	1.0-4.0	4.5-5.5	0
	6-11	---	1.0-5.0	4.5-5.5	0
	11-41	---	2.0-8.0	4.5-5.5	0
	41-72	---	1.0-5.0	4.5-5.5	0
SpC2:					
Springhill-----------	0-6	---	1.0-4.0	4.5-5.5	0
	6-50	---	2.0-8.0	4.5-5.5	0
	50-80	---	1.0-6.0	4.5-5.5	0
SpD2:					
Springhill-----------	0-6	---	1.0-4.0	4.5-5.5	0
	6-50	---	2.0-8.0	4.5-5.5	0
	50-80	---	1.0-6.0	4.5-5.5	0
StE2:					
Sumter---------------	0-5	15-30	---	6.6-8.4	25-60
	5-23	15-30	---	7.4-8.4	40-65
	23-29	15-30	---	7.4-8.4	45-70
	29-80	---	---	---	---
Hannon---------------	0-3	---	18-43	4.1-7.3	0
	3-22	---	18-58	4.3-7.3	0
	22-27	20-40	---	6.6-8.4	15-60
	27-80	12-16	---	7.3-8.4	15-60

Table 18.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*
TaB:					
Troup----------------	0-3	---	0.5-5.0	4.5-5.5	0
	3-50	---	0.5-5.0	4.5-5.5	0
	50-80	---	3.0-15	4.5-5.5	0
TaC:					
Troup----------------	0-3	---	0.5-5.0	4.5-5.5	0
	3-50	---	0.5-5.0	4.5-5.5	0
	50-80	---	3.0-15	4.5-5.5	0
TaD:					
Troup----------------	0-3	---	0.5-5.0	4.5-5.5	0
	3-50	---	0.5-5.0	4.5-5.5	0
	50-80	---	3.0-15	4.5-5.5	0
TgD:					
Troup----------------	0-3	---	0.5-5.0	4.5-5.5	0
	3-50	---	0.5-5.0	4.5-5.5	0
	50-80	---	5.0-15	4.5-5.5	0
Alaga----------------	0-6	---	0.5-4.0	3.6-5.5	0
	6-114	---	0.5-3.0	3.6-5.5	0
ToE:					
Troup----------------	0-3	---	0.5-5.0	4.5-5.5	0
	3-50	---	0.5-5.0	4.5-5.5	0
	50-80	---	3.0-15	4.5-5.5	0
Lucy-----------------	0-6	---	0.5-5.0	4.5-5.5	0
	6-25	---	0.5-5.0	4.5-5.5	0
	25-32	---	3.0-10	4.5-5.5	0
	32-80	---	3.0-15	4.5-5.5	0
Luverne--------------	0-7	---	1.0-6.0	3.6-5.5	0
	7-34	---	10-27	3.6-5.5	0
	34-45	---	4.0-15	3.6-5.5	0
	45-82	---	2.0-10	3.6-5.5	0
TrD:					
Troup----------------	0-3	---	0.5-5.0	4.5-5.5	0
	3-50	---	0.5-5.0	4.5-5.5	0
	50-80	---	3.0-15	4.5-5.5	0
Luverne--------------	0-7	---	1.0-6.0	3.6-5.5	0
	7-34	---	10-27	3.6-5.5	0
	34-45	---	4.0-15	3.6-5.5	0
	45-82	---	2.0-10	3.6-5.5	0
TsE:					
Troup----------------	0-3	---	0.5-5.0	4.5-5.5	0
	3-50	---	0.5-5.0	4.5-5.5	0
	50-80	---	3.0-15	4.5-5.5	0
Luverne--------------	0-7	---	1.0-6.0	3.6-5.5	0
	7-34	---	10-27	3.6-5.5	0
	34-45	---	4.0-15	3.6-5.5	0
	45-82	---	2.0-10	3.6-5.5	0

