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 Clarke 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.

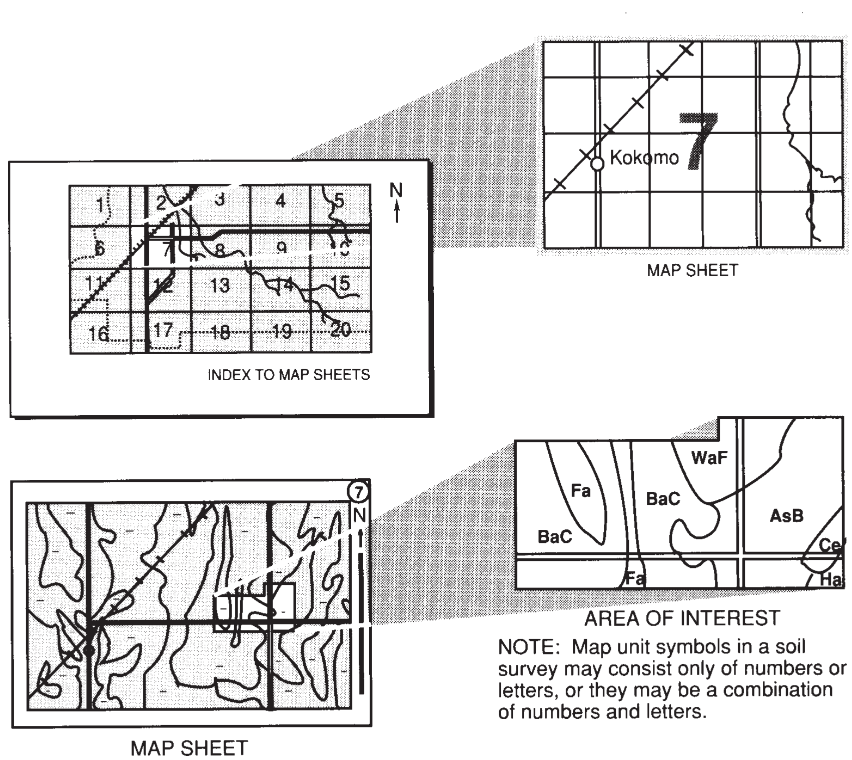
Detailed Soil Maps

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.



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 2004. Soil names and descriptions were approved in 2004. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2004. 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 Clarke 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: A well managed stand of loblolly pine in an area of Savannah fine sandy loam, 0 to 2 percent slopes. Forestland covers about 91 percent of the county, and the forest industry is the mainstay of the local economy.

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

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August 2006

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 Service.

Gary Kobylski

Gary Kobylski
State Conservationist
Natural Resources Conservation Service

Soil Survey of
Clarke County, Alabama

By Sanderson Page

Fieldwork by Gregory R. Brannon, Bobby Fox, Glen L. Hickman, Kenneth Johnson, Joey Koptis, Shirley Ooley, Sanderson Page, and Joe Wentz

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

Clarke County is in the southwestern part of Alabama (fig. 1). It is bordered on the north by Marengo County, on the east by Wilcox and Monroe Counties, on the south by Baldwin County, and on the west by Washington and Choctaw Counties. The Tombigbee River forms the western boundary, and the Alabama River forms the southeastern and southern boundaries. Grove Hill, the county seat, is near the center of the county. Clarke County encompasses 801,470 acres, or about 1,238 square miles. About 787,310 acres consists of land areas and small bodies of water. About 14,160 acres consists of large areas of water in lakes and rivers.

Clarke County is mostly rural. In 2000, it had a population of 27,487 (USDC, 2004). Jackson, the largest community in the county, had a population of 6,223 (Mobile Press Register, 2000). Grove Hill, the county seat, had a population of 1,583. Other communities in the county include Thomasville (population 4,566), Coffeeville (population 439), and Fulton (population 394).

About 91 percent of the county is forested. The forest products industry, which includes paper mills, sawmills, and veneer mills, is the mainstay of the economy. In 2000, Clarke County ranked number one in Alabama for production and value of forest products (Clarke County Democrat, 2001). A relatively small acreage is used for cultivated crops, beef cattle, hay, and pasture.

General Nature of the County

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

History and Development

Clarke County has always been rural and relatively sparsely populated. The economy has been based on utilization of natural resources. The Tombigbee River,

Figure 1.—Location of Clarke County in Alabama.

which forms the western boundary of the county, and the Alabama River, which forms the southeastern and southern boundaries, have had a major influence on the history of the county. Prior to the arrival of European colonists in southwestern Alabama, the area that is now Clarke County served as part of a buffer between two large tribes of Native Americans: the Creeks and the Choctaws. The population centers of the Choctaws were mostly in Mississippi. The Creeks occupied areas mostly north and east of Montgomery, Alabama, and into Georgia. The ridge that divides the watersheds of the Tombigbee and Alabama Rivers served as the boundary between the tribes in the Clarke County area. Even today, the county road that follows this ridge is known as the Indian Treaty Boundary Road.

The first Europeans to arrive in the area were members of the expeditionary force of Hernando DeSoto. During the middle part of the 1500s, DeSoto forayed into the area that is now Alabama in search of gold. This foray climaxed in 1540 at the battle of Maubila. The Indian town of Maubila was a large population center and part of the large Mississippian chiefdom of Chief Tascalusa. The actual location of Maubila is unknown, but some historians have placed the site on a large plain west of the Alabama River in Clarke County.

Two centuries later, the rapid colonization of the American southeast by Spain, France, and England had just begun, and the future of the population and cultures of Alabama and Clarke County had changed dramatically. Enzweiler (1997) said, “The Europeans’ technological superiority and hunger for wealth combined with the Indians’ lack of immunity to old world diseases virtually destroyed these Native American peoples and their cultures.”

Although Spain and France had begun to colonize areas of the Gulf Coast, European settlement in Clarke County did not begin until after the end of the French and Indian War in 1763. Great Britain’s triumph over the France and Spain resulted in a huge land swap in the New World. According to Enzweiler (1997), “France gave Louisiana west of the Mississippi River to Spain and ceded Canada and its lands east of the Mississippi to Great Britain. Great Britain then gave New Orleans to Spain in return for Florida. The future Clarke County was now included in the British Province of West Florida."

During the American Revolutionary War, Spain entered the conflict against Great Britain and captured Mobile and Pensacola. At the end of the war in 1783, the thirty-first parallel became the southern boundary of the United States. The thirty-first parallel corresponds to the current northern boundary of the Florida panhandle. In 1798 and 1799, the United States government organized the Mississippi Territory and surveyed and marked the thirty-first parallel. In 1800, Washington County (including the area that is currently Clarke County) was formed out of the Mississippi Territory.

Near the end of the 1700s, European settlements in the Clarke County area were sparse and not well documented. Most of the settlers in the area immigrated from the Carolinas, Georgia, Virginia, Tennessee, and Kentucky. Most of the early settlements were along the rivers. In 1805, the Choctaws ceded 5 million acres to the United States.

In 1811, the Federal Road was opened, producing a steady influx of new settlers. The Federal Road originated in Georgia and headed west-southwest through Georgia and Alabama. An offshoot of the Federal Road diverted west through the area that is now Clarke County. From 1810 to 1820, the population of the area increased dramatically.

In 1812, Clarke County was formed out of the part of Washington County between the Tombigbee River and the Indian Treaty boundary line. The current boundaries of Clarke County were finalized in 1831 and include additions from parts of Wilcox and Monroe Counties. The county was named in honor of General John Clarke, a hero of the War of 1812 from Georgia.

During the 1820s and 1830s, immigration and the plantation economy grew and flourished. Rapid agricultural development in Clarke County contributed to the growth of several communities. During the antebellum period, the acreage of farmland increased from roughly one-quarter to more than one-half of the land base in the county (Enzweiler, 1997). Typically, cultivated crops, such as cotton, corn, various grains, sweet potatoes, tobacco, beans, and peas, comprised about one-quarter of the farmland. The rest was used as open range for cattle and hogs.

An economic depression in the late 1830s, followed by the Civil War from 1861 to 1865, slowed further progress and prosperity. Because Union troops entered the county only once, very little fighting occurred in the county. Many men from the county, however, enlisted in the Confederate Army and many lives were lost. The local population also contributed to the war effort by building gunboats in the area of Oven Bluff on the Tombigbee River in the southwestern part of the county. Of more importance to the war effort, however, was the manufacture of salt at the "Upper Works" and "Lower Works," north and south of Jackson, respectively. Although Clarke County was not occupied during the war and suffered little physical damage, hardship and deprivations were felt throughout the south, and some of the well established communities in the county began to wither and die.

The Reconstruction Period was a time of hardship in Clarke County and throughout the South. Although corruption was rampant, progress was made in improving the infrastructure needed for industry. Attempts were made to furnish food, medical supplies, and education to the needy. The attempts were financed by increased taxes and state debt (Atkins, 2004).

In the late 1880s, construction of a railroad transformed the main transportation system in Clarke County from riverboat to rail.

In Clarke County, the lumber industry, which had begun in the early nineteenth century but was overshadowed by agriculture, really began to emerge in the latter part of the century. Southern Alabama's "yellow pine" became increasingly important because of expanding demand for construction materials, naval stores, barrel staves, and railroad ties. Also, increasing export demands, depletion of lumber supplies in the north, ease of harvesting in the gently rolling topography, and proximity to the industrial north further enhanced economic development and growth of the lumber industry.

Throughout the state, the early part of the twentieth century saw a rise in industry (including the manufacture of iron, steel, and textiles), improvement in agricultural technology, and development of the railway system. In the first two decades of the twentieth century, expanded industrialization and increased agricultural production caused a gradual improvement of the state's economy. During World War I, the war effort further enhanced expansion and increased non-agrarian employment (Atkins, 2004; Enzweiler, 1977).

The infamous stock market crash of 1929 and the subsequent Great Depression of the 1930s eroded much of the economic growth throughout the state. In Clarke County, the employment rate dropped and many people returned to farms where they could at least eke out subsistence on small land parcels. Farm production diversified away from cotton and towards food crops, dairy, and production of poultry and livestock. From 1933 to 1945, New Deal programs provided a transfusion of federal money and programs into Clarke County, resulting in increased employment, relief for the poor, aid to farm families through loans and farm planning, and an improved infrastructure of roads, schools, water supplies, and sanitary projects.

During World War II, the citizens of Clarke County supported the war effort by enlisting in the armed forces and working in factories in Mobile. Essential natural resources provided to the military included lumber, pulpwood for paper, food crops, and cotton goods.

The latter half of the twentieth century saw a rise in manufacturing and a decline in agriculture in the county. Like other rural areas in Alabama, Clarke County had inexpensive land, low taxes, and low-cost power. Also, widespread poverty provided a potential work force as the importance of agriculture dwindled. After World War II, manufacturing jobs, especially in the textile industry, bolstered the agrarian- and forest-based economy. Special incentives with respect to financing, taxes, and job training attracted manufacturing industries to many rural areas in the state. Recently, however, Clarke County has been struggling to compete in the global economy with developing countries that offer similar incentives and cheap labor (Mobile Press Register, 1999).

Physiography, Relief, and Drainage

Clarke County is in the East Gulf Coastal Plain Section of the Coastal Plain Physiographic Province. Gently rolling to strongly dissected, hilly topography characterizes this area of the lower Coastal Plain. Elevations in the county range from about 10 feet above mean sea level on the flood plains along the Tombigbee and Alabama Rivers at the southern tip of the county to about 500 feet near the town of Grove Hill in the central part of the county.

The soils are forming in deposits of Tertiary- and Quaternary-age sediments that consist primarily of unconsolidated clay, silt, sand, and gravel with lesser amounts of limestone, chalk, shale, siltstone, and claystone. The Tertiary-age sediments are underlain by Mesozoic and Cenozoic sedimentary rocks that dip southward at 20 to 40 feet per mile (Copeland, 1968). The Quaternary-age sediments, which include quartzite and chert gravel, are on high terraces that formed during the Pleistocene when the base-level of major streams was at higher elevations. More recent Holocene-age sediments are on terraces and flood plains along the present-day streams.

In the northern part of the county, erosion-resistant sedimentary rocks form several easterly to southeasterly trending hilly belts known as "cuestas." These cuestas consist of an asymmetrical hogback ridge on which the steeper slopes face north and the opposing slopes are longer and gentler (fig. 2). In the southern part of the county,

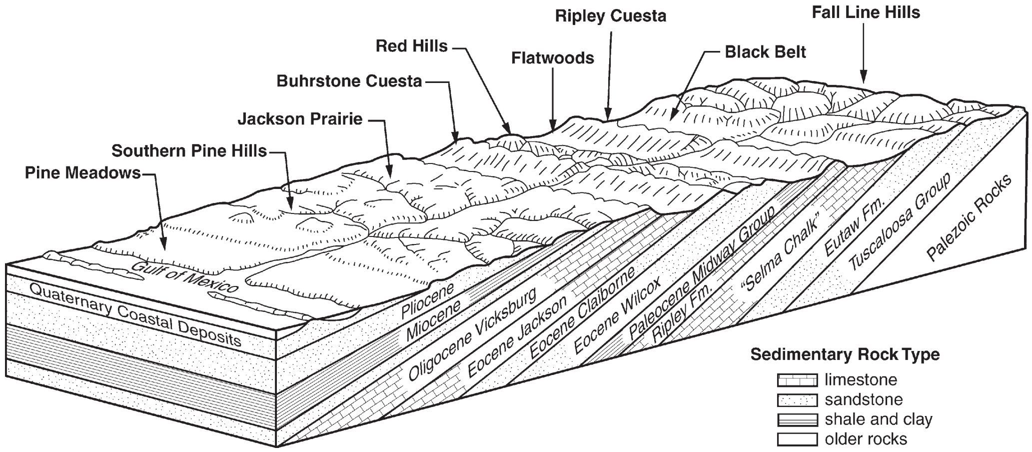

Figure 2.—Schematic of the Gulf Coastal Plain illustrating the dip of Coastal Plain sediments and the pattern of outcrop on the surface. Also shown are the cuestas that occur in a north-facing direction where streams seeking pathways to the Gulf of Mexico encountered belts of resistant rocks (Lacefield, 2000, after Clay and others, 1989).

steep topography is more a function of erosion following uplift of the sedimentary strata.

Clarke County lies within four subdivisions of the East Gulf Coastal Plain Section: the Southern Red Hills District, the Lime Hills District, the Southern Pine Hills District, and the Alluvial Plain (fig. 3).

The Southern Red Hills District is in the northern part of the county. It consists of several somewhat parallel belts of high hills trending from the western part of the county in an easterly to southeast direction. The Tuscahoma Sand and Hatchetigbee Formations of the early Eocene-age Wilcox Group are exposed in this part of the county. The southern part of the Southern Red Hills District is subdivided into the Buhrstone Hills subdistrict. The Buhrstone Hills are underlain by indurated rocks of the Tallahatta Formation of the middle Eocene Claiborne Group and include some of the most rugged topography on the Alabama Coastal Plain. Summits along the northern edge of the cuesta rise 150 to nearly 400 feet above the major streams. The topography is more gently rolling in areas of the Gosport/Lisbon Formation in the southern part of the subdistrict.

The Lime Hills District, which lies south of the Buhrstone Hills, also includes some areas of very rugged topography. The topography is attributed to several geologic faults and the underlying beds of limestone of late-Eocene and Oligocene age. Relief of 200 feet is common. The Lime Hills comprise an area of distinct soils that are forming in materials weathered from marl, limestone, and chalk. The southwestern part of the Lime Hills is subdivided into the Hatchetigbee Dome subdistrict. The Tallahatta Formation and parts of the Wilcox Group reappear in this area. Relief is commonly 100 to 200 feet.

The Southern Pine Hills District is south of the Lime Hills in the central and southern parts of the county. A dissected, southward-sloping plain of unconsolidated Miocene- and Pliocene-age sediments comprise this district.

The Alluvial Plain District is comprised of Holocene-age fluvial sediments on the flood plains and low terraces along the Alabama and Tombigbee Rivers.

Clarke County is bounded on the west by the Tombigbee River and on the east by the Alabama River. The confluence of the two rivers is just south of the southern tip of the county and forms the Mobile River. The watersheds of the Alabama and Tombigbee Rivers are divided in the eastern part of the county by a high ridge known as "Indian Ridge." The divide traces its way from the Wilcox County border through

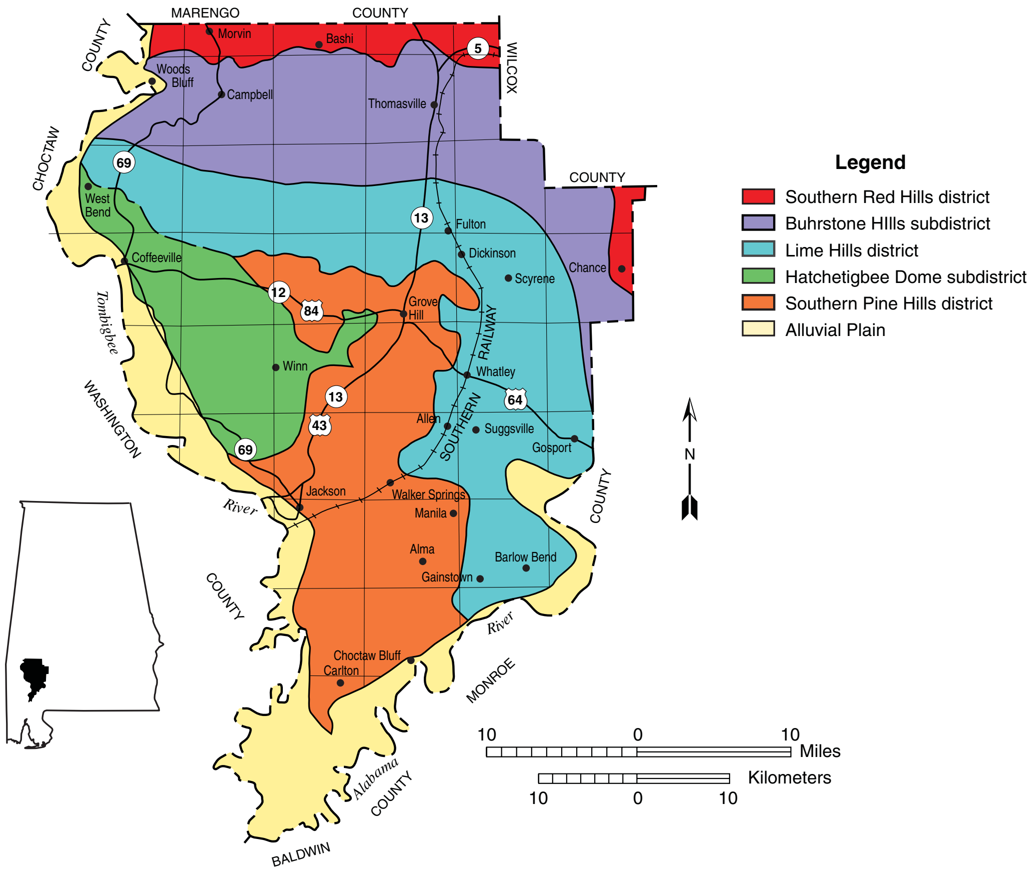

Figure 3.—The physiographic districts of Clarke County, Alabama. There is a strong correlation between the physiographic districts, surface geology, and soil associations (after Raymond, and others, 1981).

Scyrene, Vashti, Suggsville, Perrys Chapel, Rockville, and Carlton. A significantly larger portion of the county is drained by streams that flow into the Tombigbee River. Bashi Creek, Tallahatta Creek, and Satilpa Creek flow westward and drain the northern and western parts of the county into the Tombigbee River. Tattiliba Creek, Jackson Creek, Stave Creek, and Bassetts Creek drain the north-central and southwestern parts of the county and flow into the Tombigbee River. Silver Creek, Pigeon Creek, Reedy Creek, and other smaller creeks drain the eastern part of the county into the Alabama River.

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 Thomasville, Alabama. Thunderstorm days, relative humidity, percent sunshine, and wind information are estimated from a first order station at Mobile, Alabama.

Table 1 gives data on temperature and precipitation for the survey area as recorded at Thomasville 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 36 degrees. The lowest temperature on record, which occurred at

Thomasville on January 21, 1985, was -1 degrees. In summer, the average temperature is about 80 degrees and the average daily maximum temperature is about 91 degrees. The highest temperature, which occurred at Thomasville on June 26, 1930, was 108 degrees.

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

The average annual total precipitation is 59.6 inches. Of this, about 43 inches, or 72 percent, usually falls in March through November. The growing season for most crops falls within this period. In 2 years out of 10, the rainfall from March through November is less than 20.6 inches. Thunderstorms occur on about 75 days each year. They occur in all months but most frequently between June and August.

The average seasonal snowfall is 0.6 inch. The greatest snow depth at any one time during the period of record was 12 inches recorded on March 13, 1993. On an average, less than one day per year has at least 1 inch of snow on the ground. The heaviest 1-day snowfall on record was 12.0 inches recorded on March 13, 1993.

The average relative humidity in mid-afternoon is about 55 percent. Humidity is higher at night, and the average at dawn is about 85 percent. The sun shines 65 percent of the time possible in summer and 53 percent in winter. The prevailing wind is from the south from April to July and from the north the remainder of the year. Average wind speed is highest, around 10 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 Clarke County were matched, where possible, with those of the previously completed surveys of Baldwin, Choctaw, Marengo, Monroe, and Wilcox 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.

Areas on Flood Plains and Low Stream Terraces Dominated by Level to Gently Sloping, Loamy and Clayey Soils that are Subject to Flooding

These moderately well drained to poorly drained soils have a loamy or clayey surface layer and a loamy or clayey subsoil or substratum. They make up about 19 percent of the county. Most of the acreage is forestland and is used for forest production and wildlife habitat. A significant acreage is used for cultivated crops, pasture, or hay. A few areas, on terraces that are not subject to flooding, are used as homesites. Wetness and flooding, which limit the use of equipment and increase the seedling mortality rate, and plant competition are the main management concerns affecting forestland.

1. Urbo-Una-Mooreville

Dominantly level to gently undulating, somewhat poorly drained, poorly drained, and moderately well drained soils that have a clayey or loamy surface layer and a clayey or loamy subsoil; on flood plains

Setting

Location in the survey area: Parallel to the Alabama and Tombigbee Rivers in the eastern, western, and southern parts of the county
Landform: Flood plains
Landform position: Urbo—lower and intermediate parts of low ridges and natural levees and in shallow swales; Una—oxbows, sloughs, and swales; Mooreville—high parts of low ridges or natural levees
Slope: 0 to 3 percent

Composition

Percent of the survey area: 13
Urbo soils: 33 percent
Una soils: 28 percent
Mooreville soils: 15 percent
Minor soils: 24 percent, including Cahaba, Chrysler, Izagora, Latonia, Lenoir, Mantachie, and Riverview soils and Udorthents

Soil Characteristics

Urbo
Surface layer: Dark grayish brown silty clay
Subsoil: Upper part—brown silty clay that has grayish mottles; next part—grayish brown and brown silty clay and clay having brownish mottles; lower part—gray sandy clay loam that has brownish mottles
Depth class: Very deep
Drainage class: Somewhat poorly drained
Seasonal high water table: Apparent, at a depth of 1 to 2 feet from December through April
Slope: 0 to 3 percent
Parent material: Acid, clayey alluvium

Una
Surface layer: Gray clay that has reddish mottles
Subsoil: Upper part—gray clay that has reddish mottles; lower part—gray and light gray clay that has brownish mottles
Depth class: Very deep
Drainage class: Poorly drained
Seasonal high water table: Apparent, from 2 feet above the surface to a depth of $^1/_2$ foot from January through December
Slope: 0 to 1 percent
Parent material: Acid, clayey alluvium

Mooreville
Surface layer: Very dark grayish brown and brown clay loam
Subsoil: Upper part—brown silty clay loam that has grayish and brownish mottles; next part—dark yellowish brown clay loam that has grayish and brownish mottles; lower part—dark yellowish brown and brown loam that has grayish and brownish mottles
Substratum: Yellowish brown sandy loam that has grayish, brownish, and reddish mottles

Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Apparent, at a depth of 1½ to 3 feet from December through April
Slope: 0 to 3 percent
Parent material: Loamy alluvium

Minor soils
- The clayey, moderately well drained Chrysler and somewhat poorly drained Lenoir soils on low terraces
- The loamy, well drained Cahaba and Latonia and moderately well drained Izagora soils on low terraces
- The loamy, somewhat poorly drained Mantachie soils on the low parts of natural levees and low ridges
- The loamy, well drained Riverview soils on the high parts of natural levees
- The variable Udorthents in contained areas on natural levees

Use and Management

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

Cropland
Management concerns: Flooding and wetness

Pasture and hayland
Management concerns: Flooding and wetness

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

Urban development
Management concerns: Flooding and wetness

2. Iuka-Bibb-Harleston

Dominantly level and nearly level, moderately well drained and poorly drained soils that have a loamy surface layer and a loamy subsoil or substratum; on flood plains and terraces

Setting

Location in the survey area: Parallel to major streams throughout the county
Landform: Iuka and Bibb—flood plains; Harleston—mid-level stream terraces; Myatt—low stream terraces (fig. 4)
Landform position: Iuka—convex slopes on high and intermediate parts of natural levees; Bibb—flat or concave slopes in backswamps; Harleston—convex slopes on summits; Myatt—flat or concave slopes
Slope: 0 to 2 percent

Composition

Percent of the survey area: 4
Iuka and similar soils: 25 percent
Bibb soils: 20 percent
Harleston and similar soils: 15 percent
Myatt and similar soils: 12 percent
Minor soils: 28 percent, including Cahaba, Izagora, Jedburg, Latonia, Ochlockonee, Ocilla, and Pelham soils and Fluvaquents

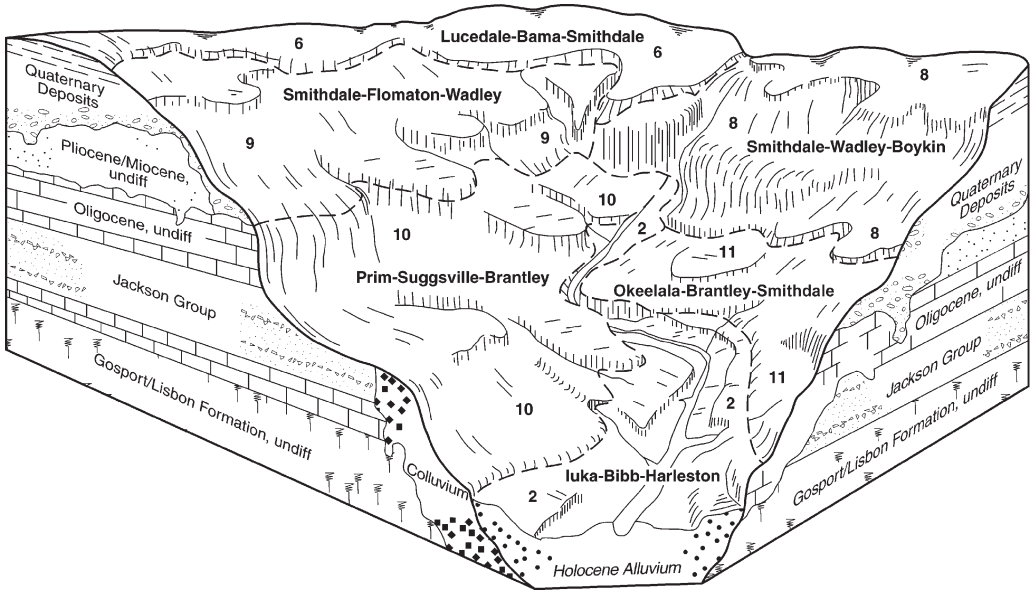

Figure 4.—Generalized patterns of soils and geomorphology and landscape relationships in general soil map units 2—Iuka-Bibb-Harleston, 6—Lucedale-Bama-Smithdale, 8—Smithdale-Wadley-Boykin, 9—Smithdale-Flomaton-Wadley, 10—Prim-Suggsville-Brantley, and 11—Okeelala-Brantley-Smithdale. The area illustrated is along Bassett Creek in the northeastern part of Clarke County, Alabama.

Soil Characteristics

Iuka

Surface layer: Dark grayish brown sandy loam that has brownish mottles
Substratum: Upper part—brown, yellowish brown, and dark yellowish brown sandy loam that has thin strata of loamy sand; next part—light gray sandy loam that has brownish mottles and thin strata of sand; lower part—light brownish gray loamy sand that has thin strata of sandy loam
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Apparent, at a depth of 1$^1/_2$ to 3 feet from December through April
Slope: 0 to 2 percent
Parent material: Stratified loamy and sandy alluvium

Bibb

Surface layer: Dark gray sandy loam
Substratum: Upper part—dark gray sandy loam that has brownish mottles; lower part—dark gray sandy loam that has few thin strata of 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 2 percent
Parent material: Stratified loamy and sandy alluvium

Harleston

Surface layer: Brown loamy fine sand

Subsurface layer: Yellowish brown loamy fine sand
Subsoil: Yellowish brown fine sandy loam that has brownish and grayish mottles
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Apparent, at a depth of 2 to 3 feet from December through April
Slope: 0 to 2 percent
Parent material: Loamy and sandy alluvial sediments

Myatt
Surface layer: Very dark grayish brown fine sandy loam
Subsurface layer: Upper part—grayish brown loam that has yellowish mottles; lower part—light brownish gray loam that has brownish mottles
Subsoil: Upper part—light brownish gray sandy clay loam that has brownish and yellowish mottles; lower part—light brownish gray loam that has brownish and reddish mottles
Substratum: Light brownish gray sandy loam that has brownish mottles
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: Loamy alluvial sediments

Minor soils
- The well drained Cahaba and Latonia soils on the higher, more convex parts of low terraces
- The very poorly drained Fluvaquents in depressions on flood plains and low terraces
- The moderately well drained Izagora and somewhat poorly drained Jedburg soils on the slightly higher parts of low terraces
- The well drained Ochlockonee soils on high parts of natural levees
- The sandy, somewhat poorly drained Ocilla and poorly drained Pelham soils on terraces and toeslopes

Use and Management

Major uses: Pasture, hayland, forestland, and wildlife habitat

Cropland
Management concerns: Bibb, Iuka, and Myatt—flooding and wetness; Harleston—wetness

Pasture and hayland
Management concerns: Bibb, Iuka, and Myatt—flooding and wetness; Harleston—wetness

Forestland
Management concerns: Iuka—restricted use of equipment and competition from undesirable plants; Bibb and Myatt—restricted use of equipment, seedling survival, and competition from undesirable plants; Harleston—competition from undesirable plants

Urban development
Management concerns: Bibb, Iuka, and Myatt—flooding and wetness; Harleston—wetness

3. Lenoir-Izagora-Chrysler

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

Setting

Location in the survey area: Parallel to the Alabama and Tombigbee Rivers and other major streams in the western and eastern parts of the county
Landform: Lenoir, Izagora, and Chrysler—low terraces; Bibb—flood plains
Landform position: Lenoir—flat and slightly concave slopes; Izagora and Chrysler—slightly convex slopes; Bibb—backswamps
Slope: 0 to 2 percent

Composition

Percent of the survey area: 2
Lenoir soils: 28 percent
Izagora and similar soils: 20 percent
Chrysler soils: 15 percent
Bibb soils: 12 percent
Minor soils: 25 percent, including Cahaba, Iuka, Latonia, Jedburg, Mantachie, Myatt, Una, and Urbo soils and Fluvaquents

Soil Characteristics

Lenoir
Surface layer: Dark grayish brown silt loam
Subsurface layer: Upper part—yellowish brown loam that has grayish and brownish mottles
Subsoil: Upper part—mottled brown and yellowish brown clay loam; next part—light brownish gray clay that has brownish and reddish mottles; lower part—gray clay that has reddish and brownish mottles
Depth class: Very deep
Drainage class: Somewhat poorly drained
Seasonal high water table: Apparent, at a depth of 1 to 2$^1/_2$ feet from December through April
Slope: 0 to 2 percent
Parent material: Clayey alluvial sediments

Izagora
Surface layer: Very dark grayish brown fine sandy loam
Subsurface layer: Brown fine sandy loam
Subsoil: Upper part—yellowish brown sandy clay loam; next part—yellowish brown sandy clay loam that has reddish and grayish mottles; lower part—mottled grayish, brownish, and reddish clay loam
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 2 to 3 feet from December through April
Slope: 0 to 2 percent
Parent material: Loamy alluvial sediments

Chrysler
Surface layer: Brown and dark yellowish brown loam
Subsoil: Upper part—yellowish red clay loam; next part—red clay that has brownish and grayish mottles; lower part—mottled light gray and red clay
Depth class: Very deep

Drainage class: Moderately well drained
Seasonal high water table: Apparent, at a depth of 1 1/2 to 2 1/2 feet from December through April
Slope: 0 to 2 percent
Parent material: Clayey alluvial sediments

Bibb
Surface layer: Dark gray sandy loam
Substratum: Upper part—dark gray sandy loam that has brownish mottles; lower part—dark gray sandy loam that has few thin strata of 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 2 percent
Parent material: Stratified loamy and sandy alluvium

Minor soils
- The loamy, well drained Cahaba and Latonia soils on the slightly higher, more convex parts of low terraces
- The very poorly drained Fluvaquents in depressions on flood plains and low terraces
- The moderately well drained Iuka and somewhat poorly drained Mantachie soils on natural levees
- The loamy, somewhat poorly drained Jedburg soils in positions similar to those of the Lenoir soils
- The loamy, poorly drained Myatt soils on the slightly lower, more concave parts of low terraces
- The clayey, poorly drained Una soils in oxbows, sloughs, and swales
- The clayey, somewhat poorly drained Urbo soils on the lower parts of natural levees and in backswamps

Use and Management

Major uses: Hayland, pasture, cropland, forestland, and wildlife habitat

Cropland
Management concerns: Flooding and wetness

Pasture and hayland
Management concerns: Flooding and wetness

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

Urban development
Management concerns: Flooding, wetness, restricted permeability, and low strength

Areas on Intermediate and High Stream Terraces Dominated by Nearly Level to Strongly Sloping, Loamy Soils

These well drained to poorly drained soils have a loamy surface layer and a loamy subsoil or substratum. They make up about 9 percent of the county. Most of the acreage is forestland and is used for forest production and wildlife habitat. A significant acreage is used for homesites or other urban development, pasture, or hay. Slope, which limits the use of equipment in the steeper areas, and plant competition are the main management concerns affecting forestland. Erosion and low fertility are management concerns in areas used for crops, pasture, or forestland.