Table 18.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*
TsE:					
Smithdale-----------	0-6	---	1.0-4.0	4.5-5.5	0
	6-11	---	1.0-5.0	4.5-5.5	0
	11-41	---	2.0-8.0	4.5-5.5	0
	41-72	---	1.0-5.0	4.5-5.5	0
UdC:					
Udorthents----------	0-80	---	4.0-12	3.6-5.5	0
UdE:					
Udorthents----------	0-80	---	4.0-12	3.6-5.5	0
Ur:					
Urban land----------	0-6	---	---	---	---
WmB:					
Williamsville--------	0-6	---	1.0-6.0	3.6-5.5	0
	6-11	---	1.0-6.0	3.6-5.5	0
	11-42	---	12-27	3.6-5.5	0
	42-60	---	4.0-15	3.6-5.5	0
	60-80	---	3.0-12	3.6-5.5	0
WmC:					
Williamsville--------	0-6	---	1.0-6.0	3.6-5.5	0
	6-11	---	1.0-6.0	3.6-5.5	0
	11-42	---	12-27	3.6-5.5	0
	42-60	---	4.0-15	3.6-5.5	0
	60-80	---	3.0-12	3.6-5.5	0

Table 19.--Water Features

[Depths of layers are in feet. 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	Hydro-logic group	Months	Water table		Ponding			Flooding	
			Upper limit	Kind	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft		*Ft*				
ArC:									
Arundel---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
ArE:									
Arundel---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
BbA:									
Bibb------------	D	Jan-Apr	0.5-1.0	Apparent	---	---	None	Brief	Frequent
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	0.5-1.0	Apparent	---	---	None	Brief	Frequent
Iuka------------	C	Jan-Apr	1.0-3.0	Apparent	---	---	None	Brief	Frequent
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	1.0-3.0	Apparent	---	---	None	Brief	Frequent
BcB:									
Blanton---------	A	Jan-Mar	4.0-6.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	4.0-6.0	Perched	---	---	None	---	None
BcC:									
Blanton---------	A	Jan-Mar	4.0-6.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	4.0-6.0	Perched	---	---	None	---	None
BfB:									
Bonifay---------	A	Jan-Mar	4.0-5.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	4.0-5.0	Perched	---	---	None	---	None
BfC:									
Bonifay---------	A	Jan-Mar	4.0-5.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	4.0-5.0	Perched	---	---	None	---	None
BoB:									
Bonneau---------	A	Jan-Mar	3.5-5.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	3.5-5.0	Perched	---	---	None	---	None
BrC:									
Brantley--------	C	Jan-Dec	>6.0	---	---	---	None	---	None
BrE:									
Brantley--------	C	Jan-Dec	>6.0	---	---	---	None	---	None
BrF:									
Brantley--------	C	Jan-Dec	>6.0	---	---	---	None	---	None
CaA:									
Casemore--------	C	Jan-Apr	1.0-2.0	Apparent	---	---	None	Brief	Rare
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	1.0-2.0	Apparent	---	---	None	Brief	Rare