4. Daleville-Jedburg-Ochlockonee

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

Setting

Location in the survey area: Parallel to Bashi and Tallahatta Creeks in the northwestern part of the county
Landform: Daleville and Savannah—mid-level stream terraces; Jedburg—low stream terraces; Ochlockonee—flood plains
Landform position: Daleville and Jedburg—flat or slightly concave slopes on summits; Ochlockonee—convex slopes on natural levees; Savannah—convex slopes on summits
Slope: 0 to 2 percent

Composition

Percent of the survey area: 2
- Daleville soils: 21 percent
- Jedburg soils: 20 percent
- Ochlockonee soils: 20 percent
- Savannah soils: 14 percent
- Minor soils: 25 percent, including Bibb, Deerford, Iuka, Izagora, McCrory, Myatt, and Quitman soils

Soil Characteristics

Daleville
Surface layer: Dark grayish brown loam
Subsurface layer: Grayish brown loam that has brownish mottles
Subsoil: Upper part—dark grayish brown loam that has brownish mottles; next part—gray and light gray clay loam that has grayish and brownish mottles; lower part—mottled yellowish brown, brownish yellow, and light brownish gray sandy clay 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 2 percent
Parent material: Loamy alluvial sediments

Jedburg
Surface layer: Dark grayish brown and dark yellowish brown loam
Subsoil: Upper part—yellowish brown and brown loam that has grayish and brownish mottles; next part—light brownish gray loam and grayish brown clay loam having brownish mottles; lower part—light brownish gray sandy clay and gray clay having brownish mottles
Depth class: Very deep
Drainage class: Somewhat poorly drained
Seasonal high water table: Apparent, at a depth of $^1/_2$ to $1^1/_2$ feet from December through April
Slope: 0 to 2 percent
Parent material: Loamy and clayey alluvial sediments

Ochlockonee
Surface layer: Yellowish brown sandy loam
Substratum: Upper part—dark yellowish brown loam; next part—dark brown loam; lower part—dark yellowish brown sandy loam that has thin strata of loamy sand
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: Apparent, at a depth of 3 to 6 feet from December through April
Slope: 0 to 2 percent
Parent material: Loamy alluvium

Savannah
Surface layer: Very dark grayish brown loam and dark grayish brown fine sandy loam
Subsurface layer: Light olive brown fine sandy loam
Subsoil: Upper part—yellowish brown loam; next part—light olive brown sandy clay loam fragipan that has reddish, brownish, and grayish mottles; next part—mottled light yellowish brown and yellowish brown clay loam fragipan that has reddish and grayish mottles; lower part—yellowish brown clay loam and light gray sandy clay loam having brownish and grayish mottles
Depth class: Moderately deep to a fragipan
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 1½ to 3 feet from December through April
Slope: 0 to 2 percent
Parent material: Loamy alluvial sediments

Minor soils
- The poorly drained Bibb soils on low parts of flood plains
- The somewhat poorly drained Deerford and poorly drained McCrory soils in flat or concave positions on low terraces
- The moderately well drained Izagora soils in slightly convex positions on low terraces
- The poorly drained Myatt soils in concave positions on low terraces
- The somewhat poorly drained Quitman soils in slightly higher, more convex positions than those of the Daleville soils

Use and Management

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

Cropland
Management concerns: Daleville and Savannah—wetness; Jedburg—flooding and wetness; Ochlockonee—flooding

Pasture and hayland
Management concerns: Daleville and Savannah—wetness; Jedburg—flooding and wetness; Ochlockonee—flooding

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

Urban development
Management concerns: Daleville and Savannah—wetness, restricted permeability, and low strength; Jedburg—flooding, wetness, restricted permeability, and low strength; Ochlockonee—flooding

5. Savannah-Malbis-Smithdale

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

Setting

Location in the survey area: Parallel to Bassett and Cane Creeks and the Alabama River in the eastern part of the county
Landform: High terraces
Landform position: Savannah—summits; Malbis—summits and side slopes; Smithdale—side slopes
Slope: 0 to 15 percent

Composition

Percent of the survey area: 2
Savannah soils: 35 percent
Malbis soils: 28 percent
Smithdale soils: 12 percent
Minor soils: 25 percent, including Bama, Bibb, Boykin, Escambia, Iuka, Maubila, and Wadley soils

Soil Characteristics

Savannah
Surface layer: Very dark grayish brown loam and dark grayish brown fine sandy loam
Subsurface layer: Light olive brown fine sandy loam
Subsoil: Upper part—yellowish brown loam; next part—light olive brown sandy clay loam fragipan that has reddish, brownish, and grayish mottles; next part—mottled light yellowish brown and yellowish brown clay loam fragipan that has reddish and grayish mottles; lower part—yellowish brown clay loam and light gray sandy clay loam having brownish and grayish mottles
Depth class: Moderately deep to a fragipan
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of $1^1/_2$ to 3 feet from December through April
Slope: 0 to 2 percent
Parent material: Loamy alluvial sediments

Malbis
Surface layer: Brown fine sandy loam
Subsurface layer: Yellowish brown fine sandy loam
Subsoil: Upper part—yellowish brown loam; next part—yellowish brown loam that has brownish and reddish mottles and masses of nodular plinthite; lower part—yellowish brown loam that has grayish and reddish mottles and has masses of nodular plinthite
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: Perched, at a depth of $2^1/_2$ to 4 feet from December through March
Slope: 1 to 5 percent
Parent material: Loamy alluvial sediments

Smithdale
Surface layer: Brown sandy loam
Subsurface layer: Strong brown sandy loam
Subsoil: Upper part—yellowish red and red sandy clay loam; lower part—red and yellowish red sandy loam

Substratum: Reddish yellow loamy sand
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 15 percent
Parent material: Loamy alluvial sediments

Minor soils
- The loamy, well drained Bama soils in the slightly higher, more convex positions
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Boykin and Wadley soils on side slopes
- The somewhat poorly drained Escambia soils in slightly concave positions
- The clayey, moderately well drained Maubila soils on side slopes

Use and Management

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

Cropland
Management concerns: Savannah—wetness; Malbis and Smithdale—erodibility

Pasture and hayland
Management concerns: Savannah—wetness; Malbis and Smithdale—erodibility

Forestland
Management concerns: Savannah and Malbis—competition from undesirable plants; Smithdale—no significant concerns

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

6. Lucedale-Bama-Smithdale

Dominantly nearly level to strongly sloping, well drained soils that have a loamy surface layer and subsoil; on high terraces

Setting

Location in the survey area: Western and eastern parts of the county, generally parallel to the Alabama and Tombigbee Rivers
Landform: High terraces
Landform position: Lucedale, Bama, and Malbis—summits and side slopes; Smithdale—side slopes
Slope: 0 to 15 percent

Composition

Percent of the survey area: 5
Lucedale soils: 35 percent
Bama soils: 25 percent
Smithdale soils: 15 percent
Malbis soils: 10 percent
Minor soils: 15 percent, including Bibb, Boykin, Brantley, Iuka, Luverne, Okeelala, and Wadley soils

Soil Characteristics

Lucedale
Surface layer: Dark reddish brown sandy loam

Subsoil: Upper part—dark reddish brown sandy clay loam; lower part—dark 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 2 percent
Parent material: Loamy alluvial sediments

Bama
Surface layer: Dark grayish brown fine sandy loam
Subsoil: Upper part—yellowish red sandy clay loam; next part—red sandy clay loam; lower part—dark red sandy clay loam
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 5 percent
Parent material: Loamy alluvial sediments

Smithdale
Surface layer: Brown sandy loam
Subsurface layer: Strong brown sandy loam
Subsoil: Upper part—yellowish red and red sandy clay loam; lower part—red and yellowish red sandy loam
Substratum: Reddish yellow loamy sand
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 15 percent
Parent material: Loamy alluvial sediments

Malbis
Surface layer: Brown fine sandy loam
Subsurface layer: Yellowish brown fine sandy loam
Subsoil: Upper part—yellowish brown loam; next part—yellowish brown loam that has brownish and reddish mottles and has masses of nodular plinthite; lower part—yellowish brown loam that has grayish and reddish 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$^1/_2$ to 4 feet from December through March
Slope: 1 to 5 percent
Parent material: Loamy alluvial sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Boykin and Wadley soils on side slopes
- The clayey Brantley and loamy Okeelala soils on the lower parts of side slopes
- The clayey Luverne soils on side slopes

Use and Management

Major uses: Pasture, hayland, homesites, forestland, and wildlife habitat

Cropland
Management concerns: Lucedale—no significant concerns; Bama and Malbis—erodibility; Smithdale—erodibility and restricted use of equipment

Pasture and hayland

Management concerns: Lucedale—no significant concerns; Bama and Malbis—erodibility; Smithdale—erodibility and restricted use of equipment

Forestland

Management concerns: Lucedale and Bama—no significant concerns; Smithdale—erodibility and restricted use of equipment; Malbis—competition from undesirable plants

Urban development

Management concerns: Lucedale and Bama—no significant concerns; Smithdale—slope; Malbis—restricted permeability and wetness

Areas on Uplands Dominated by Gently Sloping to Steep, Loamy, Sandy, and Gravelly Soils

These moderately well drained to excessively drained soils have a sandy or loamy surface layer and a loamy or clayey subsoil; have thick, sandy surface and subsurface layers and a loamy subsoil; or have a very gravelly surface layer and an extremely gravelly subsoil. They make up about 25 percent of the county. Most of the acreage is forestland and is used for forest production and wildlife habitat. A small acreage is used for cultivated crops, pasture, hay, or homesites. Erosion, droughtiness, and low fertility are management concerns in areas used for crops, pasture, hay, or forestland. Slope, which limits the use of equipment in the steeper areas, and droughtiness, which increases the seedling mortality rate, are the main management concerns affecting forestland.

7. Smithdale-Wadley-Maubila

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

Setting

Location in the survey area: Central and southern parts
Landform: Ridges and hillslopes
Landform position: Summits of narrow ridges, side slopes, and knolls
Slope: 2 to 35 percent

Composition

Percent of the survey area: 13
- Smithdale soils: 30 percent
- Wadley soils: 25 percent
- Maubila soils: 20 percent
- Minor soils: 25 percent, including Bibb, Boykin, Flomaton, Iuka, Luverne, Olla, and Prim soils

Soil Characteristics

Smithdale

Surface layer: Brown loamy sand
Subsurface layer: Yellowish brown loamy sand
Subsoil: Upper part—yellowish red sandy loam; next part—red sandy clay loam; lower part—red sandy loam
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: Loamy sediments

Wadley
Surface layer: Brown loamy sand
Subsurface layer: Upper part—strong brown loamy sand; lower part—reddish yellow loamy sand
Subsoil: Yellowish red sandy loam
Depth class: Very deep
Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6 feet
Slope: 1 to 35 percent
Parent material: Sandy and loamy sediments

Maubila
Surface layer: Dark grayish brown flaggy sandy loam
Subsurface layer: Yellowish brown flaggy sandy loam
Subsoil: Upper part—strong brown clay loam that has reddish and brownish mottles; next part—mottled brownish yellow, light gray, and weak red clay; lower part—light gray clay loam that has reddish and yellowish mottles
Substratum: Mottled weak red, light gray, and brownish yellow clay
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched, at a depth of 2 to $3^1/_2$ feet from December through March
Slope: 2 to 35 percent
Parent material: Clayey marine sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy, well drained Boykin soils on shoulder slopes and on summits of narrow ridges
- The gravelly Flomaton soils on nose slopes and footslopes
- The clayey, well drained Luverne soils on the upper parts of backslopes
- The loamy, well drained Olla soils on shoulder slopes and on summits of narrow ridges
- The shallow Prim soils on the lower parts of side slopes

Use and Management

Major uses: Forestland, pasture, and wildlife habitat

Cropland
Management concerns: Smithdale and Maubila—erodibility and restricted use of equipment; Wadley—droughtiness, restricted use of equipment, and erodibility

Pasture and hayland
Management concerns: Smithdale and Maubila—erodibility and restricted use of equipment; Wadley—droughtiness, restricted use of equipment, and erodibility

Forestland
Management concerns: Smithdale—erodibility and restricted use of equipment; Wadley and Maubila—erodibility, restricted use of equipment, and seedling survival

Urban development

Management concerns: Smithdale and Wadley—slope; Maubila—shrink-swell potential, restricted permeability, wetness, and low strength

8. Smithdale-Wadley-Boykin

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

Setting

Location in the survey area: Central part
Landform: Ridges and hillslopes
Landform position: Summits of narrow ridges, side slopes, and knolls
Slope: 1 to 35 percent

Composition

Percent of the survey area: 5
- Smithdale soils: 35 percent
- Wadley soils: 30 percent
- Boykin soils: 15 percent
- Minor soils: 20 percent, including Arundel, Bama, Bibb, Brantley, Cantuche, Iuka, Luverne, Okeelala, and Saffell soils

Soil Characteristics

Smithdale

Surface layer: Brown loamy sand
Subsurface layer: Yellowish brown loamy sand
Subsoil: Upper part—yellowish red sandy loam; next part—red sandy clay loam; lower part—red sandy loam
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: Loamy sediments

Wadley

Surface layer: Brown loamy sand
Subsurface layer: Upper part—strong brown loamy sand; lower part—reddish yellow loamy sand
Subsoil: Yellowish red sandy loam
Depth class: Very deep
Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6 feet
Slope: 1 to 35 percent
Parent material: Sandy and loamy sediments

Boykin

Surface layer: Dark grayish brown loamy sand
Subsurface layer: Upper part—dark grayish brown and yellowish brown loamy sand; lower part—light yellowish brown loamy sand
Subsoil: Upper part—yellowish red sandy 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: 2 to 35 percent
Parent material: Sandy and loamy sediments

Minor soils
- The moderately deep Arundel and shallow Cantuche soils on the lower slopes
- The loamy Bama soils on summits of broad ridges
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The clayey Brantley and loamy Okeelala soils on the lower slopes
- The clayey Luverne soils on backslopes
- The gravelly Saffell soils on nose slopes and footslopes

Use and Management

Major uses: Forestland, pasture, and wildlife habitat

Cropland
Management concerns: Smithdale—erodibility and restricted use of equipment; Boykin and Wadley—droughtiness, restricted use of equipment, and erodibility

Pasture and hayland
Management concerns: Smithdale—erodibility and restricted use of equipment; Boykin and Wadley—droughtiness, restricted use of equipment, and erodibility

Forestland
Management concerns: Smithdale—erodibility and restricted use of equipment; Boykin and Wadley—erodibility, restricted use of equipment, and seedling survival

Urban development
Management concerns: Slope

9. Smithdale-Flomaton-Wadley

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

Setting

Location in the survey area: Parallel to Bassett Creek and its major tributaries in the central part of the county
Landform: Ridges, hillslopes, and high terraces
Landform position: Smithdale—summits of narrow ridges and on side slopes; Flomaton and Wadley—shoulder slopes, nose slopes, and footslopes
Slope: 2 to 35 percent

Composition

Percent of the survey area: 7
Smithdale soils: 35 percent
Flomaton soils: 20 percent
Wadley soils: 15 percent
Minor soils: 30 percent, including Bama, Bibb, Boykin, Brantley, Iuka, Luverne, Okeelala, Prim, and Saffell soils

Soil Characteristics

Smithdale
Surface layer: Brown loamy sand
Subsurface layer: Yellowish brown loamy sand

Subsoil: Upper part—yellowish red sandy loam; next part—red sandy clay loam; lower part—red sandy loam
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: Loamy sediments

Flomaton
Surface layer: Very dark grayish brown and brown very gravelly loamy sand
Subsurface layer: Strong brown extremely gravelly coarse sand
Subsoil: Upper part—yellowish red extremely gravelly loamy coarse sand; next part—red extremely gravelly loamy coarse sand; lower part—yellowish red extremely gravelly coarse sand
Substratum: Stratified white and very pale brown very gravelly sand
Depth class: Very deep
Drainage class: Excessively drained
Depth to seasonal high water table: More than 6 feet
Slope: 10 to 25 percent
Parent material: Stratified gravelly and sandy alluvial sediments

Wadley
Surface layer: Brown loamy sand
Subsurface layer: Upper part—strong brown loamy sand; lower part—reddish yellow loamy sand
Subsoil: Yellowish red sandy loam
Depth class: Very deep
Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6 feet
Slope: 1 to 35 percent
Parent material: Sandy and loamy sediments

Minor soils
- The loamy Bama soils on summits of ridges and terraces
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Boykin soils on summits of narrow ridges and on shoulder slopes
- The clayey Brantley and loamy Okeelala soils on the lower slopes
- The clayey Luverne soils on backslopes
- The shallow Prim soils on the lower slopes
- The gravelly Saffell soils on nose slopes and footslopes

Use and Management

Major uses: Forestland, pasture, and wildlife habitat

Cropland
Management concerns: Smithdale—erodibility and restricted use of equipment; Flomaton and Wadley—droughtiness, restricted use of equipment, and erodibility

Pasture and hayland
Management concerns: Smithdale—erodibility and restricted use of equipment; Flomaton and Wadley—droughtiness, restricted use of equipment, and erodibility

Forestland
Management concerns: Smithdale—erodibility and restricted use of equipment; Flomaton and Wadley—erodibility, restricted use of equipment, and seedling survival

Urban development
Management concerns: Slope

Areas on Uplands Dominated by Shallow to Deep, Gently Sloping to Very Steep, Loamy and Clayey Soils Overlying Limestone and Very Deep, Loamy and Clayey Soils

These well drained soils have a very cobbly surface layer and an extremely cobbly substratum overlying interbedded limestone and chalk; have a clayey surface layer and a clayey subsoil overlying interbedded limestone and chalk; or have a loamy surface layer and a loamy or clayey subsoil. They make up about 21 percent of the county. Most of the acreage is forestland and is used for forest production and wildlife habitat. A small acreage is used for pasture, hay, or homesites. The main management concerns affecting forestland are the slope and the clayey textures, which limit the use of equipment during wet periods. A significant acreage is unsuited to pine trees because of excessive alkalinity. In some areas the depth to rock and the high shrink-swell potential are concerns affecting homesites, roads, and streets. Erosion is a management concern in areas used for crops and pasture.

10. Prim-Suggsville-Brantley

Dominantly gently sloping to very steep, shallow, alkaline soils that have a surface layer of very cobbly clay loam and a substratum of extremely cobbly sandy loam; deep, acid soils that have a clayey surface layer and subsoil; and very deep soils that have a loamy surface layer and a clayey or loamy subsoil; on uplands

Setting

Location in the survey area: Central and southwestern parts
Landform: Ridges and hillslopes
Landform position: Prim—summits, shoulder slopes, and benches; Suggsville—foot slopes and the lower parts of backslopes; Brantley and Okeelala—summits of narrow ridges and backslopes
Slope: 2 to 60 percent

Composition

Percent of the survey area: 9
Prim soils: 35 percent
Suggsville soils: 20 percent
Brantley soils: 15 percent
Okeelala soils: 10 percent
Minor soils: 20 percent, including Bibb, Iuka, Lorman, Toxey, Wadley, and Watsonia soils and Eutrudepts

Soil Characteristics

Prim
Surface layer: Black very cobbly clay loam
Substratum: Upper part—olive gray extremely cobbly sandy loam; lower part—light gray chalk interbedded with lenses of hard limestone
Depth class: Shallow
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 60 percent
Parent material: Loamy residuum weathered from interbedded limestone and chalk

Suggsville
Surface layer: Very dark brown clay
Subsurface layer: Brown and reddish brown clay
Subsoil: Upper part—yellowish red and red clay; next part—mottled strong brown and yellowish red clay; lower part—strong brown clay that has reddish mottles
Substratum: Interbedded light gray limestone and chalk
Depth class: Deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 40 percent
Parent material: Clayey sediments and the underlying interbedded limestone and chalk

Brantley
Surface layer: Dark brown fine sandy loam
Subsurface layer: Dark yellowish brown fine sandy loam
Subsoil: Upper part—red clay; next part—red clay loam; lower part—mottled yellowish red, red, and light yellowish brown loam
Substratum: Upper part—reddish brown loam that has reddish and yellowish mottles; lower part—mottled yellowish red and pale yellow silt loam
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 60 percent
Parent material: Clayey and loamy marine sediments

Okeelala
Surface layer: Brown fine sandy loam
Subsurface layer: Brown loamy fine sand
Subsoil: Upper part—strong brown sandy loam and red sandy clay loam; lower part—yellowish red sandy loam
Substratum: Upper part—yellowish red loamy sand; lower part—strong brown loamy sand that has yellowish mottles
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 60 percent
Parent material: Loamy and sandy marine sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The variable Eutrudepts on benches, footslopes, and the lower parts of backslopes
- The clayey, moderately well drained Lorman and Toxey soils on ridges, on benches, and on the lower parts of backslopes
- The sandy Wadley soils on summits and shoulder slopes of high ridges
- The shallow, clayey Watsonia soils on benches and shoulder slopes

Use and Management

Major uses: Forestland, wildlife habitat, and pasture

Cropland
Management concerns: Prim—restricted use of equipment, erodibility, and rooting depth; Suggsville—restricted use of equipment, erodibility, and tilth; Brantley and Okeelala—restricted use of equipment and erodibility

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

Forestland
Management concerns: Prim and Suggsville—erodibility, restricted use of equipment, and seedling survival; Brantley and Okeelala—restricted use of equipment and erodibility

Urban development
Management concerns: Prim—depth to rock, slope, and large stones; Suggsville—restricted permeability, shrink-swell potential, and slope; Brantley—restricted permeability and slope; Okeelala—slope

11. Okeelala-Brantley-Smithdale

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

Setting

Location in the survey area: Central and southeastern parts
Landform: Ridges and hillslopes
Landform position: Brantley and Okeelala—summits of narrow ridges and on side slopes; Smithdale—summits of high ridges and on knolls
Slope: 2 to 60 percent

Composition

Percent of the survey area: 12
Okeelala soils: 30 percent
Brantley and similar soils: 30 percent
Smithdale soils: 15 percent
Minor soils: 25 percent, including Bibb, Boykin, Flomaton, Iuka, Lorman, Prim, Toxey, Wadley, and Watsonia soils

Soil Characteristics

Okeelala
Surface layer: Brown fine sandy loam
Subsurface layer: Brown loamy fine sand
Subsoil: Upper part—strong brown sandy loam and red sandy clay loam; lower part—yellowish red sandy loam
Substratum: Upper part—yellowish red loamy sand; lower part—strong brown loamy sand that has yellowish mottles
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 60 percent
Parent material: Loamy and sandy marine sediments

Brantley
Surface layer: Dark brown fine sandy loam
Subsurface layer: Dark yellowish brown fine sandy loam
Subsoil: Upper part—red clay; next part—red clay loam; lower part—mottled yellowish red, red, and light yellowish brown loam
Substratum: Upper part—reddish brown loam that has reddish and yellowish mottles; lower part—mottled yellowish red and pale yellow silt loam
Depth class: Very deep
Drainage class: Well drained

Depth to seasonal high water table: More than 6 feet
Slope: 2 to 60 percent
Parent material: Clayey and loamy marine sediments

Smithdale
Surface layer: Brown loamy sand
Subsurface layer: Yellowish brown loamy sand
Subsoil: Upper part—yellowish red sandy loam; next part—red sandy clay loam; lower part—red sandy loam
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: Loamy sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Boykin soils on summits and shoulder slopes of high ridges
- The clayey, moderately well drained Lorman and Toxey soils on footslopes and low ridges
- The shallow Prim and Watsonia soils on benches and the lower slopes
- The sandy Wadley and gravelly Flomaton soils on shoulder slopes and nose slopes

Use and Management

Major uses: Forestland, wildlife habitat, and pasture

Cropland
Management concerns: Restricted use of equipment and erodibility

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

Forestland
Management concerns: Okeelala and Smithdale—erodibility and restricted use of equipment; Brantley—erodibility, restricted use of equipment, and competition from undesirable plants

Urban development
Management concerns: Okeelala and Smithdale—slope; Brantley—restricted permeability, slope, and low strength

Areas on Uplands Dominated by Very Deep, Nearly Level to Very Steep, Clayey, Loamy, and Sandy Soils and Shallow to Deep, Clayey and Loamy Soils Overlying Siltstone, Claystone, or Shale

These well drained to somewhat excessively drained soils have a loamy surface layer and a loamy or clayey subsoil; have thick, sandy surface and subsurface layers and a loamy subsoil; or have a very channery surface layer and a claystone substratum. They make up about 26 percent of the county. Most of the acreage is forestland and is used for forest production and wildlife habitat. A significant acreage is used for homesites or other urban development, pasture, and hay. The main management concerns affecting forestland are the slope; clayey textures, which limit the use of equipment during wet periods; erodibility; and plant competition. In some areas the depth to rock, high shrink-swell potential, and restricted permeability are concerns affecting homesites, roads, and streets. Erosion is a management concern in areas used for crops and pasture.

12. Luverne-Smithdale-Wadley

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

Setting

Location in the survey area: Northern and western parts
Landform: Ridges and hillslopes
Landform position: Luverne and Smithdale—summits of narrow ridges and on backslopes; Wadley—shoulder slopes and footslopes
Slope: 1 to 35 percent

Composition

Percent of the survey area: 8
Luverne soils: 35 percent
Smithdale soils: 25 percent
Wadley soils: 20 percent
Minor soils: 20 percent, including Arundel, Bibb, Boykin, Brantley, Cantuche, and Iuka soils

Soil Characteristics

Luverne
Surface layer: Brown sandy loam
Subsoil: Upper part—red clay; lower part—yellowish red clay loam
Substratum: Thinly stratified, brownish, grayish, and reddish fine sandy loam and loam
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

Smithdale
Surface layer: Brown loamy sand
Subsurface layer: Yellowish brown loamy sand
Subsoil: Upper part—yellowish red sandy loam; next part—red sandy clay loam; lower part—red sandy loam
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: Loamy sediments

Wadley
Surface layer: Brown loamy sand
Subsurface layer: Upper part—strong brown loamy sand; lower part—reddish yellow loamy sand
Subsoil: Yellowish red sandy loam
Depth class: Very deep
Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6 feet

Slope: 1 to 35 percent
Parent material: Sandy and loamy sediments

Minor soils
- The moderately deep Arundel and shallow Cantuche soils on the lower parts of side slopes and on footslopes
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The well drained, sandy Boykin soils on shoulder slopes
- The clayey Brantley soils on the lower slopes

Use and Management

Major uses: Forestland, pasture, and wildlife habitat

Cropland
Management concerns: Luverne and Smithdale—erodibility and restricted use of equipment; Wadley—droughtiness, restricted use of equipment, and erodibility

Pasture and hayland
Management concerns: Luverne and Smithdale—erodibility and restricted use of equipment; Wadley—droughtiness, restricted use of equipment, and erodibility

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

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

13. Arundel-Cantuche-Luverne

Dominantly gently sloping to very steep, moderately deep soils that have a loamy surface layer and a clayey subsoil; shallow soils that have a surface layer of very channery loam overlying weathered bedrock; and very deep soils that have a loamy surface layer and a clayey or loamy subsoil; on uplands

Setting

Location in the survey area: Northern part
Landform: Ridges, knolls, and hillslopes
Landform position: Arundel and Cantuche—summits of narrow ridges, on benches, and on side slopes; Luverne and Smithdale—shoulder slopes, backslopes, and footslopes
Slope: 2 to 60 percent

Composition

Percent of the survey area: 8
Arundel and similar soils: 30 percent
Cantuche and similar soils: 25 percent
Luverne and similar soils: 15 percent
Smithdale and similar soils: 10 percent
Minor soils: 20 percent, including Bibb, Brantley, Boykin, Iuka, Rayburn, and Wadley soils

Soil Characteristics

Arundel
Surface layer: Very dark gray loam

Subsoil: Upper part—strong brown clay; lower part—strong brown clay that has reddish mottles
Substratum: Upper part—yellowish brown very cobbly clay loam; lower part—pale olive claystone
Depth class: Moderately deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 60 percent
Parent material: Clayey residuum weathered from siltstone or claystone

Cantuche
Surface layer: Very dark gray very channery loam and grayish brown extremely channery loam
Substratum: Grayish brown and light yellowish brown claystone
Depth class: Shallow
Drainage class: Well drained
Depth to seasonal high water table: More than 6 feet
Slope: 2 to 60 percent
Parent material: Loamy residuum weathered from siltstone or claystone

Luverne
Surface layer: Brown sandy loam
Subsoil: Upper part—red clay; lower part—yellowish red clay loam
Substratum: Thinly stratified, brownish, grayish, and reddish fine sandy loam and loam
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

Smithdale
Surface layer: Brown loamy sand
Subsurface layer: Yellowish brown loamy sand
Subsoil: Upper part—yellowish red sandy loam; next part—red sandy clay loam; lower part—red sandy loam
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: Loamy sediments

Minor soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Boykin and Wadley soils on shoulder slopes and summits of high ridges and knolls
- The very deep, clayey Brantley soils on the lower parts of side slopes
- The deep, clayey Rayburn soils on footslopes and toeslopes

Use and Management

Major uses: Forestland, wildlife habitat, and pasture

Cropland
Management concerns: Arundel, Luverne, and Smithdale—restricted use of equipment and erodibility; Cantuche—rooting depth, restricted use of equipment, and erodibility

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

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

Urban development
Management concerns: Arundel—slope, restricted permeability, shrink-swell potential, and depth to rock; Cantuche—depth to rock, slope, and large stones; Luverne—restricted permeability, shrink-swell potential, and slope; Smithdale—slope

14. Luverne-Halso

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

Setting

Location in the survey area: Northern part
Landform: Ridges and hillslopes
Landform position: Luverne—summits of narrow ridges, shoulder slopes, and backslopes; Halso—summits of broad ridges, saddles, and the lower parts of backslopes
Slope: 2 to 35 percent

Composition

Percent of the survey area: 10
Luverne soils: 60 percent
Halso soils: 15 percent
Minor soils: 25 percent, including Arundel, Bibb, Brantley, Iuka, Izagora, and Smithdale soils

Soil Characteristics

Luverne
Surface layer: Brown sandy loam
Subsoil: Upper part—red clay; lower part—yellowish red clay loam
Substratum: Thinly stratified, brownish, grayish, and reddish fine sandy loam and loam
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

Halso
Surface layer: Dark brown fine sandy loam
Subsoil: Upper part—yellowish red and red clay that has reddish and grayish mottles; next part—reddish brown clay that has grayish and reddish mottles; lower part—dark grayish brown silty clay that has reddish mottles
Substratum: Upper part—grayish brown silty clay that has reddish and yellowish mottles; lower part—light brownish gray clayey shale
Depth class: Deep
Drainage class: Moderately well drained

Depth to seasonal high water table: More than 6 feet
Slope: 2 to 15 percent
Parent material: Clayey marine sediments

Minor soils
- The moderately deep Arundel soils on high ridges and knolls
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The very deep Brantley soils on the lower parts of side slopes
- The moderately well drained, loamy Izagora soils on toeslopes and low terraces
- The well drained, loamy Smithdale soils on summits of high ridges and knolls

Use and Management

Major uses: Forestland, wildlife habitat, and pasture

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, and competition from undesirable plants

Urban development
Management concerns: Restricted permeability, shrink-swell potential, slope, 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, 5 to 15 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. Arundel-Cantuche complex, 15 to 35 percent slopes, 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. Iuka, Bibb, and Mantachie 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. Urban land is an example.

Table 5 gives the acreage and proportionate extent of each map unit. 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 or miscellaneous areas.

ArC—Arundel-Cantuche complex, 2 to 10 percent slopes

Setting

Landform: Narrow ridges and knolls
Landform position: Arundel—summits, saddles, and side slopes; Cantuche—summits and shoulder slopes
Shape of areas: Irregular
Size of areas: 5 to 60 acres

Composition

Arundel and similar soils: 45 percent
Cantuche and similar soils: 40 percent
Dissimilar soils: 15 percent

Typical Profiles

Arundel
Surface layer:
0 to 5 inches—very dark gray loam

Subsoil:
5 to 18 inches—strong brown clay
18 to 32 inches—strong brown clay that has reddish mottles

Substratum:
32 to 39 inches—yellowish brown very cobbly clay loam
39 to 80 inches—weathered, pale olive claystone

Cantuche
Surface layer:
0 to 4 inches—very dark gray very channery loam
4 to 10 inches—grayish brown extremely channery loam

Substratum:
10 to 80 inches—weathered, grayish brown and light yellowish brown claystone

Soil Properties and Qualities

Depth class: Arundel—moderately deep; Cantuche—shallow
Drainage class: Well drained
Permeability: Arundel—very slow; Cantuche—moderate
Available water capacity: Arundel—moderate; Cantuche—very low
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Arundel—high; Cantuche—low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: Arundel—20 to 40 inches to weathered claystone or siltstone; Cantuche—10 to 20 inches to weathered claystone or siltstone

Minor Components

Dissimilar components
- The very deep, sandy Boykin and Wadley soils on knolls
- The very deep Luverne and Smithdale soils on high knolls
- The deep Rayburn soils in saddles
- Scattered areas of rock outcrop

Similar soils
- Scattered areas of clayey, well drained soils that have more rock fragments in the subsoil than the Arundel soils
- Scattered areas of shallow soils that have fewer rock fragments in the subsoil or substratum than the Cantuche soils

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, restricted rooting depth, droughtiness, and the complex topography. A site that has better suited soils should be selected.

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 rooting depth
Management measures and considerations:
- This map unit is difficult to manage economically for pasture and hayland because of the shallow rooting depth of the Cantuche soil and the moderately deep rooting depth of the Arundel soil.
- 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: Arundel—very high for loblolly pine; Cantuche—high for loblolly pine
Management concerns: Arundel—equipment use and seedling survival; Cantuche—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 in areas of the Arundel soil 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.
- Planting when the soils are expected to be moist for an extended period can increase the seedling survival rate.

Wildlife habitat
Potential of the Arundel soil to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor
Potential of the Cantuche soil to support habitat for: Openland wildlife—poor; forestland wildlife and wetland wildlife—very poor
Management concerns: Equipment use, droughtiness, 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: Arundel—shrink-swell potential and depth to rock; Cantuche—depth to rock and large stones
Management measures and considerations:
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to strengthen foundations and prevents the damage caused by shrinking and swelling in areas of Arundel soil.
- The soft bedrock underlying the soils 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: Arundel—depth to rock and restricted permeability; Cantuche—depth to rock and large stones
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: Arundel—shrink-swell potential and low strength; Cantuche—depth to rock and large stones
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 subclass: Arundel—4e; Cantuche—7s
Prime farmland status: Not prime farmland
Hydric soil status: Arundel and Cantuche—not hydric

ArF—Arundel-Cantuche complex, 15 to 35 percent slopes

Setting

Landform: Hillslopes
Landform position: Arundel—side slopes; Cantuche—nose slopes, backslopes, and shoulder slopes
Shape of areas: Irregular
Size of areas: 20 to 800 acres

Composition

Arundel and similar soils: 45 percent
Cantuche and similar soils: 45 percent
Dissimilar soils: 10 percent

Typical Profiles

Arundel
Surface layer:
0 to 5 inches—very dark gray loam

Subsoil:
5 to 18 inches—strong brown clay
18 to 32 inches—strong brown clay that has reddish mottles

Substratum:
32 to 39 inches—yellowish brown very cobbly clay loam
39 to 80 inches—weathered, pale olive claystone

Cantuche
Surface layer:
0 to 4 inches—very dark gray very channery loam
4 to 10 inches—grayish brown extremely channery loam

Substratum:
10 to 80 inches—weathered, grayish brown and light yellowish brown claystone

Soil Properties and Qualities

Depth class: Arundel—moderately deep; Cantuche—shallow
Drainage class: Well drained

Permeability: Arundel—very slow; Cantuche—moderate
Available water capacity: Arundel—moderate; Cantuche—very low
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Arundel—high; Cantuche—low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: Arundel—20 to 40 inches to weathered claystone or siltstone; Cantuche—10 to 20 inches to weathered claystone or siltstone

Minor Components

Dissimilar components
- Scattered areas of Arundel and Cantuche soils that have a slope of less than 15 percent or more than 35 percent
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The very deep, sandy Boykin and Wadley soils on knolls and foot slopes
- The very deep Luverne and Smithdale soils on narrow ridges, shoulder slopes, and footslopes
- The deep Rayburn soils in saddles and on footslopes
- Scattered areas of rock outcrop

Similar soils
- Scattered areas of clayey, well drained soils that have more rock fragments in the subsoil than the Arundel soils
- Scattered areas of shallow soils that have fewer rock fragments in the subsoil or substratum than the Cantuche soils

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, restricted 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: Arundel—very high for loblolly pine; Cantuche—high for loblolly pine

Management concerns: Arundel—erodibility and equipment use; Cantuche—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 in areas of the Arundel soil 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.
- Planting when the soils are expected to be moist for an extended period can increase the seedling survival rate.

Wildlife habitat
Potential of the Arundel soil to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor
Potential of the Cantuche soil to support habitat for: Openland wildlife—poor; forestland wildlife and wetland wildlife—very poor
Management concerns: Equipment use, droughtiness, 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: Arundel—slope, shrink-swell potential, and depth to rock; Cantuche—slope, large stones, 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 strengthen foundations and prevents the damage caused by shrinking and swelling in areas of Arundel soil.
- The soft bedrock underlying the soils 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: Arundel—restricted permeability, slope, and depth to rock; Cantuche—slope, large stones, 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: Arundel—low strength, slope, and shrink-swell potential; Cantuche—slope, large stones, and depth to rock
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 in areas of the Arundel soil.
- 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 Arundel soil.
- The soft bedrock underlying the soils 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 subclass: Arundel—7e; Cantuche—7s
Prime farmland status: Not prime farmland
Hydric soil status: Arundel and Cantuche—not hydric

ArG—Arundel-Cantuche complex, 35 to 60 percent slopes

Setting

Landform: Hillslopes
Landform position: Arundel—side slopes; Cantuche—nose slopes, backslopes, and shoulder slopes
Shape of areas: Irregular
Size of areas: 20 to 400 acres

Composition

Arundel and similar soils: 45 percent
Cantuche and similar soils: 45 percent
Dissimilar soils: 10 percent

Typical Profiles

Arundel
Surface layer:
0 to 5 inches—very dark gray loam

Subsoil:
5 to 18 inches—strong brown clay
18 to 32 inches—strong brown clay that has reddish mottles

Substratum:
32 to 39 inches—yellowish brown very cobbly clay loam
39 to 80 inches—weathered, pale olive claystone

Cantuche
Surface layer:
0 to 4 inches—very dark gray very channery loam
4 to 10 inches—grayish brown extremely channery loam

Substratum:
10 to 80 inches—weathered, grayish brown and light yellowish brown claystone

Soil Properties and Qualities

Depth class: Arundel—moderately deep; Cantuche—shallow
Drainage class: Well drained
Permeability: Arundel—very slow; Cantuche—moderate
Available water capacity: Arundel—moderate; Cantuche—very low
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Arundel—high; Cantuche—low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: Arundel—20 to 40 inches to weathered claystone or siltstone; Cantuche—10 to 20 inches to weathered claystone or siltstone

Minor Components

Dissimilar components
- Scattered areas of Arundel and Cantuche soils that have a slope of less than 35 percent or more than 60 percent
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The very deep, sandy Boykin and Wadley soils on knolls and foot slopes
- The very deep Luverne and Smithdale soils on narrow ridges, shoulder slopes, and footslopes
- The deep Rayburn soils on footslopes
- Scattered areas of rock outcrop

Similar soils
- Scattered areas of clayey, well drained soils that have more rock fragments in the subsoil than the Arundel soils
- Scattered areas of shallow soils that have fewer rock fragments in the subsoil or substratum than the Cantuche soils

Land Use

Dominant uses: Forestland and wildlife habitat

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

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

Forestland
Suitability: Poorly suited (fig. 5)
Productivity class: Arundel—very high for loblolly pine; Cantuche—high for loblolly pine
Management concerns: Arundel—erodibility and equipment use; Cantuche—equipment use and seedling survival
Management measures and considerations:
- Restricting logging during wet periods minimizes rutting and the root damage caused by compaction.

Figure 5.—An area of Arundel-Cantuche complex, 35 to 60 percent slopes, supporting a mixed stand of pine and hardwood. The curved and twisted tree trunks are a result of downslope movement and the compensating tree growth.

- Unsurfaced roads may be impassable during wet periods in areas of the Arundel soil 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.
- Using cable logging methods helps to minimize construction of roads and trails, especially in areas where the slope exceeds about 50 percent.
- 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.
- Planting when the soils are moist for an extended period can increase the seedling survival rate.

Wildlife habitat

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

Potential of the Cantuche soil to support habitat for: Openland wildlife—poor; forestland wildlife and wetland wildlife—very poor

Management concerns: Equipment use, droughtiness, 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.
- 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 slope and the depth to rock. A site that has better suited soils should be selected.

Interpretive Groups

Land capability subclass: Arundel—7e; Cantuche—7s

Prime farmland status: Not prime farmland

Hydric soil status: Arundel and Cantuche—not hydric

BaB—Bama fine sandy loam, 2 to 5 percent slopes

Setting

Landform: High stream terraces; ridges

Landform position: Summits, side slopes, and shoulder slopes

Shape of areas: Oblong or irregular

Size of areas: 10 to 500 acres

Composition

Bama and similar soils: 90 percent

Dissimilar soils: 10 percent

Typical Profile

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

Subsoil:
7 to 12 inches—yellowish red sandy clay loam that has streaks of brownish fine sandy loam
12 to 24 inches—yellowish red sandy clay loam
24 to 63 inches—red sandy clay loam
63 to 87 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
- Bama soils that have a slope of less than 2 percent or more than 5 percent
- The sandy Boykin and Wadley soils on small knolls
- Scattered areas of Malbis soils, which have brownish colors and accumulations of plinthite in the subsoil
- Areas of moderately well drained or somewhat poorly drained soils in shallow depressions

Similar soils
- Scattered areas of Bama soils that have gravelly strata below a depth of 60 inches
- Scattered areas of Lucedale soils, which are dark red throughout the subsoil
- Scattered areas of Smithdale soils, which have a significant decrease in clay content in the lower part of the subsoil

Land Use

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

Cropland
Suitability: Well suited
Commonly grown crops: Corn, cotton, peanuts, soybeans, 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 (fig. 6)

Figure 6.—Bahiagrass hay in an area of Bama fine sandy loam, 2 to 5 percent slopes. This very deep, well drained soil is well suited to pasture and hay.

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 subclass: 2e
Prime farmland status: Prime farmland
Hydric soil status: Bama—not hydric

BoB—Brantley-Okeelala complex, 2 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Summits and shoulder slopes
Shape of areas: Irregular
Size of areas: 5 to 200 acres

Composition

Brantley and similar soils: 60 percent
Okeelala and similar soils: 30 percent
Dissimilar soils: 10 percent

Typical Profiles

Brantley
Surface layer:
0 to 3 inches—dark brown fine sandy loam
3 to 11 inches—dark yellowish brown fine sandy loam

Subsoil:
11 to 21 inches—red clay
21 to 43 inches—red clay loam
43 to 56 inches—mottled yellowish red, red, and light yellowish brown loam

Substratum:
56 to 68 inches—reddish brown loam that has reddish and yellowish mottles
68 to 80 inches—mottled yellowish red and pale yellow silt loam

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

Subsurface layer:
3 to 13 inches—brown loamy fine sand

Subsoil:
13 to 18 inches—strong brown sandy loam
18 to 33 inches—red sandy clay loam
33 to 58 inches—yellowish red sandy loam

Substratum:
58 to 65 inches—yellowish red loamy sand
65 to 80 inches—strong brown loamy sand that has yellowish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Brantley—moderately slow; Okeelala—moderate
Available water capacity: Brantley—high; Okeelala—moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Brantley—moderate; Okeelala—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 components
- The sandy Boykin soils on small knolls
- Brantley and Okeelala soils that have a slope of more than 5 percent
- Scattered areas of limestone outcrop
- The clayey, moderately well drained Lorman soils in saddles

Similar soils
- Scattered areas of well drained, clayey soils that have an alkaline substratum

Land Use

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

Cropland
Suitability: Well suited
Commonly grown crops: Corn 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: Brantley—equipment use and competition from undesirable plants; Okeelala—no significant limitations
Management measures and considerations:
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the Brantley soil.
- 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.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

Dwellings
Suitability: Brantley—suited; Okeelala—well suited
Management concerns: Brantley—shrink-swell potential; Okeelala—no significant limitations affect dwellings.
Management measures and considerations:
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to strengthen foundations and prevents the damage caused by shrinking and swelling in areas of the Brantley soil.

Septic tank absorption fields
Suitability: Brantley—poorly suited; Okeelala—well suited
Management concerns: Brantley—restricted permeability; Okeelala—no significant limitations
Management measures and considerations:
- Installing distribution lines on the contour and increasing the size of the absorption field improve the performance of the system in areas of the Brantley soil.
- Installing 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: Brantley—suited; Okeelala—well suited
Management concerns: Brantley—low strength and shrink-swell potential; Okeelala—no significant limitations
Management measures and considerations:
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength and moderate shrink-swell potential of the natural soil material in areas of the Brantley soil.

Interpretive Groups

Land capability subclass: Brantley—3e; Okeelala—2e
Prime farmland status: Prime farmland
Hydric soil status: Brantley and Okeelala—not hydric

BoD—Brantley-Okeelala complex, 5 to 15 percent slopes

Setting

Landform: Hillslopes
Landform position: Brantley—backslopes; Okeelala—nose slopes, footslopes, and shoulder slopes
Shape of areas: Irregular
Size of areas: 10 to 1,200 acres

Composition

Brantley and similar soils: 50 percent
Okeelala and similar soils: 40 percent
Dissimilar soils: 10 percent

Typical Profiles

Brantley
Surface layer:
0 to 3 inches—dark brown fine sandy loam
3 to 11 inches—dark yellowish brown fine sandy loam

Subsoil:
11 to 21 inches—red clay
21 to 43 inches—red clay loam
43 to 56 inches—mottled yellowish red, red, and light yellowish brown loam

Substratum:
56 to 68 inches—reddish brown loam that has reddish and yellowish mottles
68 to 80 inches—mottled yellowish red and pale yellow silt loam

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

Subsurface layer:
3 to 13 inches—brown loamy fine sand

Subsoil:
13 to 18 inches—strong brown sandy loam
18 to 33 inches—red sandy clay loam
33 to 58 inches—yellowish red sandy loam

Substratum:
58 to 65 inches—yellowish red loamy sand
65 to 80 inches—strong brown loamy sand that has yellowish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Brantley—moderately slow; Okeelala—moderate
Available water capacity: Brantley—high; Okeelala—moderate
Depth to seasonal high water table: More than 6 feet

Shrink-swell potential: Brantley—moderate; Okeelala—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 components
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Boykin soils on summits and shoulder slopes of narrow ridges
- Brantley and Okeelala soils that have a slope of less than 5 percent or more than 15 percent
- Scattered areas of limestone outcrop
- The moderately well drained, clayey Lorman soils on footslopes

Similar soils
- Scattered areas of well drained, clayey soils that have an alkaline substratum

Land Use

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

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn and truck crops
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Terraces and diversions, 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.
- 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: Brantley—equipment use, erodibility, and competition from undesirable plants; Okeelala—no significant limitations
Management measures and considerations:
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the Brantley 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.
- 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.

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: Brantley—slope and shrink-swell potential; Okeelala—slope

Management measures and considerations:

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to strengthen foundations and prevents the damage caused by shrinking and swelling in areas of the Brantley soil.
- 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.

Septic tank absorption fields

Suitability: Poorly suited

Management concerns: Brantley—restricted permeability and slope; Okeelala—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 Brantley soil.
- Installing distribution lines during dry periods minimizes smearing and sealing of trench walls 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: Brantley—low strength, shrink-swell potential, and slope; Okeelala—slope

Management measures and considerations:

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength and moderate shrink-swell potential of the natural soil material in areas of the Brantley 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 subclass: Brantley—6e; Okeelala—4e
Prime farmland status: Not prime farmland
Hydric soil status: Brantley and Okeelala—not hydric

BoG—Brantley-Okeelala complex, 35 to 60 percent slopes

Setting

Landform: Hillslopes
Landform position: Brantley—backslopes; Okeelala—nose slopes, footslopes, and shoulder slopes
Shape of areas: Irregular
Size of areas: 10 to 800 acres

Composition

Brantley and similar soils: 60 percent
Okeelala and similar soils: 25 percent
Dissimilar soils: 15 percent

Typical Profiles

Brantley
Surface layer:
0 to 3 inches—dark brown fine sandy loam
3 to 11 inches—dark yellowish brown fine sandy loam

Subsoil:
11 to 21 inches—red clay
21 to 43 inches—red clay loam
43 to 56 inches—mottled yellowish red, red, and light yellowish brown loam

Substratum:
56 to 68 inches—reddish brown loam that has reddish and yellowish mottles
68 to 80 inches—mottled yellowish red and pale yellow silt loam

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

Subsurface layer:
3 to 13 inches—brown loamy fine sand

Subsoil:
13 to 18 inches—strong brown sandy loam
18 to 33 inches—red sandy clay loam
33 to 58 inches—yellowish red sandy loam

Substratum:
58 to 65 inches—yellowish red loamy sand
65 to 80 inches—strong brown loamy sand that has yellowish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Brantley—moderately slow; Okeelala—moderate

Available water capacity: Brantley—high; Okeelala—moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Brantley—moderate; Okeelala—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 components
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Boykin and Wadley soils on summits and shoulder slopes of narrow ridges
- Brantley and Okeelala soils that have a slope of less than 35 percent or more than 60 percent
- Scattered areas of limestone outcrop
- The moderately well drained, clayey Lorman soils on footslopes
- The loamy-skeletal Saffell and sandy-skeletal Flomaton soils on shoulder slopes

Similar soils
- Scattered areas of well drained, clayey or loamy soils that have an alkaline substratum
- Scattered areas of clayey or loamy soils that have less than 35 percent base saturation in the lower part of the subsoil or 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 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: Brantley—erodibility, equipment use, and competition from undesirable plants; Okeelala—erodibility and equipment use
Management measures and considerations:
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the Brantley 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.
- 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 the 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 subclass: 7e

Prime farmland status: Not prime farmland

Hydric soil status: Brantley and Okeelala—not hydric

CaA—Cahaba fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Low stream terraces

Landform position: Convex slopes on summits

Shape of areas: Oblong

Size of areas: 5 to 150 acres

Composition

Cahaba and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 8 inches—dark yellowish brown fine sandy loam

Subsoil:

8 to 17 inches—red sandy clay loam

17 to 51 inches—red clay loam

51 to 55 inches—red sandy clay loam

Substratum:

55 to 72 inches—yellowish red sandy 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: Occasional for very brief periods, mainly from December through April
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 well drained Izagora soils in slightly lower, less convex positions than those of the Cahaba soil
- Areas of sandy, excessively drained soils on small knolls or rises
- The clayey Chrysler soils in slightly lower positions than those of the Cahaba soil
- The clayey, somewhat poorly drained Urbo soils in narrow drainageways and swales

Similar soils
- Areas of Cahaba soils that are at slightly higher elevations and are rarely flooded
- Scattered areas of Latonia soils, which have a lower content of clay in the subsoil than the Cahaba soil

Land Use

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

Cropland
Suitability: Well suited
Commonly grown crops: Corn, soybeans, peanuts, grain sorghum, cotton, and watermelons
Management concerns: Flooding
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, crops may be damaged during the growing season.
- 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: Flooding
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.
- 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:
- 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.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Flooding
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: Unsuited
Management concerns: This map unit is very limited as a site for dwellings because of the flooding. A site that has better suited soils should be selected.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Flooding
Management measures and considerations:
- This map unit is very limited as a site for septic tank absorption fields because of the flooding.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Flooding
Management measures and considerations:
- Well-compacted fill material can be used as a road base to elevate roads above the flooding.

Interpretive Groups

Land capability subclass: 2w
Prime farmland status: Prime farmland
Hydric soil status: Cahaba—not hydric

ChA—Chrysler loam, 0 to 2 percent slopes, rarely flooded

Setting

Landform: Low stream terraces
Landform position: Convex slopes on summits
Shape of areas: Oblong
Size of areas: 10 to 300 acres

Composition

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

Typical Profile

Surface layer:
0 to 3 inches—brown loam
3 to 7 inches—dark yellowish brown loam

Subsoil:
7 to 17 inches—yellowish red clay loam
17 to 23 inches—red clay that has brownish mottles
23 to 47 inches—red clay that has brownish and grayish mottles
47 to 80 inches—mottled light gray and red clay

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Slow
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: Moderate
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 loamy Cahaba and Izagora soils in slightly higher positions than those of the Chrysler soil
- The somewhat poorly drained Lenoir soils in slightly lower, less convex positions than those of the Chrysler soil
- The poorly drained Una and somewhat poorly drained Urbo soils in shallow swales and drainageways

Similar soils
- Scattered areas of Chrysler soils that have a surface layer of fine sandy loam or silt loam
- Scattered areas of well drained or moderately well drained, clayey soils that have sandy or loamy layers in the lower part of the subsoil or in the substratum

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: Dallisgrass, coastal bermudagrass, and bahiagrass
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, wetness, and shrink-swell potential
Management measures and considerations:
- Constructing dwellings on elevated, well-compacted fill material helps to minimize damage from the flooding.
- Installing a subsurface drainage system helps to lower the seasonal high water table.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to strengthen foundations and prevents the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Wetness, restricted permeability, and flooding
Management measures and considerations:
- Using suitable fill material to raise the filter field a sufficient distance above the seasonal high water table and increasing the size of the absorption field improve the performance of the system.
- Installing 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: Low strength, wetness, shrink-swell potential, 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 and moderate shrink-swell potential of the natural soil material.

Interpretive Groups

Land capability subclass: 2w
Prime farmland status: Prime farmland
Hydric soil status: Chrysler—not hydric

DaA—Daleville-Quitman complex, 0 to 2 percent slopes

Setting

Landform: Stream terraces
Landform position: Daleville—flat or concave slopes on summits; Quitman—slightly convex slopes on summits
Shape of areas: Oblong
Size of areas: 20 to 600 acres

Composition

Daleville and similar soils: 50 percent
Quitman and similar soils: 35 percent
Dissimilar soils: 15 percent

Typical Profiles

Daleville
Surface layer:
0 to 2 inches—dark grayish brown loam

Subsurface layer:
2 to 14 inches—grayish brown loam that has brownish mottles

Subsoil:
14 to 26 inches—dark grayish brown loam that has brownish mottles
26 to 36 inches—gray clay loam that has brownish and grayish mottles
36 to 62 inches—light gray clay loam that has yellowish and grayish mottles
62 to 78 inches—light brownish gray clay loam that has brownish mottles
78 to 84 inches—mottled light yellowish brown, brownish yellow, and light brownish gray sandy clay loam

Quitman
Surface layer:
0 to 2 inches—brown fine sandy loam
2 to 5 inches—light yellowish brown fine sandy loam

Subsurface layer:
5 to 11 inches—light olive brown fine sandy loam that has brownish mottles

Subsoil:
11 to 17 inches—light olive brown sandy clay loam that has yellowish, reddish, and grayish mottles
17 to 22 inches—grayish brown sandy clay loam that has brownish and reddish mottles
22 to 39 inches—light brownish gray clay loam that has yellowish and reddish mottles
39 to 64 inches—gray clay loam that has yellowish, brownish, and grayish mottles
64 to 80 inches—yellowish brown sandy clay loam that has grayish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Daleville—poorly drained; Quitman—somewhat poorly drained
Permeability: Daleville—slow; Quitman—moderately slow
Available water capacity: High
Seasonal high water table: Daleville—apparent, at the surface to a depth of 1 foot from December through April; Quitman—apparent, at a depth of $^1/_2$ to $1^1/_2$ feet from December through April
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 in narrow drainageways
- Scattered areas of Deerford and McCrory soils, which have a significant accumulation of sodium in the subsoil
- The moderately well drained Harleston and Savannah soils on knolls
- Areas of very poorly drained, loamy soils in shallow depressions

Similar soils
- Scattered areas of somewhat poorly drained, loamy soils that have a fragipan
- Scattered areas of poorly drained soils that have a higher content of clay in the lower part of the subsoil than the Daleville soil

Land Use

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

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn, cotton, soybeans, and grain sorghum
Management concerns: Wetness
Management measures and considerations:
- Installing a drainage system that includes open ditches, perforated tile, or land shaping improves productivity.
- Restricting tillage to periods when the soil is 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: Suited
Commonly grown crops: Common bermudagrass, coastal bermudagrass, and bahiagrass
Management concerns: Wetness

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.
- 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: Daleville—equipment limitations, seedling mortality, and competition from undesirable plants; Quitman—equipment limitations and competition from undesirable plants
Management measures and considerations:
- Restricting the use of standard wheeled and tracked equipment to dry periods helps to prevent the rutting and compaction that occur when the soils are saturated.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Special site preparation practices, such as subsoiling and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.

Wildlife habitat
Potential of the Daleville soil to support habit for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—good
Potential of the Quitman soil to support habit for: Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor
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. 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: Wetness
Management measures and considerations:
- Constructing dwellings on raised, well-compacted fill material reduces the risk of damage from wetness.
- Installing a subsurface drainage system helps to lower the seasonal high water table.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Wetness and restricted permeability
Management measures and considerations:
- This map unit is difficult to manage as a site for septic tank absorption fields

because the dominant soils have a seasonal high water table within a depth of 1½ feet.
- Using suitable fill material to raise the filter 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: Wetness and low strength
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.
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness.

Interpretive Groups

Land capability subclass: Daleville—3w; Quitman—2w
Prime farmland status: Not prime farmland
Hydric soil status: Daleville—hydric; Quitman—not hydric

EsA—Escambia fine sandy loam, 0 to 2 percent slopes

Setting

Landform: Stream terraces
Landform position: Flat or slightly concave slopes
Shape of areas: Oblong
Size of areas: 15 to 700 acres

Composition

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

Typical Profile

Surface layer:
0 to 3 inches—dark gray fine sandy loam
3 to 7 inches—dark grayish brown fine sandy loam

Subsoil:
7 to 11 inches—yellowish brown loam that has brownish mottles
11 to 16 inches—yellowish brown loam that has reddish and brownish mottles
16 to 29 inches—yellowish brown loam that has reddish and grayish mottles
29 to 33 inches—yellowish brown loam that has grayish and reddish mottles
33 to 80 inches—yellowish brown sandy clay loam that has grayish and reddish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Slow
Available water capacity: Moderate
Seasonal high water table: Perched, at a depth of 1 to 2 feet from December through April
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 Daleville soils in shallow swales
- The moderately well drained Harleston and well drained Malbis soils on knolls and slight rises

Similar soils
- Scattered areas of Quitman soils that do not have nodules of plinthite in the subsoil

Land Use

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

Cropland
Suitability: Suited
Commonly grown crops: Corn, grain sorghum, soybeans, and cotton
Management concerns: Wetness
Management measures and considerations:
- Installing a drainage system that includes open ditches, perforated tile, or land shaping improves productivity.
- Restricting tillage to periods when the soil is 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: Suited
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Wetness
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.
- 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:
- Restricting the use of standard wheeled and tracked equipment to dry periods helps to prevent the rutting and compaction that occur when the soil is saturated.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Special site preparation practices, such as subsoiling and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—fair
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: Wetness
Management measures and considerations:
- Constructing dwellings on raised, well-compacted fill material reduces the risk of damage from wetness.
- Installing a subsurface drainage system helps to lower the seasonal high water table.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Wetness and restricted permeability
Management measures and considerations:
- This map unit is difficult to manage as a site for septic tank absorption fields because the dominant soil has a seasonal high water table at a depth of 1 to 2 feet.
- Using suitable fill material to raise the filter 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: Wetness
Management measures and considerations:
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness.

Interpretive Groups

Land capability subclass: 2w
Prime farmland status: Prime farmland
Hydric soil status: Escambia—not hydric

FaE—Flomaton-Smithdale-Wadley complex, 10 to 25 percent slopes

Setting

Landform: Hillslopes
Landform position: Flomaton and Smithdale—shoulder slopes, backslopes, and footslopes; Wadley—nose slopes, shoulder slopes, and footslopes
Shape of areas: Irregular
Size of areas: 20 to 500 acres

Composition

Flomaton and similar soils: 45 percent
Smithdale and similar soils: 30 percent
Wadley and similar soils: 15 percent
Dissimilar soils: 10 percent

Typical Profiles

Flomaton
Surface layer:
0 to 7 inches—very dark grayish brown and brown very gravelly loamy sand

Subsurface layer:
7 to 14 inches—strong brown extremely gravelly coarse sand

Subsoil:
14 to 34 inches—yellowish red extremely gravelly loamy coarse sand
34 to 46 inches—red extremely gravelly loamy coarse sand
46 to 84—yellowish red extremely gravelly coarse sand

Substratum:
84 to 100 inches—stratified white and very pale brown very gravelly sand

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

Subsurface layer:
3 to 8 inches—yellowish brown loamy sand

Subsoil:
8 to 13 inches—yellowish red sandy loam
13 to 42 inches—red sandy clay loam
42 to 80 inches—red sandy loam

Wadley
Surface layer:
0 to 10 inches—brown loamy sand

Subsurface layer:
10 to 38 inches—strong brown loamy sand
38 to 55 inches—reddish yellow loamy sand

Subsoil:
55 to 80 inches—yellowish red sandy loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Flomaton—excessively drained; Smithdale—well drained; Wadley—somewhat excessively drained
Permeability: Flomaton—rapid; Smithdale—moderate; Wadley—rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Flomaton and Wadley—low; Smithdale—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
- The well drained, sandy Boykin soils on shoulder slopes
- The clayey Brantley soils on footslopes

Similar soils
- Scattered areas of loamy soils that contain 15 to 35 percent gravel throughout the profile
- Scattered areas of soils that are sandy to a depth of 80 inches or more
- Scattered areas of Saffell soils, which have a subsoil of very gravelly or extremely gravelly sandy clay loam

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.
- 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: Flomaton and Wadley—high for loblolly pine; Smithdale—very high for loblolly pine
Management concerns: Flomaton and Wadley—equipment use and seedling survival; Smithdale—erodibility 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 and improves trafficability.
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate in areas of the Wadley and Boykin 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: Poorly suited
Management concerns: Flomaton—seepage, filtering capacity, and slope; Smithdale and Wadley—slope
Management measures and considerations:
- Installing the distribution lines on the contour improves the performance of septic tank absorption fields.
- The Flomaton soil readily absorbs, but does not adequately filter, effluent. Measures that improve the filtering capacity should be considered.
- 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 soil and reduces the hazard of erosion.

Interpretive Groups

Land capability subclass: Flomaton—7s; Smithdale and Wadley—7e
Prime farmland status: Not prime farmland
Hydric soil status: Flomaton, Smithdale, and Wadley—not hydric

FlA—Fluvaquents, ponded

Setting

Landform: Flood plains and low terraces
Landform position: Oxbows, sloughs, swales, and other depressional areas
Shape of areas: Round or oblong
Size of areas: 10 to 80 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 Iuka soils in the slightly higher, more convex positions
- The moderately well drained Izagora and somewhat poorly drained Lenoir soils on slight rises and near the edges of mapped areas

Similar soils
- Scattered areas of poorly drained soils that 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 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
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 subclass: 7w
Prime farmland status: Not prime farmland
Hydric soil status: Fluvaquents—hydric

HaB—Halso fine sandy loam, 2 to 5 percent slopes

Setting

Landform: Ridges and hillslopes
Landform position: Summits, shoulder slopes, and saddles
Shape of areas: Irregular
Size of areas: 5 to 700 acres

Composition

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

Typical Profile

Surface layer:
0 to 2 inches—dark brown fine sandy loam

Subsoil:
2 to 4 inches—brown clay loam
4 to 8 inches—yellowish red clay
8 to 18 inches—red clay
18 to 25 inches—red clay that has reddish and grayish mottles
25 to 36 inches—reddish brown clay that has reddish and grayish mottles
36 to 40 inches—dark grayish brown silty clay that has reddish mottles

Substratum:
40 to 52 inches—grayish brown silty clay that has reddish and yellowish mottles
52 to 80 inches—light brownish 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

Minor Components

Dissimilar soils
- Halso soils that have a slope of more than 5 percent
- The well drained Luverne soils on knolls and shoulder slopes
- The loamy Smithdale soils on knolls

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

Land Use

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

Cropland
Suitability: Suited
Commonly grown crops: Corn, small grains, and truck crops
Management concerns: Erodibility and tilth
Management measures and considerations:
- Contour farming, no-till planting, crop residue management, stripcropping, and sod-based rotations reduce the hazard of 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 control 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: Well 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 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.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Special site preparation practices, such as harrowing and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.

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 strengthen foundations and prevents 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 subclass: 3e
Prime farmland status: Prime farmland
Hydric soil status: Halso—not hydric

HaD2—Halso fine sandy loam, 5 to 15 percent slopes, eroded

Setting

Landform: Hillslopes
Landform position: Backslopes and footslopes
Shape of areas: Irregular
Size of areas: 5 to 700 acres

Composition

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

Typical Profile

Surface layer:
0 to 2 inches—dark brown fine sandy loam

Subsoil:
2 to 4 inches—brown clay loam
4 to 8 inches—yellowish red clay
8 to 18 inches—red clay
18 to 25 inches—red clay that has reddish and grayish mottles
25 to 36 inches—reddish brown clay that has reddish and grayish mottles
36 to 40 inches—dark grayish brown silty clay that has reddish mottles

Substratum:
40 to 52 inches—grayish brown silty clay that has reddish and yellowish mottles
52 to 80 inches—light brownish 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

Minor Components

Dissimilar soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains

- Halso soils that have a slope of less than 5 percent or more than 15 percent
- The well drained Luverne soils on shoulder slopes
- The loamy Smithdale soils on shoulder slopes

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

Land Use

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

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn and small grains
Management concerns: Erodibility, equipment use, and tilth
Management measures and considerations:
- Using a resource management system that includes contour farming, conservation tillage, crop residue management, stripcropping, and a sod-based rotation helps to control further erosion by stabilizing the soil, controlling surface runoff, and maximizing 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 control 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: Well suited to pasture; 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 improve the condition of the pasture.
- Fencing livestock away from creeks and streams helps to control further 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 may 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 strengthen foundations and prevents 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 subclass: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Halso—not hydric

HtA—Harleston loamy fine sand, 0 to 2 percent slopes

Setting

Landform: Stream terraces
Landform position: Convex slopes on summits
Shape of areas: Oblong
Size of areas: 10 to 200 acres

Composition

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

Typical Profile

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

Subsurface layer:
6 to 13 inches—yellowish brown loamy fine sand

Subsoil:
13 to 72 inches—yellowish brown fine sandy loam that has brownish and grayish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Moderate
Available water capacity: Moderate
Seasonal high water table: Apparent, at a depth of 2 to 3 feet from December through April
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 somewhat poorly drained Escambia and Quitman soils in slightly lower, more concave positions than those of the Harleston soil
- Harleston soils that have a slope of more than 2 percent
- Harleston soils that are subject to rare flooding
- Scattered areas of Izagora soils, which have a higher content of clay in the subsoil than the Harleston soil
- Scattered areas of the somewhat poorly drained, sandy Ocilla soils

Similar soils
- Scattered areas of moderately well drained, loamy soils that have a lower content of clay in the lower part of the subsoil than the Harleston soil

Land Use

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

Cropland
Suitability: Well suited
Commonly grown crops: Corn, soybeans, grain sorghum, and cotton
Management concerns: Wetness
Management measures and considerations:
- Installing and maintaining an artificial drainage system reduces the wetness and 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 and bahiagrass
Management concerns: Wetness
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.
- An artificial drainage system may be needed to maximize 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: 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 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: Wetness
Management measures and considerations:
- Constructing dwellings on the highest part of the landscape and using artificial drainage reduce the risk of damage from wetness.

- Installing a subsurface drainage system helps to lower the seasonal high water table.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: 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 to 3 feet.
- Using suitable fill material to raise the filter field a sufficient distance above the seasonal high water table and increasing the size of the absorption field improve the performance of the system.
- Installing 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: Wetness
Management measures and considerations:
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness.

Interpretive Groups

Land capability subclass: 2w
Prime farmland status: Prime farmland
Hydric soil status: Harleston—not hydric

IBA—Iuka, Bibb, and Mantachie soils, 0 to 1 percent slopes, frequently flooded

Setting

Landform: Flood plains
Landform position: Iuka—convex slopes on high and intermediate parts of natural levees; Bibb—flat or concave slopes in backswamps; Mantachie—flat or slightly convex slopes on low parts of natural levees and in backswamps
Shape of areas: Long and narrow
Size of areas: 100 to 18,000 acres

Composition

The composition of this map unit is variable. Some areas consist mainly of the Iuka soil, some areas consist mainly of the Bibb or Mantachie soil, and other areas contain all three soils in variable proportions. The composition of a representative unit is 40 percent Iuka and similar soils; 25 percent Bibb and similar soils; 20 percent Mantachie and similar soils; and 15 percent dissimilar soils.