Table 19.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Months	Water table		Ponding			Flooding	
			Upper limit	Kind	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft		*Ft*				
CmB:									
Compass---------	B	Jan-Mar	2.5-3.5	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	2.5-3.5	Perched	---	---	None	---	None
CoC:									
Cowarts---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
CtE:									
Cowarts---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Troup-----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
DoA:									
Dothan----------	B	Jan-Mar	3.0-5.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	3.0-5.0	Perched	---	---	None	---	None
DoB:									
Dothan----------	B	Jan-Mar	3.0-5.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	3.0-5.0	Perched	---	---	None	---	None
DoC:									
Dothan----------	B	Jan-Mar	3.0-5.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	3.0-5.0	Perched	---	---	None	---	None
EuA:									
Eunola----------	C	Jan-Apr	1.5-2.5	Apparent	---	---	None	Brief	Rare
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	1.5-2.5	Apparent	---	---	None	Brief	Rare
FaB:									
Faceville-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
FlA:									
Fluvaquents-----	D	Jan-Apr	0.0-1.0	Apparent	0.0-2.0	Long	Frequent	Brief	Frequent
		May-Jul	0.0-1.0	Apparent	0.0-2.0	Long	Frequent	---	---
		Aug-Nov	>6.0	---	---	---	---	---	---
		Dec	0.0-1.0	Apparent	0.0-2.0	Long	Frequent	Brief	Frequent
FqB:									
Fuquay----------	B	Jan-Mar	4.0-6.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	4.0-6.0	Perched	---	---	None	---	None
FqC:									
Fuquay----------	B	Jan-Mar	4.0-6.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	4.0-6.0	Perched	---	---	None	---	None
GrA:									
Greenville------	A	Jan-Dec	>6.0	---	---	---	None	---	None
GrB:									
Greenville------	A	Jan-Dec	>6.0	---	---	---	None	---	None
GsC2:									
Greenville------	B	Jan-Dec	>6.0	---	---	---	None	---	None

Table 19.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		Ft				
GtD3:									
Greenville------	B	Jan-Dec	>6.0	---	---	---	None	---	None
HaC2:									
Halso-----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
HaE2:									
Halso-----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
HsC2:									
Hannon----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Sumter----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
ImA:									
Iuka------------	C	Jan-Apr	1.0-3.0	Apparent	---	---	None	Brief	Frequent
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	1.0-3.0	Apparent	---	---	None	Brief	Frequent
Marietta--------	C	Jan-Apr	1.0-2.0	Apparent	---	---	None	Brief	Frequent
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	1.0-2.0	Apparent	---	---	None	Brief	Frequent
LaA:									
Leeper----------	D	Jan-Apr	1.0-2.0	Apparent	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	1.0-2.0	Apparent	---	---	None	Brief	Occasional
Marietta--------	C	Jan-Apr	1.0-2.0	Apparent	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	1.0-2.0	Apparent	---	---	None	Brief	Occasional
LcB:									
Lucy------------	A	Jan-Dec	>6.0	---	---	---	None	---	None
LcC:									
Lucy------------	A	Jan-Dec	>6.0	---	---	---	None	---	None
LvB:									
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
LvC:									
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
LvD:									
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
LvE:									
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
MbB:									
Malbis----------	B	Jan-Mar	2.5-4.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	2.5-4.0	Perched	---	---	None	---	None
MbC:									
Malbis----------	B	Jan-Mar	2.5-4.0	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	2.5-4.0	Perched	---	---	None	---	None

Table 19.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		Ft				
MKA:									
Mantachie-------	C	Jan-Apr	0.5-1.5	Apparent	---	---	None	Brief	Frequent
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	0.5-1.5	Apparent	---	---	None	Brief	Frequent
Kinston---------	D	Jan-Apr	0.0-1.0	Apparent	---	---	None	Brief	Frequent
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	0.0-1.0	Apparent	---	---	None	Brief	Frequent
Iuka------------	C	Jan-Apr	1.0-3.0	Apparent	---	---	None	Brief	Frequent
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	1.0-3.0	Apparent	---	---	None	Brief	Frequent
NsE:									
Nankin----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Springhill------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Lucy------------	A	Jan-Dec	>6.0	---	---	---	None	---	None
OrA:									
Orangeburg------	B	Jan-Dec	>6.0	---	---	---	None	---	None
OrB:									
Orangeburg------	B	Jan-Dec	>6.0	---	---	---	None	---	None
OrC:									
Orangeburg------	B	Jan-Dec	>6.0	---	---	---	None	---	None
OuC:									
Orangeburg------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	D	Jan-Dec	>6.0	---	---	---	None	---	None
PoA:									
Pelham----------	D	Jan-Apr	0.0-1.0	Apparent	---	---	None	Brief	Rare
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	0.0-1.0	Apparent	---	---	None	Brief	Rare
Ocilla----------	C	Jan-Apr	1.0-2.5	Apparent	---	---	None	Brief	Rare
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	1.0-2.5	Apparent	---	---	None	Brief	Rare
Pt:									
Pits------------	---	Jan-Dec	>6.0	---	---	---	None	---	None
RbA:									
Rains-----------	D	Jan-Apr	0.0-1.0	Apparent	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	0.0-1.0	Apparent	---	---	None	Brief	Occasional
Bethera---------	D	Jan-Apr	0.0-1.0	Apparent	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	---
		Dec	0.0-1.0	Apparent	---	---	None	Brief	Occasional
ReA:									
Red Bay---------	B	Jan-Dec	>6.0	---	---	---	None	---	None
ReB:									
Red Bay---------	B	Jan-Dec	>6.0	---	---	---	None	---	None

Table 19.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		*Ft*				
SmD:									
Smithdale-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
SpC2:									
Springhill------	B	Jan-Dec	>6.0	---	---	---	None	---	None
SpD2:									
Springhill------	B	Jan-Dec	>6.0	---	---	---	None	---	None
StE2:									
Sumter----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Hannon----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
TaB:									
Troup-----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
TaC:									
Troup-----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
TaD:									
Troup-----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
TgD:									
Troup-----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
Alaga-----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
ToE:									
Troup-----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
Lucy------------	A	Jan-Dec	>6.0	---	---	---	None	---	None
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
TrD:									
Troup-----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
TsE:									
Troup-----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Smithdale-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
UdC:									
Udorthents------	C	Jan-Dec	>6.0	---	---	---	None	---	None
UdE:									
Udorthents------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Ur:									
Urban land------	D	Jan-Dec	>6.0	---	---	---	None	---	None
WmB:									
Williamsville---	C	Jan-Dec	>6.0	---	---	---	None	---	None

Table 19.--Water Features--Continued

Map symbol and soil name	Hydro-logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		*Ft*				
WmC:									
Williamsville---	C	Jan-Dec	>6.0	---	---	---	None	---	None

Table 20.--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				Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Uncoated steel	Concrete
		In	*In*			
ArC:						
Arundel----------	Paralithic bedrock	20-40	20-40	Moderately cemented	High	High
ArE:						
Arundel----------	Paralithic bedrock	20-40	20-40	Moderately cemented	High	High
BbA:						
Bibb-------------	---	---	---	---	High	Moderate
Iuka-------------	---	---	---	---	Moderate	High
BcB:						
Blanton----------	---	---	---	---	High	High
BcC:						
Blanton----------	---	---	---	---	High	High
BfB:						
Bonifay----------	---	---	---	---	Low	High
BfC:						
Bonifay----------	---	---	---	---	Low	High
BoB:						
Bonneau----------	---	---	---	---	Low	High
BrC:						
Brantley---------	---	---	---	---	High	High
BrE:						
Brantley---------	---	---	---	---	High	High
BrF:						
Brantley---------	---	---	---	---	High	High
CaA:						
Casemore---------	---	---	---	---	Low	High
CmB:						
Compass----------	---	---	---	---	Moderate	High
CoC:						
Cowarts----------	---	---	---	---	Moderate	Moderate
CtE:						
Cowarts----------	---	---	---	---	Moderate	Moderate
Troup------------	---	---	---	---	Low	Moderate
DoA:						
Dothan-----------	---	---	---	---	Moderate	Moderate
DoB:						
Dothan-----------	---	---	---	---	Moderate	Moderate