Typical Profiles

Iuka
Surface layer:
0 to 3 inches—dark grayish brown sandy loam that has brown mottles

Substratum:
3 to 16 inches—brown and yellowish brown sandy loam that has thin strata of loamy sand

16 to 31 inches—dark yellowish brown sandy loam that has grayish mottles
31 to 50 inches—light gray sandy loam that has brownish mottles and thin strata of sand
50 to 80 inches—light brownish gray loamy sand that has thin strata of sandy loam

Bibb
Surface layer:
0 to 7 inches—dark gray sandy loam

Substratum:
7 to 23 inches—dark gray sandy loam that has brownish mottles
23 to 72 inches—dark gray sandy loam that has thin strata of loam

Mantachie
Surface layer:
0 to 9 inches—dark brown silt loam that has grayish mottles

Subsoil:
9 to 20 inches—brown and gray loam
20 to 30 inches—gray clay loam that has brownish mottles
30 to 39 inches—gray sandy clay loam that has brownish mottles

Substratum:
39 to 80 inches—gray sandy loam that has brownish mottles and thin strata of loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Iuka—moderately well drained; Bibb—poorly drained; Mantachie—somewhat poorly drained
Permeability: Moderate
Available water capacity: Iuka and Bibb—moderate; Mantachie—high
Seasonal high water table: Iuka—apparent, at a depth of 1$^1/_2$ to 3 feet from December through April; Bibb—apparent, at the surface to a depth of 1 foot from December through April; Mantachie—apparent, at a depth of 1 to 1$^1/_2$ 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 well drained Cahaba and Latonia and moderately well drained Izagora soils on low knolls and remnants of terraces
- The very poorly drained Fluvaquents, which are subject to ponding of long duration, in depressions
- The well drained Ochlockonee soils and excessively drained sandy soils on high parts of natural levees
- The clayey, poorly drained Una and somewhat poorly drained Urbo soils on low parts of backswamps

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

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.
- 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: 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 minimizes rutting and compaction.
- Harvesting timber during the summer or fall reduces the risk of damage from the flooding.
- Bedding the Bibb and Mantachie 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 Iuka soil to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—poor
Potential of the Bibb soil to support habitat for: Openland wildlife and forestland wildlife—fair; wetland wildlife—good
Potential of the Mantachie soil to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—fair
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 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.

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 subclass: 5w
Prime farmland status: Not prime farmland
Hydric soil status: Iuka and Mantachie—not hydric; Bibb—hydric

IgA—Izagora fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Setting

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

Composition

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

Typical Profile

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

Subsurface layer:
4 to 7 inches—brown fine sandy loam

Subsoil:
7 to 16 inches—yellowish brown sandy clay loam
16 to 35 inches—yellowish brown sandy clay loam that has brownish, reddish, and grayish mottles
35 to 80 inches—mottled grayish, brownish, and reddish clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Slow
Available water capacity: High
Seasonal high water table: Perched, at a depth of 2 to 3 feet from December through April
Shrink-swell potential: Moderate
Flooding: Occasional for brief periods, mainly from December through April
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 well drained Cahaba soils in the slightly higher, more convex positions
- The clayey Chrysler soils in positions similar to those of the Izagora soil
- The somewhat poorly drained Deerford and poorly drained McCrory soils in the lower positions
- The somewhat poorly drained Lenoir soils in the slightly lower, less convex positions

Similar soils
- Scattered areas of moderately well drained, loamy soils that have a significant decrease in clay content with depth

Land Use

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

Cropland
Suitability: Suited
Commonly grown crops: Corn, soybeans, grain sorghum, and cotton
Management concerns: Flooding and wetness
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, crops may be damaged 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: Well suited
Commonly grown crops: Coastal bermudagrass, bahiagrass, and white clover
Management concerns: 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.
- 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: Competition from undesirable plants and equipment use
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: 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 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: Unsuited
Management concerns: Flooding, shrink-swell potential, and wetness
Management measures and considerations:
- This map unit is very limited as a site for dwellings because of the flooding, shrink-swell potential, and wetness. A site that has better suited soils should be selected.

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 as a site for septic tank absorption fields because of the flooding and because the dominant soil has a seasonal high water table at a depth of 2 to 3 feet.
- Using suitable fill material to raise the filter field a sufficient distance above the seasonal high water table and increasing the size of the absorption field improve the performance of the system.
- Installing 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: Flooding, low strength, and wetness
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 subclass: 2w
Prime farmland status: Prime farmland
Hydric soil status: Izagora—not hydric

IjB—Izagora-Jedburg complex, gently undulating, occasionally flooded

Setting

Landform: Low stream terraces
Landform position: Izagora—convex slopes on low ridges and natural levees; Jedburg—swales

Shape of areas: Oblong
Size of areas: 15 to 150 acres

Composition

Izagora and similar soils: 55 percent
Jedburg and similar soils: 35 percent
Dissimilar soils: 10 percent

Typical Profiles

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

Subsurface layer:
4 to 7 inches—brown fine sandy loam

Subsoil:
7 to 16 inches—yellowish brown sandy clay loam
16 to 35 inches—yellowish brown sandy clay loam that has brownish, reddish, and grayish mottles
35 to 80 inches—mottled grayish, brownish, and reddish clay loam

Jedburg
Surface layer:
0 to 4 inches—dark grayish brown and dark yellowish brown loam

Subsoil:
4 to 10 inches—mottled yellowish brown and brown fine sandy loam
10 to 24 inches—yellowish brown loam that has grayish and brownish mottles
24 to 32 inches—light brownish gray loam that has brownish mottles
32 to 42 inches—grayish brown clay loam that has brownish mottles
42 to 58 inches—light brownish gray sandy clay that has brownish mottles
58 to 80 inches—gray clay that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Izagora—moderately well drained; Jedburg—somewhat poorly drained
Permeability: Izagora—slow; Jedburg—moderately slow
Available water capacity: High
Seasonal high water table: Izagora—perched, at a depth of 2 to 3 feet from December through April; Jedburg—apparent, at a depth of $^1/_2$ to $1^1/_2$ feet from December through April
Shrink-swell potential: Izagora—moderate; Jedburg—low
Flooding: Occasional for brief periods, mainly from December through April
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 well drained Cahaba soils in the slightly higher, more convex positions
- The clayey Chrysler soils in positions similar to those of the Izagora soil
- The somewhat poorly drained Lenoir soils in the slightly lower, less convex positions
- The clayey, poorly drained Una soils in the deeper swales

Similar soils
- Scattered areas of moderately well drained, loamy soils that have a significant decrease in clay content with depth

Land Use

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

Cropland
Suitability: Suited
Commonly grown crops: Corn, soybeans, grain sorghum, and cotton
Management concerns: Flooding and wetness
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, crops may be damaged 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: Well suited to pasture; suited to hayland
Commonly grown crops: Coastal 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.
- 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: Competition from undesirable plants and equipment use
Management measures and considerations:
- Logging when the soils have 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.
- Harvesting timber during the summer or fall reduces the risk of damage from the flooding.

Wildlife habitat
Potential of the Izagora soil to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—poor
Potential of the Jedburg soil to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—fair
Management concerns: Flooding 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: Unsuited
Management concerns: Izagora—flooding, shrink-swell potential, and wetness; Jedburg—flooding and wetness
Management measures and considerations:
- This map unit is very limited as a site for dwellings because of the flooding, shrink-swell potential, and wetness. A site that has better suited soils should be selected.

Septic tank absorption fields
Suitability: Izagora—poorly suited; Jedburg—unsuited
Management concerns: Wetness, restricted permeability, and flooding
Management measures and considerations:
- This map unit is difficult to manage as a site for septic tank absorption fields because of the flooding and because the dominant soils have a seasonal high water table at a depth of $^1/_2$ to 3 feet.
- Using suitable fill material to raise the filter field a sufficient distance above the seasonal high water table and increasing the size of the absorption field improve the performance of the system.
- Installing 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: Flooding, low strength, and wetness
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 subclass: Izagora—2w; Jedburg—3w
Prime farmland status: Not prime farmland
Hydric soil status: Izagora and Jedburg—not hydric

JdA—Jedburg loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Low stream terraces
Landform position: Flat and slightly convex slopes
Shape of areas: Oblong
Size of areas: 10 to 300 acres

Composition

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

Typical Profile

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

Subsoil:
4 to 10 inches—mottled yellowish brown and brown fine sandy loam
10 to 24 inches—yellowish brown loam that has grayish and brownish mottles
24 to 32 inches—light brownish gray loam that has brownish mottles
32 to 42 inches—grayish brown clay loam that has brownish mottles
42 to 58 inches—light brownish gray sandy clay that has brownish mottles
58 to 80 inches—gray clay that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Moderately slow
Available water capacity: High
Seasonal high water table: Apparent, at a depth of $^{1}/_{2}$ to $1^{1}/_{2}$ feet from December through April
Shrink-swell potential: Low
Flooding: Occasional for brief periods, mainly from December through April
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The well drained Cahaba and moderately well drained Izagora soils in the slightly higher, more convex positions
- The clayey Lenoir soils in the slightly lower, less convex positions
- The poorly drained Myatt and clayey, poorly drained Una soils in swales and depressions

Similar soils
- Scattered areas of somewhat poorly drained, loamy soils that have a significant decrease in clay content with depth
- Scattered areas of Jedburg soils that have a surface layer of fine sandy loam

Land Use

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

Cropland
Suitability: Suited
Commonly grown crops: Corn, soybeans, grain sorghum, and cotton
Management concerns: Wetness
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, crops may be damaged during the growing season.
- 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 control 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: Coastal bermudagrass, bahiagrass, and white clover
Management concerns: 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.
- 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 minimizes 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—fair
Management concerns: 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 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: 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: Wetness, restricted permeability, and flooding
Management measures and considerations:
- This map unit is difficult to manage as a site for septic tank absorption fields because of the flooding and because the dominant soil has a seasonal high water table at a depth of $^1/_2$ to $1^1/_2$ feet.
- Using suitable fill material to raise the filter field a sufficient distance above the seasonal high water table and increasing the size of the absorption field improve 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, low strength, and wetness
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 subclass: 3w
Prime farmland status: Not prime farmland
Hydric soil status: Jedburg—not hydric

LaA—Latonia loamy sand, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Low stream terraces
Landform position: Convex slopes on summits
Shape of areas: Oblong
Size of areas: 10 to 100 acres

Composition

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

Typical Profile

Surface layer:
0 to 8 inches—brown and dark yellowish brown loamy sand

Subsoil:
8 to 13 inches—dark yellowish brown sandy loam
13 to 38 inches—brown sandy loam

Substratum:
38 to 63 inches—yellowish brown loamy sand
63 to 80 inches—yellowish brown sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately rapid
Available water capacity: Moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Low
Flooding: Occasional for very brief periods, mainly from December through April
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 Cahaba soils, which have a higher content of clay in the upper part of the subsoil than the Latonia soil
- The moderately well drained Izagora soils in the slightly lower positions
- Scattered areas of sandy, excessively drained soils in the slightly higher positions

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

Land Use

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

Cropland
Suitability: Suited
Commonly grown crops: Corn, soybeans, grain sorghum, cotton, and watermelons
Management concerns: Flooding and droughtiness
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, crops may be damaged during the growing season.
- Leaving crop residue on the surface conserves soil moisture.
- No-till planting, winter cover crops, crop residue management, and crop rotations that include grasses and legumes increase available water capacity, minimize crusting, and improve fertility.
- 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: Flooding and droughtiness
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 supplemental irrigation and planting varieties that are adapted to droughty conditions increase production.
- 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: Flooding
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: Unsuited
Management concerns: Flooding
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: Poorly suited
Management concerns: Flooding and poor filtering capacity
Management measures and considerations:
- This map unit is very limited as a site for septic tank absorption fields because of the flooding.
- Measures that improve filtering capacity should be considered. The soil readily absorbs, but does not adequately filter, effluent.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Flooding
Management measures and considerations:
- Well-compacted fill material can be used as a road base to elevate roads above the flooding.

Interpretive Groups

Land capability subclass: 2w
Prime farmland status: Prime farmland
Hydric soil status: Latonia—not hydric

LeA—Lenoir silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Low stream terraces
Landform position: Flat and slightly concave slopes
Shape of areas: Oblong
Size of areas: 10 to 250 acres

Composition

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

Typical Profile

Surface layer:
0 to 2 inches—dark grayish brown silt loam

Subsurface layer:
2 to 6 inches—yellowish brown loam that has grayish and brownish mottles

Subsoil:
6 to 12 inches—mottled brown and yellowish brown clay loam
12 to 22 inches—light brownish gray clay that has brownish and reddish mottles
22 to 80 inches—gray clay that has reddish and brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Slow
Available water capacity: High
Seasonal high water table: Apparent, at a depth of 1 to 2½ feet from December through April
Shrink-swell potential: Moderate
Flooding: Occasional for brief periods, mainly 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 moderately well drained Chrysler soils in the slightly higher, more convex positions
- The loamy Cahaba and Izagora soils in the slightly higher positions
- The loamy Jedburg soils in positions similar to those of the Lenoir soil
- The poorly drained Una soils in swales

Similar soils
- Scattered areas of Lenoir soils that have a surface layer of fine sandy loam or loam
- Scattered areas of somewhat poorly drained, clayey soils that have a significant decrease in clay content with depth

Land Use

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

Cropland
Suitability: Suited
Commonly grown crops: Corn, soybeans, grain sorghum, and cotton
Management concerns: Flooding and wetness
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, crops may be damaged during the growing season.
- Using well maintained open ditches and diversions to divert and remove excess water improves productivity.
- Restricting tillage to periods when the soil is 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: Suited
Commonly grown crops: Dallisgrass, coastal 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.
- Using well maintained open ditches and diversions to divert and remove excess water improves productivity.
- 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 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 minimizes rutting and compaction.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.
- Planting seedlings on raised beds helps to establish the 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.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—fair
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: Unsuited
Management concerns: Flooding, shrink-swell potential, 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 as a site for septic tank absorption fields because of the flooding and because the dominant soil has a seasonal high water table at a depth of 1 to 2$^1/_2$ feet.
- Using suitable fill material to raise the filter field a sufficient distance above the

seasonal high water table and increasing the size of the absorption field improve 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, wetness, low strength, and shrink-swell potential
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 subclass: 3w
Prime farmland status: Not prime farmland
Hydric soil status: Lenoir—not hydric

LmD—Lorman fine sandy loam, 5 to 15 percent slopes

Setting

Landform: Hillslopes
Landform position: Side slopes and footslopes
Shape of areas: Irregular
Size of areas: 10 to 80 acres

Composition

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

Typical Profile

Surface layer:
0 to 5 inches—very dark gray fine sandy loam

Subsurface layer:
5 to 9 inches—dark grayish brown fine sandy loam that has brownish mottles

Subsoil:
9 to 18 inches—yellowish red clay that has brownish and reddish mottles
18 to 26 inches—red and brown clay that has grayish mottles
26 to 55 inches—light yellowish brown clay that has reddish and grayish mottles
55 to 60 inches—light yellowish brown clay that has brownish mottles and has nodules of calcium carbonate

Substratum:
60 to 76 inches—very pale brown clay that has yellowish mottles and has nodules of calcium carbonate
76 to 80 inches—mottled pale yellow and white clay loam that has soft masses of calcium carbonate

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Moderately 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: More than 80 inches

Minor Components

Dissimilar soils
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The well drained Brantley and Luverne soils on the upper parts of side slopes and on narrow ridges
- Lorman soils that have a slope of less than 5 percent or more than 15 percent
- Suggsville soils, which have interbedded chalk and limestone bedrock within a depth of 40 to 60 inches, on the lower parts of slopes
- Toxey soils, which are alkaline throughout, on knolls and shoulder slopes

Similar soils
- Scattered areas of Lorman soils that have a surface layer of loam or clay loam
- Scattered areas of moderately well drained, clayey soils that have bedrock within a depth of 60 inches

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn and small grains
Management concerns: Erodibility
Management measures and considerations:
- Contour farming, no-till planting, crop residue management, stripcropping, and sod-based rotations reduce the hazard of erosion, stabilize the soil, 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 to pasture; suited to hayland
Commonly grown crops: Tall fescue, bahiagrass, dallisgrass, and Johnsongrass
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.
- 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 mortality, 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 soil.
- Logging when the soil has the proper moisture content helps to prevent rutting in the surface layer and the root damage caused by compaction.
- Planting seedlings on raised beds and increasing the number of seedlings planted help to compensate for the high rate of seedling mortality that may 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 wetland wildlife—poor; forestland wildlife—fair
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 strengthen foundations and prevents 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 erosion.

Septic tank absorption fields
Suitability: Unsuited
Management concerns: Restricted permeability and slope
Management measures and considerations:
- This map unit is very limited as a site for septic tank absorption fields because of the very slow permeability. A site that has better suited soils should be selected.
- 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, help to prevent slippage of cut-and-fill slopes.

Interpretive Groups

Land capability subclass: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Lorman—not hydric

LoF—Lorman-Toxey-Okeelala complex, 15 to 45 percent slopes

Setting

Landform: Hillslopes
Landform position: Lorman—upper parts of backslopes; Toxey—shoulder slopes and benches; Okeelala—middle and lower parts of backslopes
Shape of areas: Irregular
Size of areas: 40 to 250 acres

Composition

Lorman and similar soils: 45 percent
Toxey and similar soils: 25 percent
Okeelala and similar soils: 15 percent
Dissimilar soils: 15 percent

Typical Profiles

Lorman
Surface layer:
0 to 5 inches—very dark gray fine sandy loam

Subsurface layer:
5 to 9 inches—dark grayish brown fine sandy loam that has brownish mottles

Subsoil:
9 to 18 inches—yellowish red clay that has brownish and reddish mottles
18 to 26 inches—red and brown clay that has grayish mottles
26 to 55 inches—light yellowish brown clay that has reddish and grayish mottles
55 to 60 inches—light yellowish brown clay that has brownish mottles and has nodules of calcium carbonate

Substratum:
60 to 76 inches—very pale brown clay that has yellowish mottles and has nodules of calcium carbonate
76 to 80 inches—mottled pale yellow and white clay loam that has soft masses of calcium carbonate

Toxey
Surface layer:
0 to 3 inches—very dark grayish brown and dark grayish brown silty clay loam

Subsoil:
3 to 7 inches—brown clay
7 to 13 inches—yellowish brown clay that has reddish and grayish mottles

13 to 27 inches—mottled light olive brown and yellowish brown clay
27 to 31 inches—light olive brown silty clay that has grayish and yellowish mottles

Substratum:
31 to 40 inches—light brownish gray silty clay loam that has brownish mottles
40 to 80 inches—mottled light yellowish brown and grayish brown clay loam

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

Subsurface layer:
3 to 13 inches—brown loamy fine sand

Subsoil:
13 to 18 inches—strong brown sandy loam
18 to 33 inches—red sandy clay loam
33 to 58 inches—yellowish red sandy loam

Substratum:
58 to 65 inches—yellowish red loamy sand
65 to 80 inches—strong brown loamy sand that has reddish yellow mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Lorman and Toxey—moderately well drained; Okeelala—well drained
Permeability: Lorman and Toxey—very slow; Okeelala—moderate
Available water capacity: Moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Lorman and Toxey—high; Okeelala—low
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Lorman and Okeelala—low; Toxey—medium
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 well drained Brantley soils on shoulder slopes and the upper parts of backslopes
- The gravelly Flomaton soils on shoulder slopes and nose slopes
- Lorman, Toxey, and Okeelala soils that have a slope of less than 15 percent or more than 45 percent
- Well drained clayey soils that have a substratum of soft shale within a depth of 40 inches of the soil surface; on shoulder slopes and the upper part of backslopes

Similar soils
- Well drained, loamy soils that are similar to the Okeelala soil but have a brownish subsoil; on lower parts of backslopes

Land Use

Dominant uses: Forestland and wildlife habitat

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
Management concerns: Erodibility and equipment use
Management measures and considerations:

- The slope may limit equipment use in the steeper areas.
- 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: Lorman and Okeelala—very high for loblolly pine; Toxey—high for loblolly pine
Management concerns: Lorman and Toxey—erodibility, equipment use, seedling survival, and competition from undesirable plants; Okeelala—erodibility and equipment use
Management measures and considerations:

- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the Lorman and Toxey 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.
- Planting seedlings on raised beds and increasing the number of seedlings planted helps to compensate for the high rate of seedling mortality that may occur where clay that has a high shrink-swell potential is near or at the surface in areas of the Lorman and Toxey soils.
- 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.
- 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—poor; 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: Lorman and Toxey—shrink-swell potential and slope; Okeelala—slope
Management measures and considerations:
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to strengthen foundations and prevents the damage caused by shrinking and swelling in areas of Lorman and Toxey soils.
- 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.

Septic tank absorption fields
Suitability: Lorman and Toxey—unsuited; Okeelala—suited
Management concerns: Lorman and Toxey—restricted permeability and slope; Okeelala—slope
Management measures and considerations:
- This map unit is very limited as a site for septic tank absorption fields because of the very slow permeability and the slope. A site that has better suited soils should be selected.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Poorly suited
Management concerns: Lorman and Toxey—shrink-swell potential, low strength, and slope; Okeelala—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 in areas of the Lorman and Toxey soils.
- 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 Lorman and Toxey soils.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to prevent slippage of cut-and-fill slopes.

Interpretive Groups

Land capability subclass: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Lorman, Toxey, and Okeelala—not hydric

LsA—Lucedale sandy loam, 0 to 2 percent slopes

Setting

Landform: High stream terraces; ridges
Landform position: Convex slopes on summits
Shape of areas: Oblong or irregular
Size of areas: 20 to 800 acres

Composition

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

Typical Profile

Surface layer:
0 to 7 inches—dark reddish brown sandy loam

Subsoil:
7 to 16 inches—dark reddish brown sandy clay loam
16 to 80 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
- Lucedale soils that have a slope of more than 2 percent
- Areas of moderately well drained or somewhat poorly drained soils in shallow depressions

Similar soils
- Scattered areas of Bama soils, which do not have dark red colors throughout the subsoil
- Scattered areas of Lucedale soils, which have gravelly strata below a depth of 60 inches
- Scattered areas of Smithdale soils, which have a significant decrease in clay content in the lower part of the subsoil
- Scattered areas of well drained soils that have a higher content of clay in the subsoil than Lucedale soil

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.
- 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 subclass: 1
Prime farmland status: Prime farmland
Hydric soil status: Lucedale—not hydric

LuC—Lucedale-Bama-Urban land complex, 0 to 8 percent slopes

Setting

Landform: High stream terraces; ridges
Landform position: Summits, shoulder slopes, and side slopes
Shape of areas: Rectangular or irregular
Size of areas: 20 to 400 acres

Composition

Lucedale and similar soils: 35 percent
Bama and similar soils: 30 percent

Urban land: 20 percent
Dissimilar soils: 15 percent

Typical Profiles

Lucedale
Surface layer:
0 to 7 inches—dark reddish brown sandy loam

Subsoil:
7 to 16 inches—dark reddish brown sandy clay loam
16 to 80 inches—dark red sandy clay loam

Bama
Surface layer:
0 to 7 inches—dark grayish brown fine sandy loam

Subsoil:
7 to 12 inches—yellowish red sandy clay loam that has streaks of brownish fine sandy loam
12 to 24 inches—yellowish red sandy clay loam
24 to 63 inches—red sandy clay loam
63 to 87 inches—dark red sandy clay loam

Urban land
Urban land consists of areas that are covered by roads, buildings, parking lots, houses, and other structures.

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 components
- The sandy Boykin and Wadley soils on knolls and shoulder slopes
- The gravelly Flomaton and Saffell soils on shoulder slopes and nose slopes
- The clayey Luverne and Maubila soils on eroded knolls and shoulder slopes
- Scattered areas of loamy fill and areas of Bama and Lucedale soils that have been cut, graded, and shaped

Similar soils
- Scattered areas of Smithdale soils, which have a significant decrease in the content of clay in the lower part of the subsoil

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. Trees are primarily planted for aesthetic value in areas of this map unit.

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: Lucedale and Bama—well suited; Urban land—not rated
Management concerns: No significant limitations affect dwellings.

Septic tank absorption fields
Suitability: Lucedale and Bama—well suited; Urban land—not rated
Management concerns: No significant limitations affect septic tank absorption fields.

Local roads and streets
Suitability: Lucedale and Bama—well suited; Urban land—not rated
Management concerns: No significant limitations affect local roads and streets.

Interpretive Groups

Land capability subclass: Lucedale and Bama—3e; Urban land—8s
Prime farmland status: Not prime farmland
Hydric soil status: Lucedale, Bama, and Urban land—not hydric

LvB—Luverne sandy loam, 2 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Summits, side slopes, and shoulder slopes
Shape of areas: Irregular
Size of areas: 10 to 200 acres

Composition

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

Typical Profile

Surface layer:
0 to 6 inches—brown sandy loam

Subsoil:
6 to 23 inches—red clay
23 to 34 inches—yellowish red clay loam

Substratum:
34 to 47 inches—thinly stratified brownish, reddish, and grayish fine sandy loam and loam
47 to 80 inches—thinly stratified grayish, brownish, and reddish fine sandy loam and loam

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 sandy Boykin and loamy Smithdale soils on knolls and shoulder slopes
- The moderately well drained Halso soils in saddles
- Luverne soils that have a slope of more than 5 percent

Similar soils
- Scattered areas of soils that have less clay in the substratum than the Luverne soil
- Scattered areas of well drained, clayey soils that contain more than 5 percent ironstone fragments within the profile
- Scattered areas of well drained, clayey soils that have more than 30 percent silt in the upper part of the subsoil

Land Use

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

Cropland
Suitability: Suited
Commonly grown crops: Corn, 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 strengthen foundations and prevents the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Restricted permeability
Management measures and considerations:
- Installing distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing 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 subclass: 3e
Prime farmland status: Prime farmland
Hydric soil status: Luverne—not hydric

LvD—Luverne sandy loam, 5 to 15 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes, shoulder slopes, 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 6 inches—brown sandy loam

Subsoil:
6 to 23 inches—red clay
23 to 34 inches—yellowish red clay loam

Substratum:
34 to 47 inches—thinly stratified brownish, reddish, and grayish fine sandy loam and loam
47 to 80 inches—thinly stratified grayish, brownish, and reddish fine sandy loam and loam

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 Iuka soils on narrow flood plains
- The sandy Boykin and loamy Smithdale soils on narrow ridges and shoulder slopes
- The moderately well drained Halso and Maubila soils in saddles and on the lower parts of backslopes
- Luverne soils that have a slope of less than 5 percent or more than 15 percent

Similar soils
- Scattered areas of clayey soils that have a substratum of loamy sand or sand
- Scattered areas of well drained, clayey soils that contain more than 5 percent ironstone fragments within the profile
- Scattered areas of well drained, clayey soils that have more than 30 percent silt in the upper part of the subsoil

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 strengthen foundations and prevents the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: 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.
- Installing 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 subclass: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Luverne—not hydric

LvF—Luverne sandy loam, 15 to 35 percent slopes

Setting

Landform: Hillslopes
Landform position: Backslopes, shoulder slopes, and foot slopes

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 6 inches—brown sandy loam

Subsoil:
6 to 23 inches—red clay
23 to 34 inches—yellowish red clay loam

Substratum:
34 to 47 inches—thinly stratified brownish, reddish, and grayish fine sandy loam and loam
47 to 80 inches—thinly stratified grayish, brownish, and reddish fine sandy loam and loam

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 Rayburn soils on footslopes
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The sandy Boykin and Wadley soils on narrow ridges and shoulder slopes
- The moderately well drained Halso and Maubila soils in saddles and on the lower parts of backslopes
- Luverne soils that have a slope of less than 15 percent or more than 35 percent
- The loamy Smithdale soils in positions similar to those of the Luverne soil

Similar soils
- Scattered areas of well drained, clayey soils that have more than 30 percent silt in the upper part of the subsoil
- Scattered areas of clayey soils that have a substratum of loamy sand or sand
- Scattered areas of well drained, clayey soils that contain more than 5 percent ironstone fragments within the profile

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 strengthen foundations and prevents the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: 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.
- Installing 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 subclass: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Luverne—not hydric

LxD—Luverne-Urban land complex, 2 to 15 percent slopes

Setting

Landform: Ridges and hillslopes
Landform position: Summits, shoulder slopes, and side slopes
Shape of areas: Rectangular or irregular
Size of areas: 25 to 500 acres

Composition

Luverne and similar soils: 55 percent
Urban land: 40 percent
Dissimilar soils: 5 percent

Typical Profiles

Luverne
Surface layer:
0 to 6 inches—brown sandy loam

Subsoil:
6 to 23 inches—red clay
23 to 34 inches—yellowish red clay loam

Substratum:
34 to 47 inches—thinly stratified brownish, reddish, and grayish fine sandy loam and loam
47 to 80 inches—thinly stratified grayish, brownish, and reddish fine sandy loam and loam

Urban land
Urban land consists of areas that are covered by roads, buildings, parking lots, houses, and other structures.

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 sandy Boykin and loamy Smithdale soils on narrow ridges and shoulder slopes
- The moderately well drained Halso and Maubila soils in saddles and on the lower parts of backslopes
- Luverne soils that have a slope of more than 15 percent

Similar soils
- Scattered areas of clayey soils that have a substratum of loamy sand or sand
- Scattered areas of well drained, clayey soils that contain more than 5 percent ironstone fragments within the profile
- Scattered areas of well drained, clayey soils that have more than 30 percent silt in the upper part of the subsoil

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. Trees are primarily planted for aesthetic value in areas of this map unit.

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: Luverne—suited; Urban land—not rated
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 strengthen foundations and prevents the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Luverne—poorly suited; Urban land—not rated
Management concerns: 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.
- Installing 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: Luverne—suited; Urban land—not rated
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 subclass: Luverne—6e; Urban land—8s
Prime farmland status: Not prime farmland
Hydric soil status: Luverne and Urban land—not hydric

MaB—Malbis fine sandy loam, 1 to 5 percent slopes

Setting

Landform: High stream terraces
Landform position: Summits, side slopes, 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 4 inches—brown fine sandy loam

Subsurface layer:
4 to 9 inches—yellowish brown fine sandy loam

Subsoil:
9 to 38 inches—yellowish brown loam
38 to 47 inches—yellowish brown loam that has brownish and reddish mottles and masses of nodular plinthite
47 to 80 inches—yellowish brown loam that has grayish and reddish mottles and 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
- Bama, Lucedale, and Smithdale soils, which have reddish colors in the subsoil and do not have a significant accumulation of plinthite; on knolls and shoulder slopes
- The moderately well drained Savannah soils in the slightly lower, less convex positions

Similar soils
- Scattered areas of soils that have less clay in the subsoil than the Malbis soil
- Scattered area of Malbis soils that are moderately well drained

Land Use

Dominant uses: Pasture, hayland, and forestland
Other uses: Wildlife habitat, cropland, and homesites

Cropland
Suitability: Well suited
Commonly grown crops: Corn, small grains, peanuts, and truck crops
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 2½ to 4 feet.
- Using suitable fill material to raise the filter field a sufficient distance above the seasonal high water table and increasing the size of the absorption field improve the performance of the system.
- Installing 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 subclass: 2e
Prime farmland status: Prime farmland
Hydric soil status: Malbis—not hydric

MbF—Maubila-Wadley-Smithdale complex, 8 to 30 percent slopes

Setting

Landform: Hillslopes
Landform position: Maubila—knolls, shoulder slopes, and the upper parts of backslopes; Wadley—nose slopes, shoulder slopes, and footslopes; Smithdale—shoulder slopes, backslopes, and footslopes
Shape of areas: Irregular
Size of areas: 15 to 1,500 acres

Composition

Maubila and similar soils: 35 percent
Wadley and similar soils: 30 percent
Smithdale and similar soils: 20 percent
Dissimilar soils: 15 percent

Typical Profiles

Maubila
Surface layer:
0 to 5 inches—dark grayish brown flaggy sandy loam

Subsurface layer:
5 to 8 inches—yellowish brown flaggy sandy loam

Subsoil:
8 to 15 inches—strong brown clay loam
15 to 22 inches—strong brown clay that has reddish and brownish mottles
22 to 42 inches—mottled brownish yellow, light gray, and weak red clay
42 to 55 inches—light gray clay loam that has reddish and yellowish mottles

Substratum:
55 to 80 inches—mottled weak red, light gray, and brownish yellow clay

Wadley
Surface layer:
0 to 10 inches—brown loamy sand

Subsurface layer:
10 to 38 inches—strong brown loamy sand
38 to 55 inches—reddish yellow loamy sand

Subsoil:
55 to 80 inches—yellowish red sandy loam

Smithdale
Surface layer:
0 to 2 inches—brown sandy loam

Subsurface layer:
2 to 7 inches—strong brown sandy loam

Subsoil:
7 to 35 inches—yellowish red and red sandy clay loam
35 to 63 inches—red and yellowish red sandy loam

Substratum:
63 to 80 inches—reddish yellow loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Maubila—moderately well drained; Wadley—somewhat excessively drained; Smithdale—well drained
Permeability: Maubila—slow; Wadley—rapid in the surface and subsurface layers and moderate in the subsoil; Smithdale—moderate
Available water capacity: Maubila and Smithdale—moderate; Wadley—low
Depth to seasonal high water table: Maubila—perched, at a depth of 2 to $3^1/_2$ feet from December through March; Wadley and Smithdale—more than 6 feet
Shrink-swell potential: Maubila—moderate; Wadley and Smithdale—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 components
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Boykin soils, which have a sandy epipedon that is 20 to 40 inches thick, on shoulder slopes
- The gravelly Flomaton and Saffell soils on nose slopes
- The loamy Olla soils, which have a brownish subsoil, on shoulder slopes and footslopes
- Scattered areas of severely eroded Maubila soils and gullied land

Similar soils
- Scattered areas of Maubila soils that have a surface layer of loamy sand or sandy loam
- Scattered areas of loamy and clayey soils that contain 10 to 30 percent gravel throughout the profile
- Scattered areas of soils that are loamy sand or sand to a depth of 80 inches or more

Land Use

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

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: Maubila—moderate for loblolly pine; Wadley—high for loblolly pine; Smithdale—very high for loblolly pine
Management concerns: Maubila and Smithdale—erodibility and competition from undesirable plants; Wadley—seedling survival
Management measures and considerations:
- The high content of rock fragments in the surface layer restricts the use of mechanical planting in areas of the Maubila 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 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: Maubila—slope, shrink-swell potential, and wetness; Wadley and Smithdale—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 erosion.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to strengthen foundations and prevents the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Maubila—poorly suited; Wadley and Smithdale—suited
Management concerns: Maubila—restricted permeability, wetness, and slope; Wadley and Smithdale—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 Maubila soil.
- Installing distribution lines during dry periods minimizes smearing and sealing of trench walls in areas of the Maubila soil.
- Installing the distribution lines on the contour improves the performance of the system in areas of the Wadley and Smithdale soils.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Maubila—poorly suited; Wadley and Smithdale—suited
Management concerns: Maubila—slope, low strength, and shrink-swell potential; Wadley and Smithdale—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 Maubila 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 subclass: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Maubila, Wadley, and Smithdale—not hydric

MdA—McCrory-Deerford complex, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Low stream terraces
Landform position: McCrory—flat and slightly concave slopes; Deerford—slightly convex slopes
Shape of areas: Oblong
Size of areas: 5 to 250 acres

Composition

McCrory and similar soils: 60 percent
Deerford and similar soils: 30 percent
Dissimilar soils: 10 percent

Typical Profiles

McCrory

Surface layer:
0 to 4 inches—brown silt loam

Subsurface layer:
4 to 9 inches—light brownish gray silt loam that has brownish mottles

Subsoil:
9 to 14 inches—light brownish gray silt loam that has brownish mottles
14 to 23 inches—yellowish brown and light brownish gray loam that has brownish and reddish mottles
23 to 35 inches—gray loam that has brownish mottles
35 to 47 inches—light brownish gray loam that has brownish mottles
47 to 58 inches—grayish brown fine sandy loam that has brownish mottles

Substratum:
58 to 72 inches—grayish brown fine sandy loam that has brownish mottles

Deerford

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

Subsurface layer:
3 to 7 inches—grayish brown very fine sandy loam that has brownish mottles
7 to 10 inches—light brownish gray and pale brown very fine sandy loam

Subsoil:
10 to 27 inches—light olive brown sandy clay loam that has grayish, brownish, and yellowish mottles
27 to 35 inches—light olive brown clay loam that has grayish and brownish mottles
35 to 49 inches—light brownish gray loam that has brownish and yellowish mottles
49 to 61 inches—light brownish gray very fine sandy loam that has brownish mottles

Substratum:
61 to 80 inches—light gray very fine sandy loam that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: McCrory—poorly drained; Deerford—somewhat poorly drained
Permeability: Slow
Available water capacity: Moderate
Seasonal high water table: McCrory—perched, at the surface to a depth of 1 foot from December through April; Deerford—perched, at a depth of $^1/_2$ to $1^1/_2$ feet from December through April
Shrink-swell potential: Low
Flooding: Occasional for brief periods, mainly from December through April
Content of organic matter in the surface layer: Low
Natural fertility: Moderate
Depth to bedrock: More than 80 inches
Other distinctive properties: Significant content of exchangeable sodium in the subsoil (fig. 7)

Minor Components

Dissimilar soils

- The moderately well drained Izagora and somewhat poorly drained Jedburg soils in the slightly higher positions

Figure 7.—Atamasco lilies and saw palmetto, which are common plants in areas of McCrory-Deerford complex, 0 to 2 percent slopes, occasionally flooded. These plants are indicative of a high content of sodium and other bases in the soils.

- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains

Similar soils
- Scattered areas of soils that are similar to the McCrory and Deerford soils but do not have a significant content of exchangeable sodium within a depth of 40 inches

Land Use

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

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: McCrory—high for loblolly pine and hardwoods; Deerford—very high for loblolly pine and hardwoods
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:

- This map unit is difficult to manage for loblolly pine because of excessive exchangeable sodium, which retards growth and causes higher than normal mortality in seedlings and mature trees. 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 minimizes rutting and compaction.
- Planting seedlings on raised beds helps to establish the 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 to support habitat for: Openland wildlife, forestland wildlife, and wetland wildlife—fair
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.
- 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 as a site for septic tank absorption fields because of the flooding and because the dominant soils have a seasonal high water table at a depth of $^1/_2$ to $1^1/_2$ feet.
- 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 subclass: 4w
Prime farmland status: Not prime farmland
Hydric soil status: McCrory—hydric; Deerford—not hydric

MW—Miscellaneous water

This map unit consists of areas of water that is generally unsuited for consumptive use. Areas include sewage lagoons, fish hatcheries, livestock waste lagoons, sediment ponds, or industrial waste-water holding ponds.

MyA—Myatt fine sandy loam, 0 to 1 percent slopes, occasionally flooded

Setting

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

Composition

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

Typical Profile

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

Subsurface layer:
3 to 7 inches—grayish brown fine sandy loam that has yellowish mottles
7 to 14 inches—light brownish gray loam that has brownish mottles

Subsoil:
14 to 37 inches—light brownish gray sandy clay loam that has brownish and yellowish mottles
37 to 55 inches—light brownish gray loam that has brownish and reddish mottles

Substratum:
55 to 80 inches—light brownish gray sandy loam that has brownish mottles

Soil Properties and Qualities

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
Permeability: Moderate
Available water capacity: High
Shrink-swell potential: Low
Flooding: Occasional for brief periods, mainly from December through April
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The well drained Cahaba soils in the higher, more convex positions
- The moderately well drained Izagora and somewhat poorly drained Jedburg soils in the slightly higher, more convex positions
- The moderately well drained Iuka soils on narrow flood plains
- The sandy, poorly drained Pelham and somewhat poorly drained Ocilla soils in positions similar to those of the Myatt soil

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

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 soil is 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 minimizes rutting and compaction.
- Planting seedlings on raised beds helps to establish the 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.

Wildlife habitat
Potential to support habitat for: Openland wildlife—fair; 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.
- 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 as a site for septic tank absorption fields because of the flooding and because the dominant soil has a seasonal high water table at the surface to 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 subclass: 4w
Prime farmland status: Not prime farmland
Hydric soil status: Myatt—hydric

OcA—Ochlockonee sandy loam, 0 to 2 percent slopes, frequently flooded

Setting

Landform: Flood plains
Landform position: High parts of natural levees
Shape of areas: Long and narrow
Size of areas: 15 to 80 acres

Composition

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

Typical Profile

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

Substratum:
5 to 34 inches—dark yellowish brown loam
34 to 40 inches—dark brown loam
40 to 65 inches—dark yellowish brown sandy loam that has thin strata of loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: Moderate
Seasonal high water table: Apparent, at a depth of 3 to 6 feet from December through April
Shrink-swell potential: Low
Flooding: Frequent for very brief periods, mainly from December through April
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 in depressions and swales
- The moderately well drained Iuka soils in slightly lower, less convex positions than those of the Ochlockonee soil
- The somewhat poorly drained Mantachie soils on low parts of natural levees

Similar soils

- Areas of excessively drained, sandy soils on high parts of natural levees
- Scattered areas of well drained loamy soils that have strata of sand and gravel below a depth of 40 inches

Land Use

Dominant uses: Pasture, forestland, and wildlife habitat

Cropland

Suitability: Poorly suited

Management concerns: This map unit is severely limited for crop production because of the flooding. 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

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.
- 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: Seedling survival and competition from undesirable plants

Management measures and considerations:

- Harvesting timber during the summer or fall reduces the risk of damage from the flooding.
- Restricting logging to periods when the soil is not saturated minimizes rutting 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.
- 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—very poor

Management concerns: Flooding

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.

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 subclass: 4w

Prime farmland status: Not prime farmland

Hydric soil status: Ochlockonee—not hydric

OdB—Ocilla-Pelham complex, gently undulating

Setting

Landform: Stream terraces

Landform position: Ocilla—convex slopes; Pelham—flat and slightly concave slopes

Shape of areas: Oblong

Size of areas: 15 to 150 acres

Composition

Ocilla and similar soils: 50 percent

Pelham and similar soils: 35 percent

Dissimilar soils: 15 percent

Typical Profiles

Ocilla

Surface layer:

0 to 3 inches—dark grayish brown loamy fine sand

Subsurface layer:

3 to 8 inches—light olive brown loamy fine sand that has brownish and grayish mottles

8 to 14 inches—grayish brown loamy fine sand

14 to 23 inches—light brownish gray loamy fine sand that has brownish mottles

23 to 31 inches—light olive brown loamy fine sand that has brownish, reddish, and grayish mottles

Subsoil:

31 to 80 inches—mottled yellowish brown, light brownish gray, and brownish yellow sandy loam

Pelham

Surface layer:

0 to 7 inches—dark grayish brown loamy fine sand that has grayish and brownish mottles

Subsurface layer:

7 to 15 inches—light gray loamy fine sand that has brownish mottles

15 to 32 inches—light brownish gray loamy fine sand that has yellowish mottles

Subsoil:

32 to 45 inches—light brownish gray fine sandy loam that has reddish and brownish mottles

45 to 53 inches—gray sandy loam that has brownish and yellowish mottles

53 to 80 inches—gray sandy clay loam that has yellowish and brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Ocilla—somewhat poorly drained; Pelham—poorly drained
Permeability: Rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Low
Seasonal high water table: Ocilla—perched, at a depth of 1 to 2 feet from December through April; Pelham—perched, at the surface to a depth of 1 foot from December through April
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 moderately well drained, loamy Harleston soils in the slightly higher positions
- Scattered areas of the loamy, somewhat poorly drained Jedburg and poorly drained Myatt soils
- Small areas of Ocilla and Pelham soils that are subject to rare flooding; in the lower positions
- Scattered areas of sandy or loamy soils that have claystone or siltstone bedrock within a depth of 40 to 60 inches

Similar soils
- Scattered areas of soils that are similar to the Pelham soil but have sandy surface and subsurface layers with a combined thickness of more than 40 inches

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: Erodibility, wetness, nutrient leaching, and droughtiness
Management measures and considerations:
- Using well maintained open ditches and diversions to divert and remove excess water improves productivity.
- 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 rainfall infiltration.
- Using supplemental irrigation and planting crop 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.

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, longleaf 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 minimizes 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 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: Wetness
Management measures and considerations:
- Constructing dwellings on raised, well-compacted fill material reduces the risk of damage from wetness.
- Installing a subsurface drainage system helps to lower the seasonal high water table.

Septic tank absorption fields
Suitability: Ocilla—poorly suited; Pelham—unsuited
Management concerns: Wetness and restricted permeability
Management measures and considerations:
- This map unit is difficult to manage as a site for septic tank absorption fields because the dominant soils have a seasonal high water table at the surface to a depth of 2 feet.
- Using suitable fill material to raise the filter 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: Wetness
Management measures and considerations:
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness.
- Intercepting the underground water from seeps and springs and diverting it away from cut-and-fill slopes improves the stability of the slopes.

Interpretive Groups

Land capability subclass: Ocilla—3w; Pelham—4w
Prime farmland status: Not prime farmland
Hydric soil status: Ocilla—not hydric; Pelham—hydric

OkF—Okeelala-Brantley complex, 15 to 35 percent slopes

Setting

Landform: Hillslopes
Landform position: Okeelala—nose slopes, footslopes, and shoulder slopes; Brantley—backslopes
Shape of areas: Irregular
Size of areas: 10 to 1,200 acres

Composition

Okeelala and similar soils: 50 percent
Brantley and similar soils: 35 percent
Dissimilar soils: 15 percent

Typical Profiles

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

Subsurface layer:
3 to 13 inches—brown loamy fine sand

Subsoil:
13 to 18 inches—strong brown sandy loam
18 to 33 inches—red sandy clay loam
33 to 58 inches—yellowish red sandy loam

Substratum:
58 to 65 inches—yellowish red loamy sand
65 to 80 inches—strong brown loamy sand that has yellowish mottles

Brantley
Surface layer:
0 to 3 inches—dark brown fine sandy loam
3 to 11 inches—dark yellowish brown fine sandy loam

Subsoil:
11 to 21 inches—red clay
21 to 43 inches—red clay loam
43 to 56 inches—mottled yellowish red, red, and light yellowish brown loam

Substratum:
56 to 68 inches—reddish brown loam that has reddish and yellowish mottles
68 to 80 inches—mottled yellowish red and pale yellow silt loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Okeelala—moderate; Brantley—moderately slow
Available water capacity: Okeelala—moderate; Brantley—high
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Okeelala—low; Brantley—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 components

- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Brantley and Okeelala soils that have a slope of less than 15 percent or more than 35 percent
- The moderately well drained Lorman soils on footslopes
- The moderately well drained Toxey soils on shoulder slopes
- The gravelly Flomaton and Saffell soils on shoulder slopes and nose slopes
- Scattered areas of limestone outcrop

Similar soils

- Scattered areas of soils that are similar to the Brantley soil but are alkaline in the substratum
- Scattered areas of Brantley and Okeelala soils that have a surface layer of gravelly sandy loam
- Scattered areas of Smithdale soils, which are similar to the Okeelala soils but have a lower base saturation in the lower part of the subsoil

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: Okeelala—slope; Brantley—slope and shrink-swell potential
Management measures and considerations:
• Reinforcing foundations and footings or backfilling with coarse-textured material helps to strengthen foundations and prevents the damage caused by shrinking and swelling in areas of the Brantley soil.
• 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.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Okeelala—slope; Brantley—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 Brantley soil.
• Installing distribution lines during dry periods minimizes smearing and sealing of trench walls in areas of the Brantley soil.
• The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Suited
Management concerns: Okeelala—slope; Brantley—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 in areas of the Brantley 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 subclass: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Okeelala and Brantley—not hydric

OmC—Olla-Maubila complex, 2 to 8 percent slopes

Setting

Landform: Narrow ridges
Landform position: Olla—summits and shoulder slopes; Maubila—knolls, shoulder slopes, and saddles
Shape of areas: Irregular
Size of areas: 10 to 250 acres

Composition

Olla and similar soils: 45 percent
Maubila and similar soils: 40 percent
Dissimilar soils: 15 percent

Typical Profiles

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

Subsurface layer:
4 to 13 inches—brownish yellow loamy fine sand

Subsoil:
13 to 22 inches—yellowish brown sandy clay loam
22 to 37 inches—yellowish brown fine sandy loam

Substratum:
37 to 80 inches—brownish yellow sandy clay loam that has reddish, brownish, and grayish mottles

Maubila
Surface layer:
0 to 5 inches—dark grayish brown flaggy sandy loam

Subsurface layer:
5 to 8 inches—yellowish brown flaggy sandy loam

Subsoil:
8 to 15 inches—strong brown clay loam
15 to 22 inches—strong brown clay that has reddish and brownish mottles
22 to 42 inches—mottled brownish yellow, light gray, and weak red clay
42 to 55 inches—light gray clay loam that has reddish and yellowish mottles

Substratum:
55 to 80 inches—mottled weak red, light gray, and brownish yellow clay

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Olla—well drained; Maubila—moderately well drained
Permeability: Olla—moderately slow; Maubila—slow
Available water capacity: Moderate
Seasonal high water table: Olla—more than 6 feet; Maubila—perched, at a depth of 2 to 3$^1/_2$ feet from December through March
Shrink-swell potential: Olla—low; Maubila—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 sandy Boykin and Wadley soils on knolls and shoulder slopes
- The clayey, well drained Luverne soils in positions similar to those of the Maubila soil
- The loamy Smithdale soils, which have a reddish subsoil, on shoulder slopes and knolls

Similar soils

- Scattered areas of Maubila soils that have rounded pebbles and cobbles of quartzite in the surface and subsurface layers
- Scattered areas of Maubila soils that have surface and subsurface layers of sandy loam or loamy sand

Land Use

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

Cropland

Suitability: Poorly suited
Commonly grown crops: Corn, cotton, and soybeans
Management concerns: Erodibility and equipment use
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 erosion, help to control surface runoff, and maximize infiltration of rainfall.
- This map unit is difficult to till because of the high content of rock fragments in the surface layer of the Maubila soil. In some areas, large stones on the surface can interfere with the use of tillage equipment.
- 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, equipment use, and soil fertility
Management measures and considerations:

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- 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.

- 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: Olla—high for loblolly pine and longleaf pine; Maubila—moderate for loblolly pine and longleaf pine
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- The high content of rock fragments in the surface layer of the Maubila soil restricts the use of mechanical planting.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Special site preparation practices, such as harrowing and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.

Wildlife habitat

Potential to support habitat for: Openland wildlife—good; 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: Olla—well suited; Maubila—poorly suited
Management concerns: Olla—no significant limitations; Maubila—shrink-swell potential and wetness
Management measures and considerations:
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to strengthen foundations and prevents the damage caused by shrinking and swelling in areas of the Maubila soil.
- Large stones and boulders may be encountered during excavation.
- Installing a subsurface drainage system helps to lower the seasonal high water table.

Septic tank absorption fields

Suitability: Poorly suited
Management concerns: Olla—restricted permeability; Maubila—restricted permeability and wetness
Management measures and considerations:
- Installing distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing distribution lines during dry periods minimizes smearing and sealing of trench walls.
- Using suitable fill material to raise the filter field a sufficient distance above the

seasonal high water table improves the performance of the system in areas of the Maubila soil.
- The local health department can be contacted for additional guidance regarding sanitary facilities.

Local roads and streets
Suitability: Olla—well suited; Maubila—suited
Management concerns: Olla—no significant limitations; Maubila—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 Maubila soil.
- 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.

Interpretive Groups

Land capability subclass: Olla—3e; Maubila—4e
Prime farmland status: Not prime farmland
Hydric soil status: Olla and Maubila—not hydric

Pg—Pits

Setting

Landform: Ridges, hillslopes, and terraces
Landform position: Summits, shoulder slopes, and side slopes
Shape of areas: Rectangular or horseshoe
Size of areas: 5 to 500 acres

Composition

Pits: 90 percent
Dissimilar areas: 10 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
- Bama, Boykin, Flomaton, Lucedale, Luverne, Saffell, Smithdale, and Wadley soils near the edges of mapped areas on high stream terraces and ridges

- Cahaba and Izagora soils near the edges of mapped areas on low stream terraces
- Fluvaquents in small depressions that are intermittently ponded

Land Use

Dominant uses: Source of sand, gravel, clay, and fill material (fig. 8)
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 subclass: 8s
Prime farmland status: Not prime farmland
Hydric soil status: Pits—not hydric

PrG—Prim-Eutrudepts complex, 35 to 60 percent slopes, very stony

Setting

Landform: Hillslopes
Landform position: Prim—summits of narrow ridges, shoulder slopes, upper parts of backslopes, and benches; Eutrudepts—benches, footslopes, and the lower parts of backslopes
Shape of areas: Irregular
Size of areas: 20 to 150 acres

Figure 8.—A large sand and gravel pit, map unit Pg, near Rabbit Creek, northeast of Jackson. This area was formerly Flomaton-Smithdale-Wadley complex, 10 to 25 percent slopes. The layers of sand and gravel are several feet thick and the deposits are presumed to be of Pleistocene or Pliocene age.

Composition

Prim and similar soils: 45 percent
Eutrudepts and similar soils: 40 percent
Dissimilar soils: 15 percent

Typical Profiles

Prim

Surface layer:
0 to 7 inches—black very cobbly clay loam

Substratum:
7 to 15 inches—olive gray extremely cobbly sandy loam
15 to 80 inches—light gray chalk that is interbedded with lenses of hard limestone

Eutrudepts

No typical profile has been selected. These soils are highly variable in texture and depth to bedrock, ranging from loamy to clayey and from shallow to deep.

Soil Properties and Qualities

Depth class: Prim—shallow; Eutrudepts—variable
Drainage class: Well drained
Permeability: Prim—moderate; Eutrudepts—variable
Available water capacity: Prim—very low; Eutrudepts—variable
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Prim—moderate; Eutrudepts—variable
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Medium
Depth to bedrock: Prim—10 to 20 inches; Eutrudepts—10 to 60 inches

Minor Components

Dissimilar components

- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The very deep, clayey Lorman and Toxey soils on knolls, benches, and shoulder slopes
- The very deep, loamy Okeelala and clayey Brantley soils on the upper or lower parts of slopes
- Prim soils that have a slope of less than 35 percent
- Prim soils that are extremely bouldery or extremely stony; on knolls, shoulder slopes, and nose slopes
- The clayey Suggsville soils that have chalk and limestone bedrock at a depth of 40 to 60 inches; on summits and benches
- The shallow, clayey Watsonia soils in positions similar to those of the Prim soil
- Scattered areas of limestone outcrop

Similar soils

- Scattered areas of Prim soils and Eutrudepts that have 5 to 15 percent rounded fragments of chert and quartzite throughout the profile
- Scattered areas of shallow, loamy soils that have less than 35 percent rock fragments throughout the profile

Land Use

Dominant uses: Forestland and wildlife habitat

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: Unsuited

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

Forestland

Suitability: Poorly suited

Productivity class: Moderate for eastern redcedar and hardwoods

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

Management measures and considerations:

- Most areas of this map unit are unsuited to pine production because the dominant soils are too alkaline.
- Planting appropriate species as recommended by a forester maximizes productivity and helps to ensure planting success.
- 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.
- Maintaining litter on the surface increases the water infiltration rate and reduces the seedling mortality rate.
- 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 the slope exceeds about 50 percent.
- 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—poor; 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.

Urban development

Suitability: Unsuited

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

Interpretive Groups

Land capability subclass: Prim—7s; Eutrudepts—7e
Prime farmland status: Not prime farmland
Hydric soil status: Prim and Eutrudepts—not hydric

PwC—Prim-Suggsville-Watsonia complex, 2 to 10 percent slopes

Setting

Landform: Ridges and benches
Landform position: Prim and Watsonia—summits and shoulder slopes; Suggsville—summits, upper parts of backslopes, and saddles
Shape of areas: Irregular
Size of areas: 20 to 500 acres

Composition

Prim and similar soils: 40 percent
Suggsville and similar soils: 35 percent
Watsonia and similar soils: 15 percent
Dissimilar soils: 10 percent

Typical Profiles

Prim
Surface layer:
0 to 7 inches—black very cobbly clay loam

Substratum:
7 to 15 inches—olive gray extremely cobbly sandy loam
15 to 80 inches—light gray chalk that is interbedded with lenses of hard limestone

Suggsville
Surface layer:
0 to 1 inch—very dark brown clay

Subsurface layer:
1 to 4 inches—brown and reddish brown clay

Subsoil:
4 to 11 inches—yellowish red clay
11 to 21 inches—red clay
21 to 26 inches—mottled strong brown and yellowish red clay
26 to 42 inches—strong brown clay that has reddish mottles

Substratum:
42 to 80 inches—light gray limestone that is interbedded with weathered chalk

Watsonia
Surface layer:
0 to 4 inches—dark brown clay

Subsoil:
4 to 17 inches—yellowish red clay

Substratum:
17 to 80 inches—light gray chalk that is interbedded with lenses of hard limestone

Soil Properties and Qualities

Depth class: Prim and Watsonia—shallow; Suggsville—deep
Drainage class: Well drained
Permeability: Prim—moderate; Suggsville and Watsonia—very slow
Available water capacity: Prim and Watsonia—very low; Suggsville—moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Prim—moderate; Suggsville and Watsonia—very high
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Medium
Depth to bedrock: Prim and Watsonia—10 to 20 inches; Suggsville—40 to 60 inches

Minor Components

Dissimilar components
- The very deep, clayey Lorman and Toxey soils on knolls, benches, and shoulder slopes
- The very deep, loamy Okeelala and clayey Brantley soils on the upper parts of slopes
- Prim, Suggsville, and Watsonia soils that have a slope of more than 10 percent
- Prim soils that are extremely bouldery or extremely stony; on knolls, shoulder slopes, and nose slopes
- Scattered areas of limestone outcrop (fig. 9)

Similar soils
- Scattered areas of Prim and Suggsville soils that have 5 to 15 percent rounded chert and quartzite fragments throughout the profile
- Scattered areas of shallow, loamy soils that have less than 35 percent rock fragments throughout the profile
- Scattered areas of soils that are similar to the Suggsville and Watsonia soils but have interbedded chalk and limestone bedrock at a depth of 20 to 40 inches

Land Use

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

Cropland
Suitability: Poorly suited
Commonly grown crops: Soybeans and small grains
Management concerns: Erodibility, equipment use, rooting depth, and tilth
Management measures and considerations:
- This map unit is difficult to manage economically for crop production because of the shallow rooting depth in the Prim and Watsonia soils.
- In some areas, large stones on the surface can interfere with the use of tillage equipment. Removing the larger stones and limiting equipment use to the larger open areas minimize wear on the equipment.
- Contour tillage, stripcropping, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Tilling during dry periods and either incorporating crop residue into the surface or leaving it on the surface minimize clodding and crusting and maximize infiltration of water.

Pasture and hayland
Suitability: Suited to pasture; unsuited to hayland
Commonly grown crops: Tall fescue, dallisgrass, and Johnsongrass
Management concerns: Erodibility, equipment use, and restricted rooting depth

Figure 9.—A limestone outcrop in an area of Prim-Suggsville-Watsonia complex, 2 to 10 percent slopes. The shallow Prim and Watsonia soils occur in close proximity to areas of rock outcrop. Redcedar is the dominant vegetation in areas of the alkaline Prim soils.

Management measures and considerations:
- This map unit is difficult to manage economically for pasture and hayland because of the shallow rooting depth in the Prim and Watsonia soils.
- 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.
- 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.

Forestland

Suitability: Suited
Productivity class: Prim—moderate for eastern redcedar; Suggsville—very high for loblolly pine; Watsonia—high for loblolly pine
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- Areas of the Prim soil are unsuited to pine production because the soil is too alkaline. Natural regeneration of hardwoods should be considered.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the Suggsville and Watsonia soils.
- Restricting logging during wet periods minimizes rutting and the root damage caused by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.
- 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.

Wildlife habitat

Potential of the Prim soil to support habitat for: Openland wildlife and forestland wildlife—poor; wetland wildlife—very poor
Potential of the Suggsville soil to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Potential of the Watsonia soil to support habitat for: Openland wildlife—fair; 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: Prim—depth to rock, large stones, and shrink-swell potential;

Suggsville—shrink-swell potential; Watsonia—depth to rock and shrink-swell potential

Management measures and considerations:
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to strengthen foundations and prevents the damage caused by shrinking and swelling.
- Large stones and boulders may be encountered during excavation.
- The soft bedrock underlying the soils 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: Prim—depth to rock and large stones; Suggsville and Watsonia—depth to rock 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: Prim—depth to rock, large stones, and shrink-swell potential; Suggsville—shrink-swell potential and low strength; Watsonia—depth to rock, low strength, and shrink-swell potential

Management measures and considerations:
- The soft bedrock underlying the soils 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 Suggsville and Watsonia soils.

Interpretive Groups

Land capability subclass: Prim—6s; Suggsville—4e; and Watsonia—6e

Prime farmland status: Not prime farmland

Hydric soil status: Prim, Suggsville, and Watsonia—not hydric

PwF—Prim-Suggsville-Watsonia complex, 10 to 40 percent slopes

Setting

Landform: Hillslopes

Landform position: Prim and Watsonia—summits of narrow ridges, shoulder slopes, upper parts of backslopes, and benches; Suggsville—footslopes and lower parts of backslopes

Shape of areas: Irregular

Size of areas: 20 to 1,500 acres

Composition

Prim and similar soils: 50 percent

Suggsville and similar soils: 20 percent

Watsonia and similar soils: 15 percent
Dissimilar soils: 15 percent

Typical Profiles

Prim

Surface layer:
0 to 7 inches—black very cobbly clay loam

Substratum:
7 to 15 inches—olive gray extremely cobbly sandy loam
15 to 80 inches—light gray chalk that is interbedded with lenses of hard limestone

Suggsville

Surface layer:
0 to 1 inch—very dark brown clay

Subsurface layer:
1 to 4 inches—brown and reddish brown clay

Subsoil:
4 to 11 inches—yellowish red clay
11 to 21 inches—red clay
21 to 26 inches—mottled strong brown and yellowish red clay
26 to 42 inches—strong brown clay that has reddish mottles

Substratum:
42 to 80 inches—light gray limestone that is interbedded with weathered chalk

Watsonia

Surface layer:
0 to 4 inches—dark brown clay

Subsoil:
4 to 17 inches—yellowish red clay

Substratum:
17 to 80 inches—light gray chalk that is interbedded with lenses of hard limestone

Soil Properties and Qualities

Depth class: Prim and Watsonia—shallow; Suggsville—deep
Drainage class: Well drained
Permeability: Prim—moderate; Suggsville and Watsonia—very slow
Available water capacity: Prim and Watsonia—very low; Suggsville—moderate
Depth to seasonal high water table: More than 6 feet
Shrink-swell potential: Prim—moderate; Suggsville and Watsonia—very high
Flooding: None
Content of organic matter in the surface layer: Low
Natural fertility: Medium
Depth to bedrock: Prim and Watsonia—10 to 20 inches; Suggsville—40 to 60 inches

Minor Components

Dissimilar components

- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The very deep, clayey Lorman and Toxey soils on benches and shoulder slopes
- The very deep, loamy Okeelala and clayey Brantley soils on the upper parts of slopes
- Prim, Suggsville, and Watsonia soils that have a slope of less than 10 percent or more than 40 percent

- Prim soils that are extremely bouldery or extremely stony; on knolls, shoulder slopes, and nose slopes
- Scattered areas of limestone outcrop

Similar soils
- Scattered areas of Prim and Suggsville soils that have 5 to 15 percent rounded fragments of chert and quartzite throughout the profile
- Scattered areas of shallow, loamy soils that have less than 35 percent rock fragments throughout the profile
- Scattered areas of soils that are similar to the Suggsville and Watsonia soils but have interbedded chalk and limestone bedrock at a depth of 20 to 40 inches

Land Use

Dominant uses: Forestland and wildlife habitat

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 restricted 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 in the Prim and Watsonia soils.
- 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.
- 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.
- 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: Prim—moderate for eastern redcedar; Suggsville—very high for loblolly pine; Watsonia—high for loblolly pine
Management concerns: Erodibility, equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- Areas of the Prim 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 Suggsville and Watsonia soils.
- 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 erosion and the siltation of streams.

- 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 Prim soil to support habitat for: Openland wildlife and forestland wildlife—poor; wetland wildlife—very poor

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

Potential of the Watsonia soil to support habitat for: Openland wildlife—fair; 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: Prim—slope, depth to rock, large stones, and shrink-swell potential; Suggsville—slope and shrink-swell potential; Watsonia—slope, depth to rock, 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 strengthen foundations and prevents the damage caused by shrinking and swelling.
- Large stones and boulders may be encountered during excavation.
- The soft bedrock underlying the soils 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: Prim—slope, depth to rock, and large stones; Suggsville and Watsonia—slope, depth to rock, 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: Prim—slope, depth to rock, large stones, and shrink-swell potential; Suggsville—slope, shrink-swell potential, and low strength; Watsonia—slope, depth to rock, low strength, and shrink-swell potential

Management measures and considerations:

- The soft bedrock underlying the soils 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 Suggsville and Watsonia soils.
- 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 subclass: Prim—7s; Suggsville and Watsonia—7e

Prime farmland status: Not prime farmland

Hydric soil status: Prim, Suggsville, and Watsonia—not hydric

RaD—Rayburn silt loam, 5 to 15 percent slopes

Setting

Landform: Hillslopes

Landform position: Backslopes and footslopes

Shape of areas: Irregular

Size of areas: 10 to 80 acres

Composition

Rayburn and similar soils: 85 percent

Dissimilar soils: 15 percent

Typical Profile

Surface layer:

0 to 5 inches—dark brown silt loam

Subsurface layer:

5 to 8 inches—brown loam and silt loam

Subsoil:

8 to 20 inches—red clay

20 to 26 inches—yellowish red clay that has brownish and reddish mottles

26 to 36 inches—grayish brown silty clay that has reddish and brownish mottles

36 to 52 inches—light brownish gray silty clay that has reddish and yellowish mottles

Substratum:

52 to 59 inches—stratified weathered siltstone and light brownish gray clay

59 to 80 inches—grayish brown siltstone

Soil Properties and Qualities

Depth class: Deep

Drainage class: Moderately well drained

Permeability: Very slow
Available water capacity: Moderate
Seasonal high water table: Perched, at a depth of 2$^1/_2$ to 4$^1/_2$ feet from December through March
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 weathered siltstone or claystone

Minor Components

Dissimilar soils
- The moderately deep Arundel soils on the upper parts of slopes
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The very deep, well drained Luverne soils on the upper parts of slopes
- Rayburn soils that have a slope of less than 5 percent or more than 15 percent
- The loamy Smithdale soils on the lower parts of slopes

Similar soils
- Scattered areas of soils that are similar to the Rayburn soils but are more than 60 inches deep over bedrock

Land Use

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

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn and small grains
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Contour farming, no-till planting, crop residue management, stripcropping, and sod-based rotations reduce the hazard of erosion, stabilize the soil, 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 to pasture; suited to hayland
Commonly grown crops: Coastal bermudagrass, bahiagrass, 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 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.
- 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:
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- 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.
- Special site preparation practices, such as harrowing and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.

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: Poorly suited
Management concerns: Slope and shrink-swell potential
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.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to strengthen foundations and prevents the damage caused by shrinking and swelling.

Septic tank absorption fields
Suitability: Unsuited
Management concerns: Restricted permeability and wetness
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, help to maintain the stability of the road.

Interpretive Groups

Land capability subclass: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Rayburn—not hydric

RvA—Riverview fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains
Landform position: High parts of natural levees
Shape of areas: Oblong
Size of areas: 20 to 500 acres

Composition

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

Typical Profile

Surface layer:
0 to 12 inches—brown fine sandy loam

Subsoil:
12 to 44 inches—dark yellowish brown loam

Substratum:
44 to 62 inches—dark yellowish brown sandy loam that has brownish mottles
62 to 69 inches—brown loam that has brownish mottles
69 to 80 inches—pale brown fine sandy loam that has brownish and grayish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: High
Seasonal high water table: Apparent, at a depth of 3 to 5 feet from December through April
Shrink-swell potential: Low
Flooding: Occasional for brief periods, mainly from December through April
Content of organic matter in the surface layer: Low
Natural fertility: Medium
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- The moderately well drained Mooreville soils in the slightly lower, less convex positions
- Excessively drained, sandy soils in the slightly higher positions
- The clayey, somewhat poorly drained Urbo soils on the lower parts of natural levees
- The poorly drained Una soils in narrow sloughs and swales

Similar soils
- Scattered areas of Ochlockonee soils, which have less clay in the subsoil than the Riverview soil

- Scattered areas of Riverview soils that have a surface layer of loamy sand
- Scattered areas of Riverview soils that have a buried surface layer within a depth of 20 to 40 inches

Land Use

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

Cropland
Suitability: Suited
Commonly grown crops: Cotton, corn, soybeans, and grain sorghum
Management concerns: Flooding
Management measures and considerations:
- Although most of the flooding occurs during the winter and spring, crops may be damaged during the growing season.
- Harvesting row crops as soon as possible reduces the risk of damage from the flooding.