Table 20.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Uncoated steel	Concrete
		In	*In*			
DoC:						
Dothan	---	---	---	---	Moderate	Moderate
EuA:						
Eunola	---	---	---	---	Low	High
FaB:						
Faceville	---	---	---	---	Low	Moderate
FlA:						
Fluvaquents	---	---	---	---	High	High
FqB:						
Fuquay	---	---	---	---	Low	High
FqC:						
Fuquay	---	---	---	---	Low	High
GrA:						
Greenville	---	---	---	---	Moderate	High
GrB:						
Greenville	---	---	---	---	Moderate	High
GsC2:						
Greenville	---	---	---	---	Moderate	High
GtD3:						
Greenville	---	---	---	---	Moderate	High
HaC2:						
Halso	Paralithic bedrock	40-60	---	Moderately cemented	High	High
HaE2:						
Halso	Paralithic bedrock	40-60	---	Moderately cemented	High	High
HsC2:						
Hannon	---	---	---	---	High	Low
Sumter	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	Low
ImA:						
Iuka	---	---	---	---	Moderate	High
Marietta	---	---	---	---	Moderate	Low
LaA:						
Leeper	---	---	---	---	High	Low
Marietta	---	---	---	---	Moderate	Low
LcB:						
Lucy	---	---	---	---	Low	High
LcC:						
Lucy	---	---	---	---	Low	High

Table 20.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Uncoated steel	Concrete
		In	*In*			
LvB:						
Luverne----------	---	---	---	---	High	High
LvC:						
Luverne----------	---	---	---	---	High	High
LvD:						
Luverne----------	---	---	---	---	High	High
LvE:						
Luverne----------	---	---	---	---	High	High
MbB:						
Malbis-----------	---	---	---	---	Moderate	Moderate
MbC:						
Malbis-----------	---	---	---	---	Moderate	Moderate
MKA:						
Mantachie--------	---	---	---	---	High	High
Kinston----------	---	---	---	---	High	High
Iuka-------------	---	---	---	---	Moderate	High
NsE:						
Nankin-----------	---	---	---	---	High	High
Springhill-------	---	---	---	---	Moderate	Moderate
Lucy-------------	---	---	---	---	Low	High
OrA:						
Orangeburg-------	---	---	---	---	Moderate	Moderate
OrB:						
Orangeburg-------	---	---	---	---	Moderate	Moderate
OrC:						
Orangeburg-------	---	---	---	---	Moderate	Moderate
OuC:						
Orangeburg-------	---	---	---	---	Moderate	Moderate
Urban land-------	---	---	---	---	---	---
PoA:						
Pelham-----------	---	---	---	---	High	High
Ocilla-----------	---	---	---	---	High	Moderate
Pt:						
Pits-------------	---	---	---	---	---	---
RbA:						
Rains------------	---	---	---	---	High	High
Bethera----------	---	---	---	---	High	High
ReA:						
Red Bay----------	---	---	---	---	Moderate	Moderate

Table 20.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Uncoated steel	Concrete
		In	*In*			
ReB:						
Red Bay----------	---	---	---	---	Moderate	Moderate
SmD:						
Smithdale--------	---	---	---	---	Low	Moderate
SpC2:						
Springhill-------	---	---	---	---	Moderate	Moderate
SpD2:						
Springhill-------	---	---	---	---	Moderate	Moderate
StE2:						
Sumter-----------	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	Low
Hannon-----------	---	---	---	---	High	Low
TaB:						
Troup------------	---	---	---	---	Low	Moderate
TaC:						
Troup------------	---	---	---	---	Low	Moderate
TaD:						
Troup------------	---	---	---	---	Low	Moderate
TgD:						
Troup------------	---	---	---	---	Low	Moderate
Alaga------------	---	---	---	---	Low	Moderate
ToE:						
Troup------------	---	---	---	---	Low	Moderate
Lucy-------------	---	---	---	---	Low	High
Luverne----------	---	---	---	---	High	High
TrD:						
Troup------------	---	---	---	---	Low	Moderate
Luverne----------	---	---	---	---	High	High
TsE:						
Troup------------	---	---	---	---	Low	Moderate
Luverne----------	---	---	---	---	High	High
Smithdale--------	---	---	---	---	Low	Moderate
UdC:						
Udorthents-------	---	---	---	---	High	High
UdE:						
Udorthents-------	---	---	---	---	High	High
Ur:						
Urban land-------	---	---	---	---	---	---