Pasture and hayland
Suitability: Well suited
Commonly grown crops: Coastal bermudagrass, bahiagrass, and white clover
Management concerns: Flooding
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 rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.

Forestland
Suitability: Well suited
Productivity class: Very high for loblolly pine
Management concerns: Flooding
Management measures and considerations:
- Harvesting timber during the summer or fall reduces the risk of damage from the flooding.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—poor
Management concerns: Flooding
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: Unsuited
Management concerns: This map unit is very limited as a site for dwellings because of the flooding. A site that has better suited soils should be selected.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Flooding and wetness
Management measures and considerations:
- Using suitable fill material to raise the filter 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: Suited
Management concerns: Flooding and low strength
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 subclass: 2w
Prime farmland status: Prime farmland
Hydric soil status: Riverview—not hydric

SaA—Savannah fine sandy loam, 0 to 2 percent slopes

Setting

Landform: High stream terraces
Landform position: Summits
Shape of areas: Irregular
Size of areas: 20 to 150 acres

Composition

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

Typical Profile

Surface layer:
0 to 5 inches—very dark grayish brown and dark grayish brown fine sandy loam

Subsurface layer:
5 to 12 inches—light olive brown fine sandy loam

Subsoil:
12 to 26 inches—yellowish brown loam
26 to 34 inches—light olive brown sandy clay loam fragipan that has reddish, brownish, and grayish mottles
34 to 42 inches—mottled light yellowish brown and yellowish brown clay loam fragipan that has reddish and grayish mottles
42 to 59 inches—yellowish brown loam fragipan that has grayish mottles
59 to 71 inches—yellowish brown clay loam that has grayish mottles
71 to 80 inches—light gray sandy clay loam that has brownish mottles

Soil Properties and Qualities

Depth class: Moderately deep to a root-restricting fragipan
Drainage class: Moderately well drained

Permeability: Moderately slow
Available water capacity: Moderate
Seasonal high water table: Perched, at a depth of 1½ to 3 feet from December through April
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 somewhat poorly drained Quitman soils in shallow depressions and swales
- Izagora soils, which do not have a fragipan, in positions similar to those of the Savannah soil
- The well drained Smithdale soils, which do not have a fragipan, on the slightly higher knolls
- Savannah soils that have a slope of more than 2 percent

Similar soils
- Scattered areas of Savannah soils that have a surface layer of silt loam or loam

Land Use

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

Cropland
Suitability: Well suited
Commonly grown crops: Corn, cotton, peanuts, soybeans, and grain sorghum
Management concerns: Wetness and rooting depth
Management measures and considerations:
- Installing and maintaining an artificial drainage system reduces the wetness and improves productivity.
- Chisel plowing and subsoiling help to break through hardpans, increasing root penetration and rainfall infiltration.
- 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 and coastal bermudagrass
Management concerns: Wetness and rooting depth
Management measures and considerations:
- Chisel plowing and subsoiling during seedbed preparation help to break through hardpans, increasing root penetration and rainfall infiltration.
- 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 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: Wetness
Management measures and considerations:
- Installing a subsurface drainage system helps to lower the seasonal high water table.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Wetness and restricted permeability
Management measures and considerations:
- Using suitable fill material to raise the filter field a sufficient distance above the seasonal high water table and increasing the size of the absorption field improve the performance of the system.
- Installing 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 wetness
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.
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness.

Interpretive Groups

Land capability subclass: 2w
Prime farmland status: Prime farmland
Hydric soil status: Savannah—not hydric

SbB—Smithdale-Boykin complex, 2 to 5 percent slopes

Setting

Landform: Ridges
Landform position: Summits, shoulder slopes, and knolls

Shape of areas: Irregular
Size of areas: 5 to 650 acres

Composition

Smithdale and similar soils: 60 percent
Boykin and similar soils: 25 percent
Dissimilar soils: 15 percent

Typical Profiles

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

Subsurface layer:
3 to 8 inches—yellowish brown loamy sand

Subsoil:
8 to 13 inches—yellowish red sandy loam
13 to 42 inches—red sandy clay loam
42 to 80 inches—red sandy loam

Boykin
Surface layer:
0 to 5 inches—dark grayish brown loamy sand

Subsurface layer:
5 to 14 inches—dark grayish brown and yellowish brown loamy sand
14 to 26 inches—light yellowish brown loamy sand

Subsoil:
26 to 38 inches—yellowish red sandy loam
38 to 80 inches—red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Smithdale—moderate; Boykin—rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Smithdale—high; Boykin—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 clayey Arundel and Luverne soils in saddles
- Bama soils, which do not have thick, sandy surface and subsurface layers and do not have a significant decrease in clay content with depth; on summits
- Scattered areas of the gravelly Saffell soils
- Smithdale and Boykin soils that have a slope of less than 2 percent or more than 5 percent
- The sandy, somewhat excessively drained Wadley soils on small knolls

Similar soils
- Scattered areas of loamy soils that contain 10 to 35 percent gravel throughout the profile

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

Land Use

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

Cropland
Suitability: Suited
Commonly grown crops: Corn, peanuts, small grains, and truck crops
Management concerns: Smithdale—erodibility; Boykin—erodibility and droughtiness
Management measures and considerations:
- Conservation tillage, winter cover crops, crop residue management, and crop rotations that include grasses and legumes increase available water capacity and improve fertility.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase production.
- 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 and droughtiness
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 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: Smithdale—very high for loblolly pine; Boykin—high for loblolly pine
Management concerns: Smithdale—no significant limitations affect management for timber production; Boykin—seedling survival
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: 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: 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 subclass: Smithdale—2e; Boykin—2s
Prime farmland status: Not prime farmland
Hydric soil status: Smithdale and Boykin—not hydric

SbD—Smithdale-Boykin complex, 5 to 15 percent slopes

Setting

Landform: Hillslopes
Landform position: Smithdale—backslopes and shoulder slopes; Boykin—upper parts of backslopes and footslopes
Shape of areas: Irregular
Size of areas: 5 to 350 acres

Composition

Smithdale and similar soils: 55 percent
Boykin and similar soils: 30 percent
Dissimilar soils: 15 percent

Typical Profiles

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

Subsurface layer:
3 to 8 inches—yellowish brown loamy sand

Subsoil:
8 to 13 inches—yellowish red sandy loam
13 to 42 inches—red sandy clay loam
42 to 80 inches—red sandy loam

Boykin
Surface layer:
0 to 5 inches—dark grayish brown loamy sand

Subsurface layer:
5 to 14 inches—dark grayish brown and yellowish brown loamy sand
14 to 26 inches—light yellowish brown loamy sand

Subsoil:
26 to 38 inches—yellowish red sandy loam
38 to 80 inches—red sandy clay loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Smithdale—moderate; Boykin—rapid in the surface and subsurface layers and moderate in the subsoil
Available water capacity: Smithdale—high; Boykin—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 clayey Arundel and Luverne soils on the lower parts of slopes
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- The gravelly Saffell soils on shoulder slopes and nose slopes
- Smithdale and Boykin soils that have a slope of less than 5 percent or more than 15 percent
- The sandy, somewhat excessively drained Wadley soils on the upper parts of backslopes and on footslopes

Similar soils
- Scattered areas of loamy soils that contain 10 to 35 percent gravel throughout the profile
- Scattered areas of Smithdale soils that have a surface layer of sandy loam

Land Use

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

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn, small grains, and truck crops
Management concerns: Smithdale—erodibility; Boykin—erodibility and droughtiness
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 erosion, helps to control surface runoff, and maximizes infiltration of water.
- Using supplemental irrigation and planting crop varieties that are adapted to droughty conditions increase production.
- 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 to pasture; suited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility, equipment use, and droughtiness
Management measures and considerations:
- The slope may limit equipment use in the steeper areas when hay is harvested.
- 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 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: Smithdale—very high for loblolly pine; Boykin—high for loblolly pine
Management concerns: Smithdale—no significant limitations affect management for timber production; Boykin—seedling survival
Management measures and considerations:
- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—good; wetland wildlife—very poor
Management concerns: Erodibility 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:
- 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.

Septic tank absorption fields
Suitability: Suited
Management concerns: Slope
Management measures and considerations:
- Installing the distribution lines on the contour improves the performance of septic tank absorption fields.

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 subclass: Smithdale—4e; Boykin—4s
Prime farmland status: Not prime farmland
Hydric soil status: Smithdale and Boykin—not hydric

SsF—Smithdale-Saffell complex, 15 to 45 percent slopes

Setting

Landform: Hillslopes
Landform position: Smithdale—shoulder slopes, backslopes, and footslopes; Saffell—shoulder slopes, nose slopes, and upper parts of backslopes
Shape of areas: Irregular
Size of areas: 20 to 500 acres

Composition

Smithdale and similar soils: 50 percent
Saffell and similar soils: 40 percent
Dissimilar soils: 10 percent

Typical Profiles

Smithdale
Surface layer:
0 to 2 inches—brown sandy loam

Subsurface layer:
2 to 7 inches—strong brown sandy loam

Subsoil:
7 to 35 inches—yellowish red and red sandy clay loam
35 to 63 inches—red and yellowish red sandy loam

Substratum:
63 to 80 inches—reddish yellow loamy sand

Saffell
Surface layer:
0 to 1 inch—very dark grayish brown gravelly sandy loam
1 to 7 inches—brown gravelly sandy loam

Subsoil:
7 to 14 inches—yellowish red very gravelly sandy clay loam and brown very gravelly sandy loam
14 to 29 inches—red extremely gravelly sandy clay loam
29 to 55 inches—red very gravelly sandy loam

Substratum:
55 to 80 inches—red very gravelly loamy sand

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: Smithdale—high; Saffell—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 and moderately well drained Iuka soils on narrow flood plains

- Boykin and Wadley soils, which have thick, sandy surface and subsurface layers, on the upper and lower parts of slopes
- The clayey Brantley and Luverne soils on the lower parts of slopes

Similar soils
- Scattered areas of Flomaton soils that are similar to the Saffell soil but have a lower content of clay in the subsoil
- Scattered areas of loamy soils that have 10 to 35 percent gravel throughout the profile

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: Poorly suited to pasture; unsuited to hayland
Commonly grown crops: Coastal bermudagrass and bahiagrass
Management concerns: Erodibility and equipment use
Management measures and considerations:
- This map unit is difficult to manage for pasture and hayland because of the slope.
- 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: Smithdale—very high for loblolly pine; Saffell—high for loblolly pine
Management concerns: Smithdale—erodibility and equipment use; Saffell—equipment use and seedling survival
Management measures and considerations:
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Planting rates can be increased to compensate for the high rate of seedling mortality in areas of the Saffell soil.
- 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—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:
- 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.

Septic tank absorption fields
Suitability: Poorly suited
Management concerns: Slope
Management measures and considerations:
- Installing the distribution lines on the contour improves the performance of 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: 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 subclass: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Smithdale and Saffell—not hydric

ToD—Toxey-Lorman complex, 5 to 15 percent slopes

Setting

Landform: Ridges and hillslopes
Landform position: Toxey—summits of narrow ridges, shoulder slopes, and upper parts of backslopes; Lorman—lower parts of backslopes and on footslopes
Shape of areas: Irregular
Size of areas: 20 to 300 acres

Composition

Toxey and similar soils: 50 percent
Lorman and similar soils: 35 percent
Dissimilar soils: 15 percent

Typical Profiles

Toxey
Surface layer:
0 to 3 inches—very dark grayish brown and dark grayish brown silty clay loam

Subsoil:
3 to 7 inches—brown clay
7 to 13 inches—yellowish brown clay that has reddish and grayish mottles
13 to 27 inches—mottled light olive brown and yellowish brown clay
27 to 31 inches—light olive brown silty clay that has grayish and yellowish mottles

Substratum:
31 to 40 inches—light brownish gray silty clay loam that has brownish mottles
40 to 80 inches—mottled light yellowish brown and grayish brown clay loam

Lorman
Surface layer:
0 to 5 inches—very dark gray fine sandy loam

Subsurface layer:
5 to 9 inches—dark grayish brown fine sandy loam that has brownish mottles

Subsoil:
9 to 18 inches—yellowish red clay that has brownish and reddish mottles
18 to 26 inches—red and brown clay that has grayish mottles
26 to 55 inches—light yellowish brown clay that has reddish and grayish mottles
55 to 60 inches—light yellowish brown clay that has brownish mottles and has nodules of calcium carbonate

Substratum:
60 to 76 inches—very pale brown clay that has yellowish mottles and has nodules of calcium carbonate
76 to 80 inches—mottled pale yellow and white clay loam that has soft masses of calcium carbonate

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Moderately 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: Medium
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 well drained Brantley and Luverne soils on shoulder slopes and the upper parts of backslopes
- Lorman and Toxey soils that have a slope of less than 5 percent or more than 15 percent
- The shallow Prim and Watsonia soils on knolls, shoulder slopes, and benches
- Suggsville soils, which have interbedded limestone and chalk bedrock at a depth of 40 to 60 inches, on the lower parts of slopes

Similar soils
- Scattered areas of soils that are similar to the Toxey soil but are alkaline to the surface
- Scattered areas of soils that are similar to the Lorman soil but have bedrock at a depth of 60 to 80 inches

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Pasture

Cropland
Suitability: Poorly suited
Commonly grown crops: Corn and small grains
Management concerns: Erodibility and equipment use
Management measures and considerations:
- Contour farming, no-till planting, crop residue management, stripcropping, and sod-based rotations reduce the hazard of erosion, stabilize the soils, help to control surface runoff, and maximize infiltration of rainfall.
- Restricting field work to dry periods minimizes the rutting and compaction caused by the high content of clay in the soils.
- 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 to pasture; suited to hayland
Commonly grown crops: Tall fescue, bahiagrass, dallisgrass, and Johnsongrass
Management concerns: Erodibility and equipment use
Management measures and considerations:
- The slope may limit equipment use in the steeper areas when hay is harvested.
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- A rotation that includes perennial grasses and legumes helps to penetrate and breakup the clayey root zone.
- 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: Toxey—high for loblolly pine; Lorman—very high for loblolly pine
Management concerns: Equipment use, seedling survival, 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 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.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control competition from undesirable plants.
- Special site preparation practices, such as harrowing and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.
- 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—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 strengthen foundations and prevents 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 erosion.

Septic tank absorption fields
Suitability: Unsuited
Management concerns: Restricted permeability and slope
Management measures and considerations:
- This map unit is very limited as a site for septic tank absorption fields because of the very slow permeability.
- 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 subclass: 6e
Prime farmland status: Not prime farmland
Hydric soil status: Toxey and Lorman—not hydric

UdC—Udorthents, dredged

Setting

Landform: Flood plains along the Alabama and Tombigbee Rivers
Landform position: Natural levees

Shape of areas: Rectangular
Size of areas: 10 to 100 acres

Composition

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

This map unit consists of earthen material that has been dredged from the Alabama and Tombigbee Rivers and pumped into holding basins formed by levees. The material is several feet thick and is typically stratified with textures ranging from clay to sand. Soil properties can vary widely within a short distance. Fragments of compacted earthy sediments, gravel, and woody debris are commonly within the profile. No typical pedon has been selected.

Soil 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: Rare or occasional
Content of organic matter in the surface layer: Low
Natural fertility: Low
Depth to bedrock: More than 60 inches

Minor Components

Dissimilar soils
- Izagora, Mooreville, Riverview, Una, and Urbo soils near the edges of mapped areas

Land Use

Dominant uses: Wildlife habitat
Other uses: Forestland

Areas of this map unit are not easily managed for crops, pasture, forestland, or wildlife habitat because of the limited size of the areas and 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 subclass: 4s
Prime farmland status: Not prime farmland
Hydric soil status: Udorthents—not hydric

UnA—Una clay, ponded

Setting

Landform: Flood plains
Landform position: Oxbows, sloughs, swales, and backswamps
Shape of areas: Oblong
Size of areas: 5 to 120 acres

Composition

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

Typical Profile

Surface layer:
0 to 5 inches—gray clay that has reddish mottles

Subsoil:
5 to 18 inches—gray clay that has reddish mottles
18 to 80 inches—gray and light gray clay that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Very slow
Available water capacity: High
Seasonal high water table: Apparent, from 2 feet above the surface to a depth of 1/2 foot from January through December
Shrink-swell potential: High
Flooding: Frequent for long periods, mainly 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 Urbo soils in the slightly higher, more convex positions

Similar soils
- Scattered areas of Una soils that have a surface layer of clay loam, loam, or sandy loam

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 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 baldcypress, green ash, and water tupelo
Management concerns: Equipment use, seedling survival, and competition from undesirable plants
Management measures and considerations:
- The best method for reforesting areas of this soil is by managing for the natural regeneration of hardwoods.
- Logging when the soil has the proper moisture content and using low-pressure ground equipment help to control rutting and the root damage caused by compaction.
- Harvesting timber during the summer or fall reduces the risk of damage from flooding.

- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the soil.
- Standard site preparation practices, such as applying herbicides and chopping, help to control competition from undesirable plants.

Wildlife habitat
Potential to support habitat for: Openland wildlife and forestland wildlife—very poor; wetland wildlife—good
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 and by creating openings in the canopy. The openings encourage the growth of seed-producing grasses and forbs.

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 subclass: 7w
Prime farmland status: Not prime farmland
Hydric soil status: Una—hydric

Ur—Urban land

Setting

Landform: Ridges, hillslopes, and terraces
Landform position: Summits, shoulder slopes, and backslopes
Shape of areas: Rectangular
Size of areas: 5 to 60 acres

Composition

Urban land: 95 percent
Dissimilar soils: 5 percent

Urban land consists mainly of areas of high-density commercial and industrial developments, mostly in the vicinity of Grove Hill, Jackson, and Thomasville. The original soils have been altered by cutting and filling, shaping and grading, and compacting or have been covered with buildings, concrete, or asphalt.

Properties and Qualities

Depth class: Variable
Drainage class: Variable
Permeability: Very slow
Available water capacity: Variable
Depth to seasonal high water table: Variable
Shrink-swell potential: Variable
Flooding: None or rare
Natural fertility: Low
Depth to bedrock: More than 80 inches

Minor Components

Dissimilar soils
- Bama, Halso, Lucedale, Luverne, and Smithdale 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, 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 subclass: 8s
Prime farmland status: Not prime farmland
Hydric soil status: Urban land—not hydric

UuB—Urbo-Mooreville-Una complex, gently undulating, frequently flooded

Setting

Landform: Flood plains
Landform position: Urbo—lower and intermediate parts of low ridges or natural levees and in shallow swales; Mooreville—high parts of low ridges and natural levees; Una—oxbows, swales, and sloughs
Shape of areas: Oblong
Size of areas: 100 to 35,000 acres

Composition

Urbo and similar soils: 55 percent
Mooreville and similar soils: 25 percent
Una and similar soils: 15 percent
Dissimilar soils: 5 percent

Typical Profiles

Urbo
Surface layer:
0 to 4 inches—dark grayish brown silty clay

Subsoil:
4 to 13 inches—brown silty clay with grayish mottles
13 to 29 inches—grayish brown and brown silty clay
29 to 60 inches—grayish brown silty clay and clay having brownish mottles
60 to 68 inches—grayish brown silty clay that has brownish mottles
68 to 80 inches—gray sandy clay loam that has brownish mottles

Mooreville
Surface layer:
0 to 5 inches—very dark grayish brown and brown clay loam

Subsoil:
5 to 20 inches—brown silty clay loam that has grayish and brownish mottles
20 to 39 inches—dark yellowish brown clay loam that has grayish and brownish mottles

39 to 69 inches—dark yellowish brown and brown loam that has grayish and brownish mottles

Substratum:
69 to 80 inches—yellowish brown sandy loam that has grayish, brownish, and reddish mottles

Una
Surface layer:
0 to 5 inches—gray clay that has reddish mottles

Subsoil:
5 to 18 inches—gray clay that has reddish mottles
18 to 80 inches—gray and light gray clay that has brownish mottles

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Urbo—somewhat poorly drained; Mooreville—moderately well drained; Una—poorly drained
Permeability: Urbo and Una—very slow; Mooreville—moderate
Available water capacity: High
Seasonal high water table: Urbo—apparent, at a depth of 1 to 2 feet from December through April; Mooreville—apparent, at a depth of 1$^1/_2$ to 3 feet from December through April; Una—apparent, from 2 feet above the surface to a depth of $^1/_2$ foot from December through July
Shrink-swell potential: Urbo and Una—high; Mooreville—moderate
Flooding: Frequent for long periods, mainly 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 clayey, moderately well drained Chrysler and somewhat poorly drained Lenoir soils on knolls or remnants of terraces
- The loamy, well drained Cahaba and moderately well drained Izagora soils on knolls or remnants of terraces
- Excessively drained, sandy soils on high parts of low ridges or natural levees
- The variable Udorthents in contained areas on natural levees

Similar soils
- Scattered areas of soils that are similar to the Mooreville soil but have a higher content of clay in the upper part of the subsoil
- The well drained Riverview soils on high parts of low ridges or natural levees

Land Use

Dominant uses: Forestland and wildlife habitat
Other uses: Cropland, 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: Equipment use, flooding, and wetness

Management measures and considerations:
- Using equipment when the soils have the proper moisture content helps to prevent the rutting and compaction of the surface caused by the high content of clay.
- Although most of the flooding occurs during the winter and spring, livestock and hay may be damaged during any time of the year.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.

Forestland

Suitability: Suited to loblolly pine and hardwoods

Productivity class: Urbo and Mooreville—very high for loblolly pine; Una—high for water tupelo and baldcypress (fig. 10)

Management concerns: Equipment use, seedling survival, 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 Urbo and Una soils.
- Restricting the use of standard wheeled and tracked equipment to dry periods minimizes rutting and compaction.
- Harvesting timber during the summer or fall reduces the risk of damage from the flooding.
- Bedding the Urbo and Una 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.

Figure 10.—An area of Urbo-Mooreville-Una complex, gently undulating, frequently flooded. The Una soil, which is ponded, is in low swales in the foreground. The Urbo and Mooreville soils are on the low ridges in the background. The cypress knees and the enlarged lower trunks of the baldcypress trees are adaptations that help the trees tolerate the excessive wetness in the Una soil.

- 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 Urbo soil to support habitat for: Openland wildlife, forestland wildlife, and wetland wildlife—fair

Potential of the Mooreville soil to support habitat for: Openland wildlife—fair; forestland wildlife—good; wetland wildlife—poor

Potential of the Una soil to support habitat for: Openland wildlife and forestland wildlife—very poor; wetland 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 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 and by creating openings in the canopy. The openings encourage the growth of seed-producing grasses and forbs.

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 subclass: Urbo and Mooreville—5w; Una—7w

Prime farmland status: Not prime farmland

Hydric soil status: Urbo, Mooreville, and Una—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.

WaB—Wadley loamy sand, 1 to 5 percent slopes

Setting

Landform: Ridges

Landform position: Summits and shoulder slopes

Shape of areas: Irregular

Size of areas: 5 to 50 acres

Composition

Wadley and similar soils: 90 percent

Dissimilar soils: 10 percent

Typical Profile

Surface layer:

0 to 10 inches—brown loamy sand

Subsurface layer:
10 to 38 inches—strong brown loamy sand
38 to 55 inches—reddish yellow loamy sand

Subsoil:
55 to 80 inches—yellowish red sandy 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
- Boykin soils that have loamy subsoil layers within a depth of 20 to 40 inches; on shoulder slopes
- The loamy Smithdale and clayey Luverne soils in saddles
- Wadley soils that have a slope of more than 5 percent

Similar soils
- Scattered areas of sandy soils that do not have a loamy subsoil within a depth of 80 inches

Land Use

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

Cropland
Suitability: Poorly suited
Commonly grown crops: Truck crops and watermelons
Management concerns: Droughtiness and nutrient leaching
Management measures and considerations:
- Conservation tillage, winter cover crops, crop residue management, and crop rotations that include grasses and legumes increase available water capacity and improve fertility.
- Using supplemental irrigation and planting crop 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.

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: 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 subclass: 3s
Prime farmland status: Not prime farmland
Hydric soil status: Wadley—not hydric

WsF—Wadley-Smithdale complex, 15 to 35 percent slopes

Setting

Landform: Hillslopes
Landform position: Wadley—nose slopes, upper parts of backslopes, and footslopes; Smithdale—shoulder slopes, backslopes, and footslopes
Shape of areas: Irregular
Size of areas: 20 to 1,500 acres

Composition

Wadley and similar soils: 60 percent
Smithdale and similar soils: 30 percent
Dissimilar soils: 10 percent

Typical Profiles

Wadley

Surface layer:
0 to 10 inches—brown loamy sand

Subsurface layer:
10 to 38 inches—strong brown loamy sand
38 to 55 inches—reddish yellow loamy sand

Subsoil:
55 to 80 inches—yellowish red sandy loam

Smithdale

Surface layer:
0 to 3 inches—brown loamy sand

Subsurface layer:
3 to 8 inches—yellowish brown loamy sand

Subsoil:
8 to 13 inches—yellowish red sandy loam
13 to 42 inches—red sandy clay loam
42 to 80 inches—red sandy loam

Soil Properties and Qualities

Depth class: Very deep
Drainage class: Wadley—somewhat excessively drained; Smithdale—well drained
Permeability: Wadley—rapid in the surface and subsurface layers and moderate in the subsoil; Smithdale—moderate
Available water capacity: Wadley—low; Smithdale—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 clayey Arundel, Luverne, and Maubila soils on the upper or lower parts of slopes
- The poorly drained Bibb and moderately well drained Iuka soils on narrow flood plains
- Boykin soils that have loamy subsoil layers within a depth of 20 to 40 inches; on shoulder slopes
- Scattered areas of gravelly Flomaton and Saffell soils
- Wadley and Smithdale soils that have a slope of less than 15 percent or more than 35 percent

Similar soils

- Scattered areas of loamy or sandy soils that have 10 to 35 percent gravel throughout the profile
- Scattered areas of sandy soils that do not have a loamy subsoil within a depth of 80 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 the steep slopes. 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, equipment use, droughtiness, and nutrient leaching
Management measures and considerations:
- This map unit is difficult to manage for pasture and hayland because of the slope.
- Using equipment that has low-pressure tires increases traction and minimizes the rutting caused by the high content of sand in the soils.
- 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 (fig. 11)
Suitability: Suited
Productivity class: Wadley—high for loblolly pine; Smithdale—very high for loblolly pine
Management concerns: Wadley—erodibility, equipment use, and seedling survival; Smithdale—erodibility and equipment use
Management measures and considerations:
- 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.

Figure 11.—A young stand of longleaf pine in an area of Wadley-Smithdale complex, 15 to 35 percent slopes. These somewhat excessively drained, sandy soils and well drained, loamy soils are suited to longleaf pine.

- 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.
- 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 Wadley soil to support habitat for: Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor

Potential of the Smithdale soil 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: 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.
- Vegetating cleared-and-graded areas as soon as possible or constructing silt fences helps to maintain soil stability and helps to keep soil on the site.

Septic tank absorption fields

Suitability: Poorly suited

Management concerns: Slope

Management measures and considerations:

- Installing the distribution lines on the contour improves the performance of 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: 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 subclass: 7e
Prime farmland status: Not prime farmland
Hydric soil status: Wadley and Smithdale—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 5 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

About 82,470 acres in the survey area, or nearly 10 percent of the total acreage, meets the soil requirements for prime farmland. Scattered areas of this land are throughout the county, but most are in the northern part or on terraces paralleling the Alabama and Tombigbee Rivers, mainly in associations 3, 5, 6, and 14, which are described under the heading "General Soil Map Units." About 5,800 acres of this prime farmland is used for crops. The crops grown on this land, mainly cotton, peanuts, corn, and soybeans, account for an estimated one-quarter of the county's total agricultural income each year.

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:

BaB Bama fine sandy loam, 2 to 5 percent slopes
BoB Brantley-Okeelala complex, 2 to 5 percent slopes

CaA	Cahaba fine sandy loam, 0 to 2 percent slopes, occasionally flooded
ChA	Chrysler loam, 0 to 2 percent slopes, rarely flooded
EsA	Escambia fine sandy loam, 0 to 2 percent slopes
HaB	Halso fine sandy loam, 2 to 5 percent slopes
HtA	Harleston loamy fine sand, 0 to 2 percent slopes
IgA	Izagora fine sandy loam, 0 to 2 percent slopes, occasionally flooded
LaA	Latonia loamy sand, 0 to 2 percent slopes, occasionally flooded
LsA	Lucedale sandy loam, 0 to 2 percent slopes
LvB	Luverne sandy loam, 2 to 5 percent slopes
MaB	Malbis fine sandy loam, 1 to 5 percent slopes
RvA	Riverview fine sandy loam, 0 to 2 percent slopes, occasionally flooded
SaA	Savannah fine sandy loam, 0 to 2 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; 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

Kenneth M. Rogers, conservation agronomist (retired), and 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 and the system of land capability classification used by the Natural Resources Conservation Service is explained.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading “Detailed Soil Map Units.” Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension System.

In recent years, the acreage of cropland in Clarke County has gradually decreased. Currently, the main cultivated crops are cotton, corn, soybeans, peanuts, and wheat. In 2001, approximately 2,100 acres was used as cropland in the county. The total acreage used for cultivated crops has been decreasing slightly for several years. The total acreage used for hay production, however, has increased in recent years. About 13,000 tons of hay was harvested from 4,400 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 was 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 Clarke County include many crops that are not commonly grown because of economic considerations. Corn, cotton, and soybeans are the main row crops. 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. Barley and triticale could also be grown. The specialty crops grown in the county include sweet corn, sweet potatoes, peas, okra, melons, and turnips. Many of the soils in the survey area, including Bama, Boykin, Cahaba, Harleston, Izagora, Latonia, Lucedale, Malbis, Riverview, Savannah, and Smithdale 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 office 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. Bama, Brantley, Luverne, Malbis, Smithdale, and Wadley 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, Halso, Lorman, Luverne, Maubila, and Suggsville soils, and on soils that have a fragipan that restricts rooting depth, such as Savannah soils. Also, loss of the surface layer can be damaging to soils that are shallow over bedrock, such as Cantuche, Prim, and Watsonia 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 soil.

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. Bama, Brantley, and Smithdale soils are examples. Sandy soils, such as Boykin and Wadley soils, are not suited to terraces 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 Bama, Brantley, and Malbis 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 soil blowing is generally 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 this hazard. 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.

Clarke 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, Lorman, Suggsville, and Toxey soils, have a slow or very slow rate of water infiltration that limits their suitability for irrigation.

In Clarke County, most of the soils that are used for crops on uplands and terraces 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. Most of the soils that are used for crops in the Blackland Prairie area have a clayey surface layer that has a medium content of organic matter. Regular additions of crop residue, manure, and other organic material can improve the structure of these soils also.

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. The soils that readily develop traffic pans include the Bama, Cahaba, Chrysler, Izagora, Lucedale, Malbis, Riverview, Savannah, and Smithdale 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 of the 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 Suggsville and Watsonia 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 Boykin, Ocilla, Pelham, and Wadley soils. Higher levels of nitrogen, applied in split applications, should be used on these soils. The Cooperative Extension System can help determine the kinds and amounts of fertilizer and lime to apply.

Wetness is a management concern in areas of Bibb, Daleville, Deerford, Jedburg, Lenoir, Mantachie, McCrory, Myatt, Pelham, Quitman, Una, and Urbo 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, improved bermudagrass, dallisgrass, Johnsongrass, and tall fescue are the main perennial grasses grown for pasture and hay in Clarke 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 Bama, Boykin, Cahaba, Lucedale, Okeelala, and Smithdale 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 proper grazing management, controlling weeds, properly applying fertilizer, 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 good, 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 table 6.

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 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.

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 this soil survey.

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

Kenneth M. Rogers, conservation agronomist (retired), and 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 Clarke County have been disturbed to some degree during construction of houses, streets, driveways, and utility services. 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, Brantley, Halso, Lorman, Luverne, Maubila, Rayburn, Suggsville, and Watsonia soils are clayey. Savannah 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 Daleville, Pelham, and Quitman 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 Daleville and Quitman soils, helps to provide a satisfactory root zone for some plants.

Some soils, such as Bibb, Iuka, Mantachie, Mooreville, Una, and Urbo 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 Boykin and Wadley 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 Clarke County. Most of the soils, with the exception of some soils in the Blackland Prairie area, are moderately acid to 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 slightly acid to 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 Clarke 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 tolerant of shade 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. The effects of 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 local office of the Cooperative Extension System, the Natural Resources Conservation Service, or from 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

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 forestland 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 (Broadfoot and Krinard, 1959; Broadfoot, 1963; Coile and Schumacher, 1953; USDA, 1976). More detailed information regarding site index is available in the “National Forestry Manual,” which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forestland Management

In tables 9a through 9d, interpretive ratings are given for various aspects of forestland management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified 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 forestland 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.

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 recreational development. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in 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.

Clarke County is dominantly a rural area that has suitable habitat for many kinds of wildlife. The county is about 91 percent forestland (Clarke County Democrat, 2001) and is interspersed with areas of cultivated crops, pasture, and hayland.

The common species of wild game found 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, 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 these forestland areas are managed primarily to provide habitat for various species of wildlife, such as the 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.

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 primarily are used for agricultural commodities, such as soybeans, corn, peanuts, grain sorghum, and cotton. The areas of pasture and hayland generally are used for perennial grasses, such as bahiagrass, bermudagrass, tall fescue, and Johnsongrass.

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. The wetlands occur mostly in areas that are adjacent to the Alabama and Tombigbee Rivers and along major streams, such as Bashi, Bassetts, Pigeon, Reedy, Satilpa, Silver, Tallahatta, and Tattiliba 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 near backwaters of the Alabama and Tombigbee Rivers.

The wildlife species in Clarke County that the Federal government has listed as threatened or endangered include the American bald eagle, the wood stork, the Gulf sturgeon, the Alabama sturgeon, the inflated heelsplitter mussel, the heavy pigtoe mussel, the eastern indigo snake, and the black pine snake.

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created or improved by planting appropriate vegetation, by maintaining the existing plant cover, or by 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, grain sorghum, wheat, oats, rye, and millet.

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 bahiagrass, Johnsongrass, lespedeza, clover, chufa, and bermudagrass.