Table 20.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Uncoated steel	Concrete
		In	*In*			
WmB:						
Williamsville----	---	---	---	---	High	High
WmC:						
Williamsville----	---	---	---	---	High	High

Table 21.--Physical Analyses of Selected Soils

[These are the typical pedons for the series in Crenshaw County. For a description and location of each soil, see the section "Soil Series and Their Morphology." Analyses by the Agronomy and Soils Clay Mineralogy Laboratory, Auburn University, and the Alabama Agricultural Experiment Station]

Soil name and sample number	Depth	Horizon	Particle-size distribution (Percent less than 2.0 mm)		
			Sand (2.0-0.05 mm)	Silt (0.05-0.002 mm)	Clay (<0.002 mm)
	In				
Arundel:	0-3	A1	76.2	17.2	6.6
(S01-AL-041-2)	3-6	A2	76.8	15.6	7.6
	6-16	Bt1	49.2	5.4	45.4
	16-24	Bt2	60.4	4.4	35.2
	24-29	Bt3	60.7	4.2	35.1
	29-35	C	68.7	12.6	18.7
	35-80	Cr	73.0	15.0	12.0
Bonneau:	0-5	Ap1	76.6	18.5	4.9
(S00-AL-041-1)	5-13	Ap2	76.3	18.7	5.0
	13-21	E	75.5	19.8	4.7
	21-28	E/B	73.1	20.1	6.8
	28-35	B/E	71.4	15.9	12.7
	35-45	Bt1	68.1	13.7	18.2
	45-52	Bt2	64.9	11.4	23.7
	52-71	Bt3	59.7	12.1	28.2
	71-85	Bt4	70.8	7.7	21.5
Hannon:	0-3	Ap	34.7	20.6	44.7
(S04-AL-041-1)	3-12	Btss1	18.6	19.8	61.6
	12-18	Btss2	34.1	16.5	49.4
	18-22	Btss3	38.8	15.7	45.5
	22-27	BC	36.3	24.5	39.2
	27-34	C1	42.8	27.2	30.0
Mantachie:	0-2	A1	47.5	24.2	28.3
(S02-AL-041-1)	2-6	A2	59.9	18.4	21.7
	6-15	Bw1	66.1	15.9	17.8
	15-29	Bw2	62.0	15.6	22.4
	29-40	Bg1	61.3	16.4	22.3
	40-53	Bg2	58.2	16.3	25.5
	53-62	Bg3	63.1	14.8	22.1
	62-72	Cg1	67.3	13.1	19.6
	72-80	Cg2	70.9	11.9	17.2
Sumter:	0-2	A	42.5	25.4	32.1
(S04-AL-041-2)	2-5	Bk1	38.4	29.9	31.7
	5-10	Bk2	34.3	34.5	31.2
	10-17	Bk3	38.5	34.1	27.4
	17-23	Bk4	46.5	27.8	25.7
	23-29	C	47.6	26.8	25.6
	29-80	Cr	---	---	---
Williamsville:	0-6	Ap	88.7	8.3	3.0
(S02-AL-041-3)	6-11	E	87.1	9.9	3.0
	11-15	BE	61.0	7.8	31.2
	15-28	Bt1	52.9	3.7	43.4
	28-42	Bt2	60.8	3.4	35.8
	42-48	Bt3	66.4	3.6	30.0
	48-60	Bt4	70.6	3.3	26.1
	60-70	BC1	76.5	2.7	20.8
	70-80	BC2	72.9	3.6	23.5

Table 22.--Chemical Analyses of Selected Soils

[These are the typical pedons for the series in Crenshaw County. For a description and location of each soil, see the section "Soil Series and Their Morphology." Analyses by the Agronomy and Soils Clay Mineralogy Laboratory, Auburn University, and the Alabama Agricultural Experiment Station]

Soil name and sample number	Depth	Horizon	Extractable bases			Cation-exchange capacity	Base saturation	Reaction
			Ca	Mg	K			
	In		-----------*meq/100 g*----------				*Pct*	*pH*
Arundel:	0-3	A1	1.92	0.74	0.11	6.1	47	4.7
(S01-AL-041-2)	3-6	A2	2.30	0.94	0.10	6.2	55	4.7
	6-16	Bt1	4.45	5.18	0.42	26.6	39	4.5
	16-24	Bt2	3.53	4.13	0.34	23.4	35	4.5
	24-29	Bt3	2.51	3.97	0.28	24.2	29	4.5
	29-35	C	2.43	2.79	0.20	15.4	37	4.5
	35-80	Cr	2.34	2.60	0.16	13.7	40	4.3
Bonneau:	0-5	Ap1	1.00	0.53	0.47	3.5	58	5.6
(S00-AL-041-1)	5-13	Ap2	1.08	0.58	0.14	3.2	57	5.8
	13-21	E	0.46	0.13	0.11	1.2	57	5.7
	21-28	E/B	0.71	0.17	0.15	1.8	59	5.5
	28-35	B/E	1.31	0.33	0.34	3.4	58	5.4
	35-45	Bt1	2.12	0.50	0.33	5.1	58	5.4
	45-52	Bt2	2.27	0.29	0.16	7.1	38	4.5
	52-71	Bt3	1.67	0.33	0.14	8.9	24	4.3
	71-85	Bt4	0.60	0.23	0.10	7.7	12	4.4
Hannon:	0-3	A	35.63	4.30	0.45	45.4	89	4.3
(S04-AL-041-1)	3-12	Btss1	41.10	3.69	0.42	47.4	95	4.5
	12-18	Btss2	37.21	2.32	0.34	38.4	100	4.8
	18-22	Btss3	37.81	2.96	0.31	34.4	100	5.5
	22-27	BC	---	1.12	0.13	26.5	100	7.1
	27-34	C1	---	0.82	0.10	18.7	100	7.3
Mantachie:	0-2	A1	4.13	0.95	0.55	13.9	41	4.5
(S02-AL-041-1)	2-6	A2	1.13	0.19	0.09	6.9	22	4.4
	6-15	Bw1	0.92	0.12	0.04	5.9	19	4.4
	15-29	Bw2	1.18	0.12	0.05	7.3	20	4.3
	29-40	Bg1	1.36	0.08	0.05	6.2	27	4.5
	40-53	Bg2	2.85	0.09	0.06	8.3	37	4.9
	53-62	Bg3	4.23	0.18	0.06	7.1	65	5.1
	62-72	Cg1	3.67	0.23	0.06	6.4	64	5.1
	72-80	Cg2	3.91	0.23	0.06	5.3	82	5.4
Sumter:	0-2	Ap1	---	1.72	0.42	39.9	100	6.9
(S04-AL-041-2)	2-5	Ap2	---	1.55	0.18	24.4	100	7.1
	5-10	Bk1	---	1.06	0.08	19.6	100	7.3
	10-17	Bk2	---	0.75	0.07	16.3	100	7.3
	17-23	Bk3	---	0.84	0.08	14.5	100	7.4
	23-29	C	---	0.89	0.09	13.4	100	7.4
	29-80	Cr	---	---	---	---	---	---
Williamsville:	0-6	Ap	0.26	0.11	0.04	1.5	31	5.2
(S02-AL-041-3)	6-11	E	0.26	0.18	0.04	1.4	42	5.2
	11-15	BE	1.47	1.70	0.18	9.6	36	4.9
	15-28	Bt1	2.21	3.00	0.23	14.8	37	5.1
	28-42	Bt2	0.53	2.36	0.22	12.6	26	4.9
	42-48	Bt3	0.66	2.04	0.22	11.9	25	4.9
	48-60	Bt4	0.50	1.80	0.21	11.1	23	4.8
	60-70	BC1	0.35	1.41	0.17	8.7	23	4.8
	70-80	BC2	0.34	1.59	0.18	9.5	23	4.8