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, goldenrod, beggarweed, croton, pokeweed, paspalums, ragweed, and partridge pea.

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, blackcherry, sweetgum, hawthorn, dogwood, hickory, persimmon, sassafras, sumac, holly, and huckleberry. Examples of fruit-producing shrubs that are suitable for planting on soils rated *good* are autumn-olive, plum, 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, 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, pondweed, 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, waterfowl feeding areas, 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, red fox, coyote, armadillo, killdeer, and hawks.

Habitat for forestland 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, woodpeckers, squirrels, gray fox, raccoon, deer, bobcat, opossum, skunk, and bear.

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, shore birds, muskrat, mink, otter, beaver, turtles, rails, and kingfisher.

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) and “Keys to Soil Taxonomy” (Soil Survey Staff, 2003) and in the “Soil Survey Manual” (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period to be considered hydric, they 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, 1998).

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 major component or components of 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, 1998).

DaA Daleville-Quitman complex, 0 to 2 percent slopes; Daleville part
FlA Fluvaquents, ponded
IBA Iuka, Bibb, and Mantachie soil, 0 to 1 percent slopes, frequently flooded; Bibb part
MdA McCrory-Deerford complex, 0 to 2 percent slopes, occasionally flooded; McCrory part
MyA Myatt fine sandy loam, 0 to 1 percent slopes, occasionally flooded
OdB Ocilla-Pelham complex, gently undulating; Pelham part
UnA Una clay, ponded
UuB Urbo-Mooreville-Una complex, gently undulating, frequently 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.

ArF	Arundel-Cantuche complex, 15 to 35 percent slopes
ArG	Arundel-Cantuche complex, 35 to 60 percent slopes
BoD	Brantley-Okeelala complex, 5 to 15 percent slopes
BoG	Brantley-Okeelala complex, 35 to 60 percent slopes
ChA	Chrysler loam, 0 to 2 percent slopes, rarely flooded
EsA	Escambia fine sandy loam, 0 to 2 percent slopes
FaE	Flomaton-Smithdale-Wadley complex, 10 to 25 percent slopes
HaD2	Halso fine sandy loam, 5 to 15 percent slopes, eroded
IgA	Izagora fine sandy loam, 0 to 2 percent slopes, occasionally flooded
IjB	Izagora-Jedburg complex, gently undulating, occasionally flooded
JdA	Jedburg loam, 0 to 2 percent slopes, occasionally flooded
LeA	Lenoir silt loam, 0 to 2 percent slopes, occasionally flooded
LmD	Lorman fine sandy loam, 5 to 15 percent slopes
LoF	Lorman-Toxey-Okeelala complex, 15 to 45 percent slopes
LvD	Luverne sandy loam, 5 to 15 percent slopes
LvF	Luverne sandy loam, 15 to 35 percent slopes
MbF	Maubila-Wadley-Smithdale complex, 8 to 30 percent slopes
OcA	Ochlockonee sandy loam, 0 to 2 percent slopes, frequently flooded
OkF	Okeelala-Brantley complex, 15 to 35 percent slopes
Pg	Pits
PrG	Prim-Eutrudepts complex, 35 to 60 percent slopes, very stony
PwF	Prim-Suggsville-Watsonia complex, 10 to 40 percent slopes
RaD	Rayburn silt loam, 5 to 15 percent slopes
RvA	Riverview fine sandy loam, 0 to 2 percent slopes, occasionally flooded
SbD	Smithdale-Boykin complex, 5 to 15 percent slopes
SsF	Smithdale-Saffell complex, 15 to 45 percent slopes
ToD	Toxey-Lorman complex, 5 to 15 percent slopes
UdC	Udorthents, dredged
WsF	Wadley-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, topsoil, reclamation material, and roadfill. Normal compaction, minor processing, and other standard construction practices are assumed.

Sand and *gravel* 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 sand or gravel 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 sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good, fair,* or *poor* as potential sources of sand and gravel. 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 topsoil, reclamation material, and roadfill. 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.

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.

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).

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 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).

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 Index Properties

Table 16 gives the engineering classifications and the range of index 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. The estimates of particle-size distribution are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is generally omitted in the table.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

Physical Soil Properties

Table 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.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In table 17, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In table 17, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In 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 refers to the ability of a soil to transmit water or air. The term "permeability," as used in soil surveys, indicates saturated hydraulic conductivity (K_{sat}). The estimates in the table indicate the rate of water movement, in micrometers per second (µm/sec), when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability 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 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.

Sodium adsorption ratio (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced permeability and aeration, and a general degradation of soil structure.

Water Features

Table 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 of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. 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. Unless otherwise indicated, 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, and the National Soil Survey Laboratory, Natural Resources Conservation Service, Lincoln, Nebraska.

Most determinations, except those for grain-size analysis, 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, 1996).

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.
Extractable acidity—method of Hajek, Adams, and Cope.
Cation-exchange capacity—sum of cations (5A3a).
Effective cation-exchange capacity—sum of extractable cations plus aluminum (5A3b).
Base saturation—ammonium acetate, pH 7.0 (5C1).
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-loamy, siliceous, subactive, thermic Typic Hapludults.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. An example is the Smithdale series, which is a member of the fine-loamy, siliceous, subactive, thermic Typic Hapludults.

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). 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.

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 and on backslopes and footslopes
Slope: 2 to 60 percent
Taxonomic class: Fine, smectitic, thermic Typic Hapludults

Commonly Associated Soils

Cantuche, Luverne, Rayburn, Smithdale, and Wadley soils are commonly associated with the Arundel series.

- The shallow Cantuche soils are in positions similar to those of the Arundel soils.
- The very deep, clayey Luverne and loamy Smithdale soils are commonly on ridges and side slopes at higher elevations than the Arundel soils.
- The deep Rayburn soils are on footslopes and backslopes at lower elevations than the Arundel soils.
- The Wadley soils are on footslopes and shoulder slopes and have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Arundel loam, in an area of Arundel-Cantuche complex, 15 to 35 percent slopes; about 2 miles south of Tallahatta Springs; 2,640 feet north and 2,400 feet east of the southwest corner of sec. 1, T. 10 N., R. 2 E.; USGS Fulton West topographic quadrangle; lat. 31 degrees 52 minutes 0 seconds N. and long. 87 degrees 49 minutes 41 seconds W.

A—0 to 5 inches; very dark gray (10YR 3/1) loam; weak fine granular structure; very friable; common fine and medium roots; about 5 percent claystone pebbles; very strongly acid; clear smooth boundary.

Bt1—5 to 18 inches; strong brown (7.5YR 5/6) clay; moderate medium subangular blocky structure; firm; few fine and medium roots; few faint clay films on faces of peds; about 8 percent claystone pebbles; extremely acid; gradual wavy boundary.

Bt2—18 to 32 inches; strong brown (7.5YR 5/6) clay; moderate medium subangular blocky structure; firm; few fine and medium roots; few faint clay films on faces of peds; about 10 percent claystone pebbles; common fine and medium distinct yellowish red (5YR 5/6) masses of iron accumulation; extremely acid; clear wavy boundary.

C—32 to 39 inches; yellowish brown (10YR 5/6) very cobbly clay loam; massive; firm;

about 55 percent claystone cobbles and channers; extremely acid; gradual irregular boundary.

Cr—39 to 80 inches; pale olive (5Y 6/3) claystone; massive; extremely firm; common distinct yellowish brown (10YR 5/8) masses of iron accumulation on 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: Less than 15 percent pebbles and cobbles in the A and B horizons and 15 to 60 percent pebbles and cobbles in the C horizon
Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 1 to 3

Bt horizon:
Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 4 to 6
Texture—clay or silty clay
Redoximorphic features (where present)—iron depletions in shades of brown and masses of iron accumulation in shades of red, yellow, or brown

C horizon (where present):
Color—hue of 7.5YR to 5Y, value of 5 or 6, and chroma of 3 to 6
Texture—very cobbly clay loam, cobbly clay, very gravelly silty clay, or gravelly silty clay loam

Cr horizon:
Type of bedrock—weathered claystone or siltstone; massive or platy rock structure
Other—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

Bama Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy alluvial sediments
Landform: High stream terraces
Landform position: Summits, shoulder slopes, and side slopes
Slope: 2 to 5 percent
Taxonomic class: Fine-loamy, siliceous, subactive, thermic Typic Paleudults

Commonly Associated Soils

Boykin, Lucedale, Malbis, and Smithdale soils are commonly associated with the Bama series.

- The Boykin and Smithdale soils are on summits of narrow ridges at the higher elevations or on side slopes at the lower elevations. Boykin soils have a thick, sandy epipedon. Smithdale soils have a significant decrease in content of clay within a depth of 60 inches.
- The Lucedale soils are in positions similar to those of the Bama soils but have dark red colors throughout the argillic horizon.

- The Malbis soils are in positions similar to those of the Bama soils but have more than 5 percent plinthite in the lower part of the subsoil.

Typical Pedon

Typical pedon of Bama fine sandy loam, 2 to 5 percent slopes; 0.75 mile southeast of Vashti; 2,500 feet north and 700 feet west of the southeast corner of sec. 2, T. 8 N., R. 4 E.; USGS Whatley topographic quadrangle; lat. 31 degrees 41 minutes 35 seconds N. and long. 87 degrees 38 minutes 8 seconds W.

Ap—0 to 7 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak fine granular structure; very friable; few fine and medium roots; very strongly acid; clear smooth boundary.

BE—7 to 12 inches; yellowish red (5YR 4/6) sandy clay loam; weak medium subangular blocky structure; friable; few fine and medium roots; common streaks of dark grayish brown (10YR 4/2) fine sandy loam; very strongly acid; clear wavy boundary.

Bt1—12 to 24 inches; yellowish red (5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; few faint clay films on faces of peds; few fine ironstone concretions; very strongly acid; gradual wavy boundary.

Bt2—24 to 63 inches; red (2.5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; few faint clay films on faces of peds; few fine ironstone concretions; very strongly acid; gradual wavy boundary.

Bt3—63 to 87 inches; dark red (2.5YR 3/6) sandy clay loam; weak coarse subangular blocky structure; friable; few faint clay films on faces of peds; about 3 percent fine, rounded quartzite pebbles; few fine ironstone concretions; 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 that have been limed

Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4

BE horizon (where present):
Color—hue of 5YR or 7.5YR, value of 4 or 5, and chroma of 4 to 6
Texture—sandy loam, fine sandy loam, loam, or sandy clay loam

Bt horizon (upper part):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8
Texture—sandy clay loam, loam, or clay loam

Bt horizon (lower part):
Color—hue of 2.5YR or 5YR, value of 3 to 5, and chroma of 4 to 6
Texture—sandy clay loam, loam, or clay loam
Relic redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

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 or concave slopes in backswamps
Slope: 0 to 1 percent
Taxonomic class: Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents

Commonly Associated Soils

Iuka, Mantachie, and Ochlockonee soils are commonly associated with the Bibb series.

- The moderately well drained Iuka and well drained Ochlockonee soils are on high parts of natural levees.
- The somewhat poorly drained Mantachie soils are in slightly higher, more convex positions than those of the Bibb soils.

Typical Pedon

Typical pedon of Bibb sandy loam, in an area of Iuka, Bibb, and Mantachie soils, 0 to 1 percent slopes, frequently flooded; about 1 mile northwest of Zimco; 150 feet south and 600 feet west of the northeast corner of sec. 32, T. 9 N., R. 2 E.; USGS Winn topographic quadrangle; lat. 31 degrees 42 minutes 47 seconds N. and long. 87 degrees 53 minutes 22 seconds W.

A—0 to 7 inches; dark gray (10YR 4/1) sandy loam; weak fine granular structure; very friable; many fine and medium roots; few fine faint brown (10YR 4/3) masses of iron accumulation; very strongly acid; clear wavy boundary.
Cg1—7 to 23 inches; dark gray (5Y 4/1) sandy loam; massive; very friable; few fine and medium roots; few fine prominent yellowish brown (10YR 5/4) and strong brown (7.5YR 5/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.
Cg2—23 to 72 inches; dark gray (5Y 4/1) sandy loam; massive; very friable; few thin strata of dark yellowish brown (10YR 4/4) loam; very strongly acid.

Range in Characteristics

Thickness of 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 2 to 4, and chroma of 1 to 3
Redoximorphic features (where present)—masses of iron accumulation in shades of red or brown

Cg horizon:
Color—hue of 10YR to 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 red
Texture—loamy sand, sandy loam, or loam; thin strata of finer or coarser textured material in most pedons
Redoximorphic features—masses of iron accumulation in shades of brown, red, or yellow

Boykin 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 hillslopes
Landform position: Summits of narrow ridges; shoulder slopes; and backslopes
Slope: 1 to 15 percent
Taxonomic class: Loamy, siliceous, active, thermic Arenic Paleudults (fig. 12)

Figure 12.—A profile of a Boykin soil. Boykin soils are well drained and are on summits and side slopes in the uplands. They have an argillic horizon of reddish sandy loam and sandy clay loam underlying a thick epipedon of loamy sand.

Commonly Associated Soils

Bama, Luverne, Smithdale, and Wadley soils are commonly associated with the Boykin series.

- The Bama soils are on summits of broad ridges and do not have a thick, sandy epipedon.
- The clayey Luverne soils are commonly on summits of narrow ridges and on side slopes at lower elevations than the Boykin soils.
- The Smithdale and Wadley soils are in positions similar to those of the Boykin soils. The Smithdale soils do not have a thick, sandy epipedon. The Wadley soils have a sandy epipedon that ranges from 40 to 80 inches in thickness.

Typical Pedon

Typical pedon of Boykin loamy sand, in an area of Smithdale-Boykin complex, 5 to 15 percent slopes; about 5.5 miles north of Gosport; 1,400 feet north and 1,200 feet east of the southwest corner of sec. 8, T. 8 N., R. 5 E.; USGS Chance topographic quadrangle; lat. 31 degrees 40 minutes 18 seconds N. and long. 87 degrees 35 minutes 50 seconds W.

A—0 to 5 inches; dark grayish brown (10YR 4/2) loamy sand; weak fine granular structure; very friable; many fine and medium roots; moderately acid; clear smooth boundary.

E1—5 to 14 inches; 60 percent dark grayish brown (10YR 4/2) and 40 percent yellowish brown (10YR 5/4) loamy sand; weak coarse subangular blocky structure; very friable; common fine and medium roots; about 2 percent fine, rounded quartzite pebbles; moderately acid; gradual wavy boundary.

E2—14 to 26 inches; light yellowish brown (10YR 6/4) loamy sand; weak coarse subangular blocky structure; very friable; common fine roots; few thin streaks of uncoated sand; strongly acid; clear smooth boundary.

Bt1—26 to 38 inches; yellowish red (5YR 4/6) sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; few faint clay films on faces of peds; few medium distinct brownish yellow (10YR 6/6) masses of iron accumulation; strongly acid; clear wavy boundary.

Bt2—38 to 80 inches; red (2.5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; friable; few faint clay films on faces of peds; few fine soft black masses of iron and manganese oxides; few fine, rounded ironstone concretions; 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 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 4 to 6, and chroma of 2 to 4
Texture—loamy sand or sand

Bt horizon:
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 6 to 8
Texture—sandy loam or sandy clay loam
Relic redoximorphic features (where present)—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of red or brown

Brantley Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Parent material: Clayey and loamy marine sediments
Landform: Ridges and hillslopes
Landform position: Summits, benches, and side slopes
Slope: 2 to 60 percent
Taxonomic class: Fine, mixed, active, thermic Ultic Hapludalfs (fig. 13)

Commonly Associated Soils

Lorman, Prim, Okeelala, Suggsville, and Toxey soils are commonly associated with the Brantley series.

- The moderately well drained Lorman and Toxey soils are in positions similar to those of the Brantley soils but have smectitic mineralogy.
- The shallow Prim and deep Suggsville soils are on ridges at the higher elevations.
- The loamy Okeelala soils are in positions similar to those of the Brantley soils.

Typical Pedon

Typical pedon of Brantley fine sandy loam, in an area of Okeelala-Brantley complex, 15 to 35 percent slopes; about 2 miles south of Dickinson; 2,300 feet north and 2,600 feet east of the southwest corner of sec. 19, T. 9 N., R. 4 E.; USGS Whatley topographic quadrangle; lat. 31 degrees 42 minutes 39 seconds N. and long. 87 degrees 42 minutes 34 seconds W.

Ap1—0 to 3 inches; dark brown (10YR 3/3) fine sandy loam; weak fine granular structure; very friable; many very fine, common fine and medium, and few coarse roots; strongly acid; clear smooth boundary.

Ap2—3 to 11 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak coarse subangular blocky structure; very friable; many very fine and fine and common medium and coarse roots; very strongly acid; abrupt smooth boundary.

Bt1—11 to 21 inches; red (2.5YR 4/6) clay; weak coarse prisms parting to strong medium angular blocky structure; firm; common very fine and few fine and medium roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—21 to 32 inches; red (2.5YR 4/8) clay loam; moderate medium subangular blocky structure; firm; few very fine and fine roots; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt3—32 to 43 inches; red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; firm; few very fine and fine roots; common faint clay films on faces of peds; few fine distinct light yellowish brown (10YR 6/4) iron depletions; very strongly acid; clear wavy boundary.

BC—43 to 56 inches; 40 percent yellowish red (5YR 5/8), 35 percent red (2.5YR 4/6), and 25 percent light yellowish brown (10YR 6/4) loam; weak coarse subangular blocky structure; friable; few very fine and fine roots; few faint clay films on faces of peds; areas of light yellowish brown are iron depletions; very strongly acid; clear wavy boundary.

C1—56 to 68 inches; reddish brown (5YR 5/4) loam; massive; friable; few fine roots; common medium prominent pale yellow (2.5Y 7/4) iron depletions; common medium prominent red (2.5YR 4/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

C2—68 to 80 inches; 55 percent yellowish red (5YR 5/6) and 45 percent pale yellow (2.5Y 7/4) silt loam; massive; thinly bedded; friable; common medium prominent

Figure 13.—A profile of a Brantley soil. Brantley soils are well drained and are on summits and side slopes. They have an argillic horizon of reddish clay and clay loam and have a reddish and yellowish, loamy substratum.

red (2.5YR 4/6) masses of iron accumulation; areas of pale yellow are iron depletions; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Bt horizon (upper part):
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8
Texture—clay loam, sandy clay, or clay

Bt horizon (lower part):
Color—hue of 2.5YR to 10YR, 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, clay loam, sandy clay loam, or 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

BC horizon (where present):
Color—commonly no dominant matrix color and multicolored in shades of yellow, red, and brown; or has hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 4 to 8
Texture—clay loam, sandy clay loam, or 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—commonly no dominant matrix color and multicolored in shades of yellow, red, and brown; or has hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 8
Texture—loam, silt loam, sandy loam, or sandy clay loam; thin strata of finer or coarser textured material in many pedons
Redoximorphic features—iron depletions in shades of gray, yellow, or brown and masses of iron accumulation in shades of brown, yellow, or red

Cahaba Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy and sandy alluvial sediments
Landform: Low stream terraces
Landform position: Convex slopes on summits
Slope: 0 to 2 percent
Taxonomic class: Fine-loamy, siliceous, semiactive, thermic Typic Hapludults

Commonly Associated Soils

Chrysler, Izagora, Latonia, Lenoir, Una, and Urbo soils are commonly associated with the Cahaba series.

- The clayey Chrysler soils are in positions similar to those of the Cahaba soils but are at higher elevations.

- The moderately well drained Izagora soils are in slightly lower, less convex positions than those of the Cahaba soils.
- The Latonia soils are in positions similar to those of the Cahaba soils but are coarse-loamy.
- The clayey, somewhat poorly drained Lenoir soils are in flat or slightly concave positions that are lower than those of the Cahaba soils.
- The poorly drained Una and somewhat poorly drained Urbo soils are in low positions on flood plains.

Typical Pedon

Typical pedon of Cahaba fine sandy loam, 0 to 2 percent slopes, occasionally flooded; about 0.75 mile east of Chance; 2,500 feet south and 1,000 feet west of the northeast corner of sec. 13, T. 9 N., R. 5 E.; USGS Chance topographic quadrangle; lat. 31 degrees 44 minutes 55 seconds N. and long. 87 degrees 31 minutes 12 seconds W.

Ap—0 to 8 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine granular structure; very friable; many very fine and fine and common medium roots; strongly acid; clear wavy boundary.

Bt1—8 to 17 inches; red (2.5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; friable; common very fine and few fine roots; common thin streaks of brown (10YR 4/3) fine sandy loam; common faint clay films on faces of peds; strongly acid; gradual wavy boundary.

Bt2—17 to 51 inches; red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; firm; few very fine and fine roots; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt3—51 to 55 inches; red (2.5YR 4/8) sandy clay loam; weak coarse subangular blocky structure; friable; few very fine roots; few faint clay films on faces of peds; very strongly acid; clear wavy boundary.

C—55 to 72 inches; yellowish red (5YR 4/6) sandy loam; massive; thinly bedded; very friable; very strongly acid.

Range in Characteristics

Thickness of the solum: 35 to 60 inches
Reaction: Very strongly acid to moderately acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, 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 loam, sandy clay loam, or 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—fine sandy loam or sandy loam
Relic redoximorphic features (where present)—iron depletions in shades of brown and masses of iron accumulation in shades of red, brown, or yellow

C horizon:
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8
Texture—loamy sand, sandy loam, or fine sandy loam; thin strata of finer or coarser textured material in most pedons
Relic redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

Cantuche Series

Depth class: Shallow
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy residuum weathered from siltstone or claystone
Landform: Ridges, benches, knolls, and hillslopes
Landform position: Summits of narrow ridges, shoulder slopes, and the upper parts of side slopes
Slope: 2 to 60 percent
Taxonomic class: Loamy-skeletal, mixed, active, acid, thermic, shallow Typic Udorthents

Commonly Associated Soils

Arundel, Luverne, Rayburn, and Smithdale soils are commonly associated with the Cantuche series.

- The moderately deep, clayey Arundel soils are in positions similar to those of the Cantuche soils.
- The very deep Luverne and Smithdale soils are commonly on ridges and side slopes at higher elevations than the Cantuche soils.
- The deep, clayey Rayburn soils are on footslopes and side slopes at the lower elevations.

Typical Pedon

Typical pedon of Cantuche very channery loam, in an area of Arundel-Cantuche complex, 2 to 10 percent slopes; about 2 miles south of Tallahatta Springs; 200 feet south and 900 feet west of the northeast corner of sec. 2, T. 10 N., R. 2 E.; USGS Fulton West topographic quadrangle; lat. 31 degrees 52 minutes 24 seconds N. and long. 87 degrees 50 minutes 18 seconds W.

A1—0 to 4 inches; very dark gray (10YR 3/1) very channery loam; weak fine granular structure; very friable; common fine and medium roots; about 45 percent claystone channers; extremely acid; clear smooth boundary.

A2—4 to 10 inches; grayish brown (10YR 4/2) extremely channery loam; moderate fine and medium granular structure; very friable; common fine and medium roots; few fine fragments of charcoal; about 70 percent claystone channers; very strongly acid; abrupt wavy boundary.

Cr—10 to 80 inches; grayish brown (10YR 4/2) and light yellowish brown (10YR 6/4) claystone; massive; extremely firm; common fine roots in fractures, which are more than 12 inches apart; very strongly acid.

Range in Characteristics

Depth to bedrock: 10 to 20 inches
Content and size of rock fragments: 35 to 80 percent channers, flagstones, and angular cobbles of siltstone or claystone
Reaction: Extremely acid to strongly acid throughout the profile

A horizon:
Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 or 2 in the upper part; hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 or 3 in the lower part
Texture—very channery or extremely channery loam, silt loam, or sandy loam

C horizon (where present):
Color—hue of 10YR to 5Y, value of 5 or 6, and chroma of 3 to 6
Texture—very channery or extremely channery sandy loam, loam, or silt loam

Cr horizon:

Type of bedrock—level bedded, weathered claystone or siltstone; massive or platy rock structure.

Other—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

Chrysler Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Slow
Parent material: Clayey alluvial sediments
Landform: Low stream terraces
Landform position: Convex slopes on summits
Slope: 0 to 2 percent
Taxonomic class: Fine, mixed, semiactive, thermic Aquic Paleudults

Commonly Associated Soils

Cahaba, Izagora, Latonia, Lenoir, Una, and Urbo soils are commonly associated with the Chrysler series.

- The loamy Cahaba, Izagora, and Latonia soils are in positions similar to those of the Chrysler soils on terraces at lower elevations than the Chrysler soils.
- The somewhat poorly drained Lenoir soils are in lower, more concave positions than those of the Chrysler soils.
- The poorly drained Una and somewhat poorly drained Urbo soils are in low positions on flood plains.

Typical Pedon

Typical pedon of Chrysler loam, 0 to 2 percent slopes, rarely flooded; about 2.5 miles southwest of Carlton; 2,350 feet north and 1,400 feet west of the southeast corner of sec. 15, T. 4 N., R. 2 E.; USGS Carlton topographic quadrangle; lat. 31 degrees 18 minutes 46 seconds N. and long. 87 degrees 52 minutes 0 seconds W.

Ap1—0 to 3 inches; brown (10YR 4/3) loam; weak fine granular structure; very friable; many fine and medium roots; very strongly acid; clear smooth boundary.

Ap2—3 to 7 inches; dark yellowish brown (10YR 4/4) loam; weak medium granular structure; friable; many fine and medium roots; very strongly acid; clear wavy boundary.

Bt1—7 to 17 inches; yellowish red (5YR 4/8) clay loam; moderate medium subangular blocky structure; friable; many fine roots; common faint clay films on faces of peds; very strongly acid; clear wavy boundary.

Bt2—17 to 23 inches; red (2.5YR 4/6) clay; strong medium subangular blocky structure; firm; common fine roots; few faint clay films on faces of peds; common fine prominent light yellowish brown (10YR 6/4) and light gray (10YR 6/1) iron depletions; very strongly acid; gradual wavy boundary.

Bt3—23 to 29 inches; red (2.5YR 5/6) clay; strong medium subangular blocky structure; firm; few faint clay films on faces of peds; common medium prominent light gray (10YR 6/1) and light yellowish brown (10YR 6/4) iron depletions; common medium distinct red (2.5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bt4—29 to 47 inches; red (2.5YR 4/6) clay; strong medium subangular blocky structure; firm; few faint clay films on faces of peds; common medium prominent light gray (10YR 6/1) iron depletions; very strongly acid; gradual wavy boundary.

Bt5—47 to 60 inches; 60 percent red (2.5YR 4/8) and 40 percent light gray (10YR 7/2) clay; moderate medium subangular blocky structure; firm; few faint clay films on faces of peds; areas of light gray are iron depletions; very strongly acid; gradual wavy boundary.

Bt6—60 to 80 inches; 70 percent red (2.5YR 4/6) and 30 percent light gray (10YR 7/2) clay; weak coarse subangular blocky structure; firm; few faint clay films on faces of peds; areas of light gray are iron depletions; 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 that have been limed

A or Ap horizon:

Color—hue of 10YR, value of 2 to 4, and chroma of 1 to 4

Bt horizon (upper part):

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—clay loam, clay, or silty clay

Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

Bt horizon (lower part):

Color—commonly no dominant matrix color and multicolored in shades of red, brown, gray, and yellow; or has hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 3 to 8

Texture—clay or silty clay

Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

Daleville Series

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Slow
Parent material: Loamy alluvial sediments
Landform: Stream terraces
Landform position: Flat and slightly concave slopes on summits
Slope: 0 to 2 percent
Taxonomic class: Fine-loamy, siliceous, active, thermic Typic Paleaquults

Commonly Associated Soils

Quitman and Savannah soils are commonly associated with the Daleville series.

- The somewhat poorly drained Quitman soils are in slightly higher, more convex positions than those of the Daleville soils.
- The moderately well drained Savannah soils are in higher, more convex positions than those of the Daleville soils and have a fragipan.

Typical Pedon

Typical pedon of Daleville loam, in an area of Daleville-Quitman complex, 0 to 2 percent slopes; about 4 miles west of Bashi; 800 feet south and 2,550 feet east of the northwest corner of sec. 36, T. 12 N., R. 1 E.; USGS Morvin topographic quadrangle; lat. 31 degrees 57 minutes 57 seconds N. and long. 87 degrees 55 minutes 48 seconds W.

Ap—0 to 2 inches; dark grayish brown (10YR 4/2) loam; moderate fine and medium subangular blocky structure; very friable; many fine, medium, and coarse roots; common fine prominent dark yellowish brown (10YR 3/6) masses of iron accumulation lining root channels and pores; very strongly acid; clear smooth boundary.

Eg1—2 to 8 inches; grayish brown (10YR 5/2) loam; weak medium subangular blocky structure; friable; common fine and medium roots; common medium prominent strong brown (7.5YR 4/6) masses of iron accumulation; very strongly acid; clear smooth boundary.

Eg2—8 to 14 inches; grayish brown (2.5Y 5/2) loam; weak medium subangular blocky structure; friable; common fine and medium roots; common fine and medium black masses of iron and manganese oxides; many medium and coarse prominent dark yellowish brown (10YR 4/6) and strong brown (7.5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg1—14 to 26 inches; dark grayish brown (2.5Y 4/2) loam; weak medium prisms parting to moderate coarse subangular blocky structure; firm; few fine and medium roots; few faint clay films on faces of peds; thin coatings of light gray (10YR 7/1) sand and silt on faces of peds; few fine and medium concretions of iron and manganese oxides; many medium and coarse prominent dark yellowish brown (10YR 4/4) and strong brown (7.5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg2—26 to 36 inches; gray (2.5Y 5/1) clay loam; moderate coarse prisms parting to strong coarse subangular blocky structure; firm; few fine and medium roots; few faint clay films on faces of peds; thin coatings of light gray (10YR 7/1) sand on faces of peds; many medium and coarse prominent yellowish brown (10YR 5/6) and strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btg3—36 to 62 inches; light gray (2.5Y 7/1) clay loam; moderate coarse subangular blocky structure; firm; few fine roots; few faint clay films on faces of peds; common medium prominent brownish yellow (10YR 6/8) masses of iron accumulation; strongly acid; clear wavy boundary.

Btg4—62 to 78 inches; light brownish gray (2.5Y 6/2) clay loam; moderate coarse subangular blocky structure; firm; few faint clay films on faces of peds; common medium prominent yellowish brown (10YR 5/8) and strong brown (7.5YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

BC—78 to 84 inches; 40 percent light yellowish brown (2.5Y 6/3), 30 percent brownish yellow (10YR 6/8), and 30 percent light brownish gray (2.5Y 6/2) sandy clay loam; weak coarse subangular blocky structure; firm; areas of brownish yellow are masses of iron accumulation; areas of light yellowish brown and light brownish gray are iron depletions; 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 that have been limed

A or Ap horizon:

Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 to 4

Eg horizon:

Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 1 or 2

Texture—loam, fine sandy loam, or very fine sandy loam

Redoximorphic features (where present)—masses of iron accumulation in shades of brown or yellow

Btg horizon (upper part):
Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 1 or 2
Texture—loam or clay loam
Redoximorphic features—clay depletions in shades of gray and masses of iron accumulation in shades of red, brown, or yellow

Btg horizon (lower 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—loam, clay loam, or sandy clay loam
Redoximorphic features—clay depletions in shades of gray and masses of iron accumulation in shades of red, brown, or yellow

BC 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 gray, brown, and yellow
Texture—loam, clay loam, or sandy clay loam
Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

Deerford Series

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Slow
Parent material: Loamy sediments that contain appreciable amounts of exchangeable sodium
Landform: Low stream terraces
Landform position: Slightly convex slopes
Slope: 0 to 2 percent
Taxonomic class: Fine-loamy, mixed, active, thermic Albic Glossic Natraqualfs

Commonly Associated Soils

Izagora, Jedburg, and McCrory soils are commonly associated with the Deerford series.

- The moderately well drained Izagora and somewhat poorly drained Jedburg soils are in slightly higher positions than those of the Deerford soils.
- The poorly drained McCrory soils are in slightly lower, more concave positions than those of the Deerford soils.

Typical Pedon

Typical pedon of Deerford loam, in an area of McCrory-Deerford complex, 0 to 2 percent slopes, occasionally flooded; in Choctaw County, Alabama; about 3.25 miles southwest of Jachin; 2,600 feet south and 100 feet west of the northeast corner of sec. 17, T. 14 N., R. 2 W.; USGS Jachin topographic quadrangle; lat. 32 degrees 11 minutes 6 seconds N. and long. 88 degrees 12 minutes 19 seconds W.

A—0 to 3 inches; very dark grayish brown (10YR 3/2) loam; weak fine granular structure; friable; many fine and medium roots; extremely acid; clear smooth boundary.

E—3 to 7 inches; grayish brown (10YR 5/2) very fine sandy loam; weak coarse subangular blocky structure; very friable; common fine and medium roots; common fine and medium faint pale brown (10YR 6/3) masses of iron accumulation; strongly acid; clear wavy boundary.

E/B—7 to 10 inches; 60 percent light brownish gray (10YR 6/2) very fine sandy loam (E); weak coarse subangular blocky structure; very friable; 40 percent pale brown (10YR 6/3) very fine sandy loam (B); weak medium subangular blocky structure; very friable; common fine roots; common fine faint light yellowish brown (10YR 6/4) masses of iron accumulation; strongly acid; abrupt wavy boundary.

Btn1—10 to 20 inches; light olive brown (2.5Y 5/6) sandy clay loam; strong coarse columnar structure; firm; common fine and very fine roots; continuous faint clay films on vertical faces of peds; thin seams of light yellowish brown (10YR 6/4) very fine sandy loam between columns; few fine soft black masses of iron and manganese oxides; many coarse distinct light gray (10YR 6/1) iron depletions; common medium distinct yellowish brown (10YR 5/8) masses of iron accumulation; slightly acid; clear wavy boundary.

Btn2—20 to 27 inches; light olive brown (2.5Y 5/3) sandy clay loam; moderate coarse prisms parting to moderate medium subangular blocky structure; firm; few fine roots; continuous faint clay films on vertical faces of peds; thin seams of light gray (10YR 7/2) very fine sandy loam between prisms; few fine soft black masses of iron and manganese oxides; many fine and medium distinct light brownish gray (2.5Y 6/2) iron depletions; common fine distinct olive yellow (2.5Y 6/6) masses of iron accumulation; slightly alkaline; clear wavy boundary.