Table 23.--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
Alaga	Thermic, coated Typic Quartzipsamments
Arundel	Fine, smectitic, thermic Typic Hapludults
Bethera	Fine, mixed, semiactive, thermic Typic Paleaquults
Bibb	Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents
Blanton	Loamy, siliceous, subactive, thermic Grossarenic Paleudults
Bonifay	Loamy, siliceous, subactive, thermic Grossarenic Plinthic Paleudults
Bonneau	Loamy, siliceous, subactive, thermic Arenic Paleudults
Brantley	Fine, mixed, active, thermic Ultic Hapludalfs
Casemore	Fine-loamy, mixed, superactive, thermic Aquic Paleudalfs
Compass	Coarse-loamy, siliceous, subactive, thermic Plinthic Paleudults
Cowarts	Fine-loamy, kaolinitic, thermic Typic Kanhapludults
Dothan	Fine-loamy, kaolinitic, thermic Plinthic Kandiudults
Eunola	Fine-loamy, siliceous, semiactive, thermic Aquic Hapludults
Faceville	Fine, kaolinitic, thermic Typic Kandiudults
Fluvaquents	Thermic Typic Fluvaquents
Fuquay	Loamy, kaolinitic, thermic Arenic Plinthic Kandiudults
Greenville	Fine, kaolinitic, thermic Rhodic Kandiudults
Halso	Fine, smectitic, thermic Vertic Hapludults
Hannon	Fine, smectitic, thermic Chromic Hapluderts
Iuka	Coarse-loamy, siliceous, active, acid, thermic Aquic Udifluvents
Kinston	Fine-loamy, siliceous, semiactive, acid, thermic Fluvaquentic Endoaquepts
Leeper	Fine, smectitic, nonacid, thermic Vertic Epiaquepts
Lucy	Loamy, kaolinitic, thermic Arenic Kandiudults
Luverne	Fine, mixed, semiactive, thermic Typic Hapludults
Malbis	Fine-loamy, siliceous, subactive, thermic Plinthic Paleudults
Mantachie	Fine-loamy, siliceous, active, acid, thermic Fluventic Endoaquepts
Marietta	Fine-loamy, siliceous, active, thermic Fluvaquentic Eutrudepts
Nankin	Fine, kaolinitic, thermic Typic Kanhapludults
Ocilla	Loamy, siliceous, semiactive, thermic Aquic Arenic Paleudults
Orangeburg	Fine-loamy, kaolinitic, thermic Typic Kandiudults
Pelham	Loamy, siliceous, subactive, thermic Arenic Paleaquults
Rains	Fine-loamy, siliceous, semiactive, thermic Typic Paleaquults
Red Bay	Fine-loamy, kaolinitic, thermic Rhodic Kandiudults
Smithdale	Fine-loamy, siliceous, subactive, thermic Typic Hapludults
Springhill	Fine-loamy, kaolinitic, thermic Typic Kanhapludults
*Sumter	Fine-loamy, carbonatic, thermic Rendollic Eutrudepts
Troup	Loamy, kaolinitic, thermic Grossarenic Kandiudults
Udorthents	Thermic Typic Udorthents
Williamsville	Fine, mixed, active, thermic Typic Hapludults

NRCS Accessibility Statement

The Natural Resources Conservation Service (NRCS) is committed to making its information accessible to all of its customers and employees. If you are experiencing accessibility issues and need assistance, please contact our Helpdesk by phone at 1-800-457-3642 or by e-mail at ServiceDesk-FTC@ftc.usda.gov. For assistance with publications that include maps, graphs, or similar forms of information, you may also wish to contact our State or local office. You can locate the correct office and phone number at http://offices.sc.egov.usda.gov/locator/app.