Btn3—27 to 35 inches; light olive brown (2.5Y 5/3) clay loam; moderate coarse prisms parting to moderate medium subangular blocky structure; firm; continuous faint clay films on vertical faces of peds; thin seams of light gray (10YR 7/2) very fine sandy loam between prisms; few fine soft black masses of iron and manganese oxides; many medium and coarse faint light brownish gray (2.5Y 6/2) iron depletions; common medium prominent yellowish red (5YR 5/6) and strong brown (7.5YR 5/6) masses of iron accumulation; moderately alkaline; clear wavy boundary.

Btng—35 to 49 inches; light brownish gray (2.5Y 6/2) loam; weak coarse prisms parting to moderate medium subangular blocky structure; firm; continuous faint clay films on vertical faces of peds; many medium distinct light olive brown (2.5Y 5/4) and olive yellow (2.5Y 6/6) masses of iron accumulation; moderately alkaline; clear wavy boundary.

BC—49 to 61 inches; light brownish gray (2.5Y 6/2) very fine sandy loam; weak coarse subangular blocky structure; friable; common fine faint light yellowish brown (2.5Y 6/3) and common medium distinct light olive brown (2.5Y 5/6) masses of iron accumulation; moderately alkaline; clear wavy boundary.

C—61 to 80 inches; light gray (2.5Y 7/1) very fine sandy loam; massive; very friable; common fine and medium distinct light yellowish brown (2.5Y 6/4) and dark yellowish brown (10YR 4/6) masses of iron accumulation; moderately alkaline.

Range in Characteristics

Thickness of the solum: More than 40 inches

A horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3
Reaction—extremely acid to strongly acid

E horizon and E part of E/B horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 4
Texture—very fine sandy loam or fine sandy loam
Redoximorphic features (where present)—masses of iron accumulation in shades of brown, yellow, or red
Reaction—very strongly acid or strongly acid

Btn horizon and B part of E/B horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 6

Texture—commonly loam, sandy clay loam, or clay loam; thin subhorizons of very fine sandy loam or fine sandy loam in some pedons
Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red
Reaction—strongly acid to slightly acid in the upper part and neutral to moderately alkaline in the lower part

Btng horizon:
Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 1 or 2
Texture—loam, sandy clay loam, or clay loam
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red
Reaction—slightly acid to moderately alkaline

BC and C horizons:
Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 1 or 2
Texture—very fine sandy loam, loam, or sandy clay loam
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red
Reaction—neutral to moderately alkaline

The Deerford series is classified as fine-silty, mixed, superactive, thermic Albic Glossic Natraqualfs. The Deerford soils in Clarke County, however, are taxadjuncts to the Deerford series because the percent of exchangeable sodium in the upper part of the argillic horizon and the content of sand coarser than very fine sand in the particle-size control section are higher than is defined as the range of the official series. These differences, however, do not significantly affect the use, management, or interpretations of the soils. In this survey area, the Deerford soils are fine-loamy, mixed, active, thermic Albic Glossic Natraqualfs.

Escambia Series

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Slow
Parent material: Loamy alluvial sediments
Landform: Stream terraces
Landform position: Flat and slightly convex slopes on summits
Slope: 0 to 2 percent
Taxonomic class: Coarse-loamy, siliceous, semiactive, thermic Plinthaquic Paleudults

Commonly Associated Soils

Harleston and Malbis soils are commonly associated with the Escambia series.

- The moderately well drained Harleston soils are in slightly higher, more convex positions than those of the Escambia soils.
- The well drained Malbis soils are in higher, more convex positions than those of the Escambia soils and are fine-loamy.

Typical Pedon

Typical pedon of Escambia fine sandy loam, 0 to 2 percent slopes; about 3.5 miles north of Chance; 670 feet north and 600 feet west of the southeast corner of sec. 25, T. 10 N., R. 5 E.; USGS Lower Peach Tree topographic quadrangle; lat. 31 degrees 48 minutes 7 seconds N. and long. 87 degrees 31 minutes 10 seconds W.

A1—0 to 3 inches; dark gray (10YR 4/1) fine sandy loam; weak fine granular structure; very friable; many fine and medium roots; strongly acid; clear wavy boundary.

A2—3 to 7 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak medium subangular blocky structure; very friable; common fine and medium roots; common medium distinct yellowish brown (10YR 5/4) masses of iron accumulation; strongly acid; clear wavy boundary.

Bt—7 to 11 inches; yellowish brown (10YR 5/8) loam; weak medium subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; common medium prominent pale brown (10YR 6/3) iron depletions; very strongly acid; abrupt smooth boundary.

Btv1—11 to 16 inches; yellowish brown (10YR 5/8) loam; moderate medium subangular blocky structure; friable; few faint clay films on faces of peds; about 20 percent masses of nodular plinthite; common medium prominent yellowish red (5YR 5/6) masses of iron accumulation; common medium prominent light brownish gray (10YR 6/2) iron depletions; very strongly acid; clear wavy boundary.

Btv2—16 to 29 inches; yellowish brown (10YR 5/8) loam; moderate medium subangular blocky structure; friable; few faint clay films on faces of peds; about 15 percent masses of nodular plinthite; common medium prominent yellowish red (5YR 5/6) masses of iron accumulation; common medium prominent gray (10YR 6/1) iron depletions; very strongly acid; gradual wavy boundary.

Btv3—29 to 33 inches; yellowish brown (10YR 5/8) loam; weak medium subangular blocky structure; friable; few faint clay films on faces of peds; about 10 percent masses of nodular plinthite; common medium prominent gray (10YR 6/1) iron depletions; few medium prominent yellowish red (5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btv4—33 to 80 inches; yellowish brown (10YR 5/8) sandy clay loam; moderate medium subangular blocky structure; firm; few faint clay films on faces of peds; about 5 percent masses of nodular plinthite; common medium prominent gray (2.5Y 6/1) iron depletions; few medium prominent 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 that have been limed

A or Ap horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 1 or 2

Bt horizon:

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 loam

Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Btv horizon (upper part):

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 8

Texture—sandy loam, fine sandy loam, or loam

Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Btv 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 gray, brown, yellow, and red

Texture—loam, sandy clay loam, or clay loam

Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Flomaton Series

Depth class: Very deep
Drainage class: Excessively drained
Permeability: Rapid
Parent material: Stratified sandy and gravelly alluvial sediments
Landform: Hillslopes
Landform position: Shoulder slopes, nose slopes, and the upper part of backslopes
Slope: 10 to 25 percent
Taxonomic class: Sandy-skeletal, siliceous, thermic Psammentic Paleudults (fig. 14)

Commonly Associated Soils

Saffell, Smithdale, and Wadley soils are commonly associated with the Flomaton series.

- The Saffell soils are in positions similar to those of the Flomaton soils but are loamy-skeletal.
- The loamy Smithdale and sandy Wadley soils are in positions similar to those of the Flomaton soils. They have less than 15 percent, by volume, gravel in the particle-size control section.

Typical Pedon

Typical pedon of Flomaton very gravelly loamy sand, in an area of Flomaton-Smithdale-Wadley complex, 10 to 25 percent slopes; about 0.5 mile east of Jackson; 500 feet south and 2,500 feet east of the northwest corner of sec. 14, T. 7 N., R. 2 E.; USGS Walker Springs topographic quadrangle; lat. 31 degrees 33 minutes 8 seconds N. and long. 87 degrees 50 minutes 43 seconds W.

A1—0 to 3 inches; very dark grayish brown (10YR 3/2) very gravelly loamy sand; weak fine granular structure; very friable; many very fine and few fine and medium roots; about 40 percent fine, rounded pebbles of quartzite and chert; strongly acid; abrupt smooth boundary.

A2—3 to 7 inches; brown (10YR 4/3) very gravelly loamy sand; weak fine subangular blocky structure; very friable; common very fine roots; about 35 percent fine, rounded pebbles of quartzite and chert; very strongly acid; clear irregular boundary;

EB—7 to 14 inches; strong brown (7.5YR 4/6) extremely gravelly coarse sand; single grained; loose; common very fine and few fine and medium roots; about 60 percent fine, rounded pebbles of quartzite and chert; very strongly acid; gradual smooth boundary.

BE—14 to 24 inches; yellowish red (5YR 5/6) extremely gravelly loamy coarse sand; massive; very friable; common very fine and few fine roots; sand grains are bridged and coated with clay; common splotches and streaks of uncoated sand; about 65 percent fine, rounded pebbles of quartzite and chert; very strongly acid; clear wavy boundary.

Bt1—24 to 34 inches; yellowish red (5YR 5/8) extremely gravelly loamy coarse sand; massive; very friable; few very fine and fine roots; sand grains are bridged and coated with clay; distinct clay films and stains of ferric oxide on some rock fragments; about 65 percent rounded pebbles of quartzite and chert; very strongly acid; clear wavy boundary.

Bt2—34 to 46 inches; red (2.5YR 4/6) extremely gravelly loamy coarse sand; massive; very friable; few very fine and fine roots; sand grains are bridged and coated with clay; distinct clay films and stains of ferric oxide on some rock

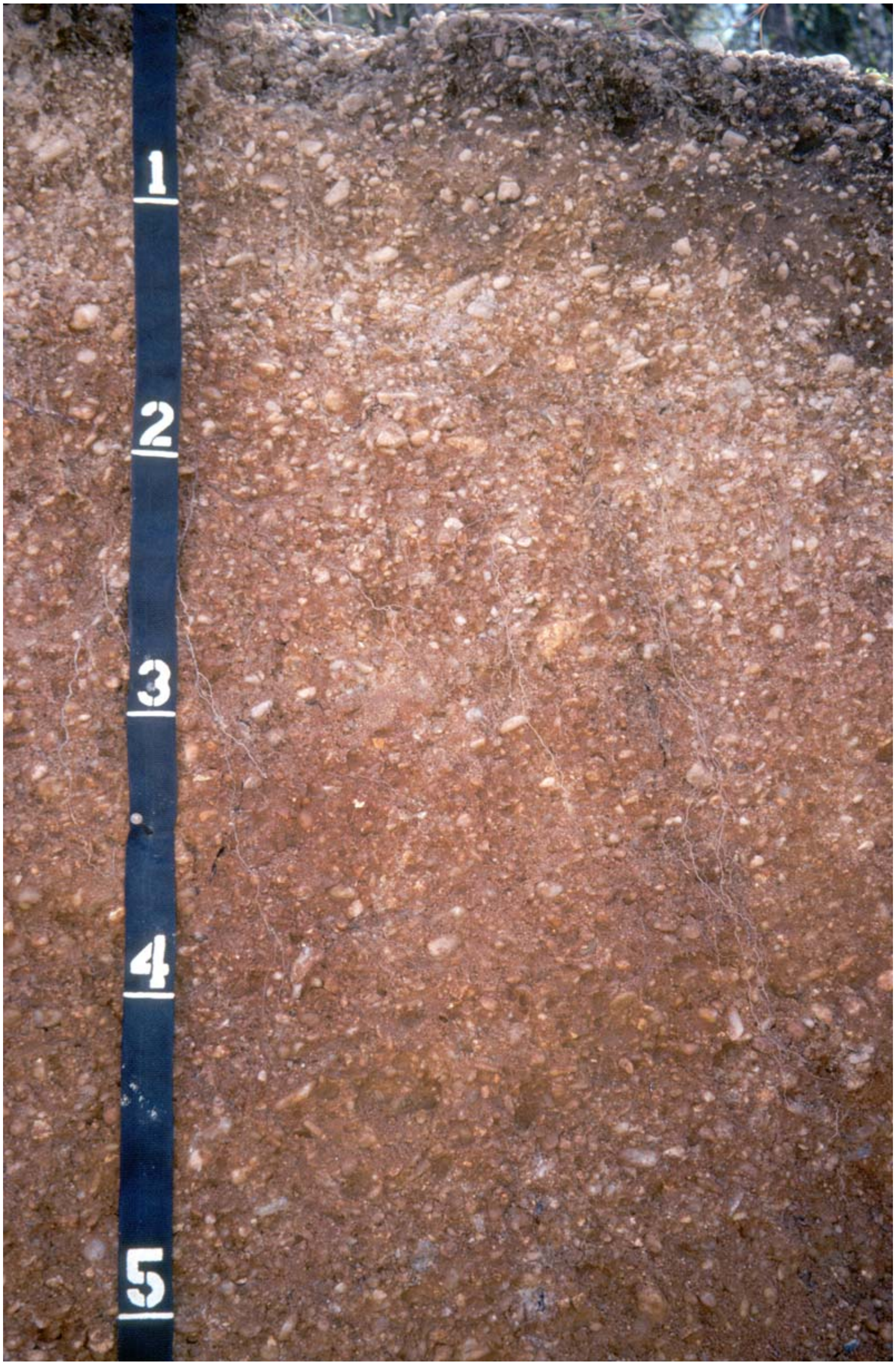

Figure 14.—A profile of a Flomaton soil. Flomaton soils are excessively drained and are on shoulder slopes, nose slopes, and the upper part of backslopes in the uplands. They are very gravelly or extremely gravelly throughout.

fragments; about 65 percent rounded pebbles of quartzite and chert; very strongly acid; gradual wavy boundary.

Bt3—46 to 84 inches; yellowish red (5YR 4/6) extremely gravelly coarse sand; single grained; loose; few very fine roots; about 70 percent rounded pebbles of quartzite and chert; sand grains are bridged and coated with clay; distinct clay films and stains of ferric oxide on some rock fragments; very strongly acid; clear wavy boundary.

C—84 to 100 inches; stratified white (10YR 8/1) and very pale brown (10YR 8/2) very gravelly sand; single grained; loose; about 50 percent quartzite and chert pebbles; many thin lamellae of strong brown (7.5YR 5/8) loamy sand; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Content and size of rock fragments: 35 to 70 percent rounded, fine and medium pebbles of quartzite and chert throughout the profile
Reaction: Very strongly acid or strongly acid throughout the profile

A horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

EB horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 to 8, and chroma of 1 to 6
Texture—very gravelly or extremely gravelly loamy sand, loamy coarse sand, sand, or coarse sand

BE horizon (where present):
Color—hue of 5YR to 10YR, value of 4 to 7, and chroma of 3 to 6
Texture—very gravelly or extremely gravelly loamy sand, loamy coarse sand, sand, or coarse sand

Bt horizon:
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8
Texture—very gravelly or extremely gravelly loamy sand, loamy coarse sand, sand, or coarse sand

C horizon:
Color—hue of 10YR, value of 6 to 8, and chroma of 1 to 6
Texture—very gravelly or extremely gravelly sand or coarse sand

The Flomaton series is classified as sandy-skeletal, siliceous, thermic Lamellic Paleudults. The Flomaton soils in Clarke County, however, are taxadjuncts to the Flomaton series because the argillic horizon does not consist of a series of lamellae as defined for the official series. This difference does not significantly affect the use, management, or interpretations of the soils. In this survey area, the Flomaton soils are sandy-skeletal, siliceous, thermic Psammentic Paleudults.

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 15 percent
Taxonomic class: Fine, smectitic, thermic Vertic Hapludults

Commonly Associated Soils

Brantley, Luverne, and Okeelala soils are commonly associated with the Halso series.

- The well drained, clayey Brantley and loamy Okeelala soils are on ridges and side slopes at lower elevations than the Halso soils.
- The well drained Luverne soils are in positions similar to those of the Halso soils but have mixed mineralogy.

Typical Pedon

Typical pedon of Halso fine sandy loam, 5 to 15 percent slopes, eroded; about 2.5 miles southwest of Bashi; 1,400 feet north and 1,100 feet west of the southeast corner of sec. 9, T. 11 N., R. 2 E.; USGS Bashi topographic quadrangle; lat. 31 degrees 56 minutes 8 seconds N. and long. 87 degrees 52 minutes 25 seconds W.

Ap—0 to 2 inches; dark brown (10YR 3/3) fine sandy loam; weak fine granular structure; very friable; many very fine and fine and common medium and coarse roots; very strongly acid; abrupt wavy boundary.

BA—2 to 4 inches; brown (7.5YR 4/4) clay loam; weak coarse subangular blocky structure; firm; common fine and medium and few coarse roots; very strongly acid; clear wavy boundary.

Bt1—4 to 8 inches; yellowish red (5YR 4/6) clay; moderate coarse angular blocky structure; firm; common fine and few medium and coarse roots; few faint clay films on faces of peds; many pressure faces; very strongly acid; clear wavy boundary.

Bt2—8 to 18 inches; red (2.5YR 4/6) clay; moderate coarse angular blocky structure parting to strong fine angular blocky; firm; common fine and few medium and coarse roots; few faint clay films on faces of peds; many pressure faces; very strongly acid; clear wavy boundary.

Bt3—18 to 25 inches; red (2.5YR 4/6) clay; strong coarse angular blocky structure parting to strong fine angular blocky; firm; common fine, medium, and coarse roots; few faint clay films on faces of peds; many pressure faces; few fine prominent light brownish gray (10YR 6/2) iron depletions; very strongly acid; clear wavy boundary.

Btss—25 to 36 inches; reddish brown (5YR 5/4) clay; strong coarse angular blocky structure parting to moderate fine and medium angular blocky; firm; few fine roots; common faint clay films on faces of peds; few intersecting slickensides that have polished and striated surfaces; many medium and coarse distinct red (2.5YR 4/8) masses of iron accumulation; common medium prominent light brownish gray (2.5Y 6/2) iron depletions; very strongly acid; clear wavy boundary.

BC—36 to 40 inches; dark grayish brown (10YR 4/2) silty clay; weak coarse angular blocky structure; very firm; few fine roots; few faint clay films on faces of peds; common medium prominent dark red (2.5YR 3/6) and yellowish red (5YR 4/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

C—40 to 52 inches; grayish brown (2.5Y 5/2) silty clay; weak thin platy rock structure; firm; few fine, medium, and coarse roots; common medium prominent dark red (2.5YR 3/6) and brownish yellow (10YR 6/8) masses of iron accumulation; very strongly acid; abrupt wavy boundary.

Cr1—52 to 68 inches; light brownish gray (2.5Y 6/2) clayey shale; strong thick platy rock structure; very firm; many fine roots matted on horizontal surfaces; many coarse prominent brownish yellow (10YR 6/8) and common medium prominent dark red (2.5YR 3/6) and reddish brown (2.5YR 5/4) masses of iron accumulation on structural surfaces; very strongly acid; gradual wavy boundary.

Cr2—68 to 80 inches; light brownish gray (10YR 6/2) clayey shale; strong thick platy rock structure; very firm; many coarse prominent brownish yellow (10YR 6/8) and common medium prominent dark red (2.5YR 3/6) and yellowish red (5YR 4/6) 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: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3

BA horizon (where present):
Color—hue of 5YR or 7.5YR, value of 4 to 6, and chroma of 3 or 4
Texture—clay loam or silty clay loam

Bt 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 or red

Btss 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 red, brown, gray, and yellow
Texture—clay or silty clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

BC horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 to 8; or no dominant matrix color and multicolored in shades of gray, brown, red, and yellow
Texture—clay loam, silty clay loam, silty clay, or clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

C horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 to 6
Texture—clay loam, silty clay loam, silty clay, or clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

Cr horizon:
Type of bedrock—weathered, shale or shale-like sediments; massive or platy rock structure
Other—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

Harleston Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Moderate
Parent material: Sandy and loamy alluvial sediments
Landform: Stream terraces
Landform position: Convex slopes on summits

Slope: 0 to 2 percent
Taxonomic class: Coarse-loamy, siliceous, semiactive, thermic Aquic Paleudults

Commonly Associated Soils

Escambia, Ocilla, and Pelham soils are commonly associated with the Harleston series.

- The somewhat poorly drained Escambia soils are in slightly lower, less convex positions than those of the Harleston soils.
- The somewhat poorly drained Ocilla and poorly drained Pelham soils are in lower positions than those of the Harleston soils and have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Harleston loamy fine sand, 0 to 2 percent slopes; about 1.75 miles southwest of Chilton; 150 feet north and 100 feet east of the southwest corner of sec. 3, T. 9 N., R. 2 E.; USGS Fulton West topographic quadrangle; lat. 31 degrees 46 minutes 40 seconds N. and long. 87 degrees 52 minutes 19 seconds W.

Ap—0 to 6 inches; brown (10YR 4/3) loamy fine sand; weak fine granular structure; very friable; common fine and medium roots; strongly acid; clear smooth boundary.

E—6 to 13 inches; yellowish brown (10YR 5/4) loamy fine sand; weak coarse subangular blocky structure; very friable; common fine and medium roots; strongly acid; clear smooth boundary.

Bt1—13 to 27 inches; yellowish brown (10YR 5/4) fine sandy loam; weak coarse subangular blocky structure; very friable; few fine roots; few faint clay films on faces of peds; few thin streaks of light gray (10YR 7/1) fine sand; common fine and medium faint light yellowish brown (10YR 6/4) and few fine faint pale brown (10YR 6/3) iron depletions; strongly acid; clear wavy boundary.

Bt2—27 to 46 inches; yellowish brown (10YR 5/6) fine sandy loam; weak coarse subangular blocky structure; very friable; few fine roots; few faint clay films on faces of peds; few fine streaks of light gray (10YR 7/1) fine sand; common medium distinct light yellowish brown (10YR 6/4) and common fine distinct gray (10YR 6/1) and light brownish gray (10YR 6/2) iron depletions; strongly acid; clear wavy boundary.

Bt3—46 to 72 inches; yellowish brown (10YR 5/6) fine sandy loam; weak coarse subangular blocky structure; very friable; few faint clay films on faces of peds; common streaks of light gray (10YR 7/1) fine sand; common medium faint yellowish brown (10YR 5/8) masses of iron accumulation; common fine and medium distinct light brownish gray (10YR 6/2) and light gray (10YR 7/1) iron depletions; 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 that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3

E horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 4
Texture—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 loam, fine sandy loam, or loam

Redoximorphic features (where present)—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Bt horizon (lower part):

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8
Texture—sandy loam, fine sandy loam, loam, or sandy clay loam
Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

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: Convex slopes on high or intermediate parts of natural levees
Slope: 0 to 1 percent
Taxonomic class: Coarse-loamy, siliceous, active, acid, thermic Aquic Udifluvents

Commonly Associated Soils

Bibb, Mantachie, and Ochlockonee soils are commonly associated with the Iuka series.

- The poorly drained Bibb and somewhat poorly drained Mantachie soils are in lower, less convex positions than those of the Iuka soils.
- The well drained Ochlockonee soils are in slightly higher positions than those of the Iuka soils.

Typical Pedon

Typical pedon of Iuka sandy loam, in an area of Iuka, Bibb, and Mantachie soils, 0 to 1 percent slopes, frequently flooded; about 0.7 mile northeast of Mays Crossroads; 50 feet south and 2,500 feet west of the northeast corner of sec. 4, T. 7 N., R. 1 E.; USGS Jackson topographic quadrangle; lat. 31 degrees 35 minutes 49 seconds N. and long. 87 degrees 58 minutes 48 seconds W.

A—0 to 3 inches; dark grayish brown (10YR 4/2) sandy loam; weak fine granular structure; very friable; many fine and medium roots; few coarse faint brown (10YR 4/3) masses of iron accumulation; strongly acid; abrupt smooth boundary.

C1—3 to 16 inches; brown (10YR 4/3) and yellowish brown (10YR 5/4) sandy loam; massive; thinly bedded; very friable; many fine and medium roots; few thin strata of loamy sand; strongly acid; clear wavy boundary.

C2—16 to 31 inches; dark yellowish brown (10YR 4/4) sandy loam; massive; thinly bedded; very friable; few fine roots; few thin strata of sand; common medium distinct gray (10YR 5/1) iron depletions; very strongly acid; clear wavy boundary.

Cg1—31 to 50 inches; light gray (10YR 6/1) sandy loam; massive; thinly bedded; very friable; few fine and medium roots; few thin strata of brown (10YR 4/4) sand in the lower part; common medium distinct yellowish brown (10YR 5/4) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Cg2—50 to 80 inches; light brownish gray (10YR 6/2) loamy sand; massive; thinly bedded; very friable; few thin strata of dark yellowish brown (10YR 4/4) sandy loam; very strongly acid.

Range in Characteristics

Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

C horizon:
Color—hue of 10YR, value of 4 to 6, and chroma of 3 to 6
Texture—sandy loam, fine sandy loam, loam, or silt loam; strata of finer or coarser textured material in most pedons
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown

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 gray, brown, and red
Texture—loamy sand, sandy loam, or fine sandy loam; strata of finer or coarser textured material in most pedons
Redoximorphic features—masses of iron accumulation in shades of brown, red, or yellow

Izagora Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Slow
Parent material: Loamy alluvial sediments
Landform: Low stream terraces
Landform position: Slightly convex slopes on summits
Slope: 0 to 3 percent
Taxonomic class: Fine-loamy, siliceous, semiactive, thermic Aquic Paleudults

Commonly Associated Soils

Cahaba, Chrysler, Jedburg, Lenoir, and Myatt soils are commonly associated with the Izagora series.

- The well drained Cahaba soils are in slightly higher, more convex positions than those of the Izagora soils.
- The moderately well drained, clayey Chrysler soils are in positions similar to those of the Izagora soils but are at slightly higher elevations.
- The poorly drained Myatt and somewhat poorly drained Jedburg and Lenoir soils are in lower, less convex positions than those of the Izagora soils.

Typical Pedon

Typical pedon of Izagora fine sandy loam, in an area of Izagora-Jedburg complex, gently undulating, occasionally flooded; about 4 miles southwest of Bashi; about 400 feet north and 1,500 feet east of the southwest corner of sec. 36, T. 12 N., R. 1 E.; USGS Morvin topographic quadrangle; lat. 31 degrees 57 minutes 45 seconds N. and long. 87 degrees 55 minutes 34 seconds W.

A—0 to 4 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak medium granular structure; very friable; common fine, medium, and coarse roots; very strongly acid; clear wavy boundary.
E—4 to 7 inches; brown (10YR 5/3) fine sandy loam; weak medium subangular

blocky structure; very friable; common fine, medium, and coarse roots; very strongly acid; clear wavy boundary.

Bt1—7 to 16 inches; yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable; common very fine and fine roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—16 to 35 inches; yellowish brown (10YR 5/6) sandy clay loam; moderate medium subangular blocky structure; friable; common very fine and fine roots; few faint clay films on faces of peds; common medium distinct light brownish gray (10YR 6/2) iron depletions; common medium prominent red (2.5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bt3—35 to 49 inches; 45 percent light brownish gray (10YR 6/2), 35 percent red (2.5YR 4/6), and 20 percent strong brown (7.5YR 5/6) clay loam; moderate medium subangular blocky structure; firm; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt4—49 to 80 inches; 40 percent light brownish gray (2.5Y 6/2), 35 percent light yellowish brown (10YR 6/4), and 25 percent strong brown (7.5YR 5/8) clay loam; weak coarse subangular blocky structure; firm; few faint clay films on faces of peds; 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 that have been limed

A or Ap horizon:

Color—hue of 10YR, value of 2 to 4, and chroma of 2 or 3

E horizon (where present):

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 or 4

Texture—fine sandy loam, loam, or silt loam

Bt horizon (upper part):

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8

Texture—loam, sandy clay loam, or clay loam

Redoximorphic features (where present)—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of red or brown

Bt horizon (lower part):

Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 3 to 8; or no dominant matrix color and multicolored in shades of red, gray, and brown

Texture—sandy clay loam, clay loam, or clay

Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of red, yellow, or brown

Jedburg Series

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderately slow

Parent material: Loamy and clayey alluvial sediments

Landform: Low stream terraces

Landform position: Flat or slightly concave slopes and swales

Slope: 0 to 2 percent

Taxonomic class: Fine-loamy, siliceous, semiactive, thermic Aeric Paleaquults

Commonly Associated Soils

Cahaba, Chrysler, Izagora, Lenoir, and Myatt soils are commonly associated with the Jedburg series.

- The well drained Cahaba and moderately well drained Izagora soils are on higher, more convex positions than those of the Jedburg soils.
- The clayey, moderately well drained Chrysler soils are in higher, more convex positions than those of the Jedburg soils.
- The clayey Lenoir soils are in positions similar to those of the Jedburg soils.
- The poorly drained Myatt soils are in lower positions than those of the Jedburg soils.

Typical Pedon

Typical pedon of Jedburg loam, in an area of Izagora-Jedburg complex, gently undulating, occasionally flooded; about 5 miles southwest of Bashi; about 1,900 feet north and 2,200 feet west of the southeast corner of sec. 2, T. 11 N., R. 1 E.; USGS Morvin topographic quadrangle; lat. 31 degrees 57 minutes 6 seconds N. and long. 87 degrees 56 minutes 42 seconds W.

Ap1—0 to 1 inch; dark grayish brown (10YR 4/2) loam; weak fine granular structure; very friable; common fine, medium, and coarse roots; strongly acid; abrupt smooth boundary.

Ap2—1 to 4 inches; dark yellowish brown (10YR 4/4) loam; weak medium subangular blocky structure; very friable; common fine and medium and few coarse roots; few fine concretions of iron and manganese oxides; strongly acid; clear wavy boundary.

BA—4 to 10 inches; 60 percent yellowish brown (10YR 5/4) and 40 percent brown (10YR 5/3) fine sandy loam; weak medium subangular blocky structure; very friable; common very fine, fine, and medium roots; few fine concretions of iron and manganese oxides; few medium distinct dark yellowish brown (10YR 5/6) masses of iron accumulation; areas of brown are iron depletions; strongly acid; clear smooth boundary.

Bt1—10 to 16 inches; yellowish brown (10YR 5/4) loam; weak coarse subangular blocky structure; friable; common very fine and few fine roots; few faint clay films on faces of peds; common fine and medium concretions of iron and manganese oxides; many common distinct grayish brown (10YR 5/2) iron depletions; many medium distinct dark yellowish brown (10YR 4/4) and few fine distinct yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Bt2—16 to 24 inches; yellowish brown (10YR 5/4) loam; moderate medium subangular blocky structure; friable; common very fine and fine roots; few faint clay films on faces of peds; common fine and medium concretions of iron and manganese oxides; many coarse distinct grayish brown (10YR 5/2) iron depletions; many medium distinct yellowish brown (10YR 5/8) masses of iron accumulation; very strongly acid; clear smooth boundary.

Btg1—24 to 32 inches; light brownish gray (10YR 6/2) loam; moderate medium subangular blocky structure; friable; few faint clay films on faces of peds; common fine and medium concretions of iron and manganese oxides; many medium prominent yellowish brown (10YR 5/6) and few medium prominent strong brown (7.5YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btg2—32 to 42 inches; grayish brown (2.5Y 5/2) clay loam; moderate medium subangular blocky structure; firm; few faint clay films on faces of peds; common fine and medium concretions of iron and manganese oxides; many medium prominent yellowish brown (10YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btg3—42 to 58 inches; light brownish gray (2.5Y 6/2) sandy clay; moderate coarse subangular blocky structure; firm; few faint clay films on faces of peds; common fine and medium concretions of iron and manganese oxides; many medium and coarse prominent yellowish brown (10YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btg4—58 to 80 inches; gray (2.5Y 6/1) clay; weak coarse subangular blocky structure; very firm; few faint clay films on faces of peds; common medium and coarse prominent strong brown (7.5YR 5/8) 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 that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 2 to 4, and chroma of 2 to 4

BA or BE horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4
Texture—sandy loam, fine sandy loam, or loam
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red or brown

Bt horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 4 to 8
Texture—loam, sandy clay loam, or clay loam
Redoximorphic features—iron or clay depletions in shades of gray or brown and 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—loam, sandy clay loam, or clay loam in the upper part and clay loam, sandy clay, or clay in the lower part
Redoximorphic features—masses of iron accumulation in shades of red, yellow, or brown

Latonia Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately rapid
Parent material: Loamy and sandy alluvium
Landform: Low stream terraces
Landform position: Convex slopes
Slope: 0 to 2 percent
Taxonomic class: Coarse-loamy, siliceous, semiactive, thermic Typic Hapludults

Commonly Associated Soils

Bibb, Cahaba, Izagora, Una, and Urbo soils are commonly associated with the Latonia series.

- The poorly drained Bibb soils are in low positions on flood plains.
- The Cahaba soils are in positions similar to those of the Latonia soils but are fine-loamy.

- The Izagora soils are in positions similar to those of the Latonia soils but are at higher elevations.
- The poorly drained Una and somewhat poorly drained Urbo soils are on flood plains in lower positions than those of the Latonia soils.

Typical Pedon

Typical pedon of Latonia loamy sand, 0 to 2 percent slopes, occasionally flooded; about 3 miles southwest of Gosport; about 1,300 feet south and 2,500 feet east of the northwest corner of sec. 36, T. 7 N., R. 4 E.; USGS Suggsville topographic quadrangle; lat. 31 degrees 32 minutes 6 seconds N. and long. 87 degrees 37 minutes 32 seconds W.

Ap1—0 to 4 inches; brown (10YR 4/3) loamy sand; weak fine granular structure; very friable; common fine and medium roots; very strongly acid; abrupt smooth boundary.

Ap2—4 to 8 inches; dark yellowish brown (10YR 4/4) loamy sand; weak fine granular structure; very friable; common fine and medium roots; very strongly acid; clear smooth boundary.

Bt1—8 to 13 inches; dark yellowish brown (10YR 4/6) sandy loam; weak coarse subangular blocky structure; very friable; common very fine and fine roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—13 to 19 inches; brown (7.5YR 4/4) sandy loam; weak medium subangular blocky structure; very friable; few very fine and fine roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt3—19 to 38 inches; brown (7.5YR 5/4) sandy loam; weak medium subangular blocky structure; very friable; few very fine roots; common faint clay films on faces of peds; very strongly acid; clear wavy boundary.

C1—38 to 63 inches; yellowish brown (10YR 5/6) loamy sand; massive; very friable; very strongly acid; gradual wavy boundary.

C2—63 to 80 inches; yellowish brown (10YR 5/8) sand; single grained; loose; very strongly acid.

Range in Characteristics

Thickness of the solum: 30 to 45 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 8
Texture—sandy loam, fine sandy loam, or loam

C horizon:
Color—hue of 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—loamy sand or sand

Lenoir Series

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Slow
Parent material: Clayey alluvial sediments
Landform: Low stream terraces
Landform position: Flat or slightly concave slopes

Slope: 0 to 2 percent
Taxonomic class: Fine, mixed, semiactive, thermic Aeric Paleaquults

Commonly Associated Soils

Cahaba, Chrysler, Izagora, Jedburg, Latonia, and Urbo soils are commonly associated with the Lenoir series.

- The well drained, loamy Cahaba and Latonia soils are in higher, more convex positions than those of the Lenoir soils.
- The moderately well drained Chrysler and Izagora soils are in higher, more convex positions than those of the Lenoir soils.
- The loamy Jedburg soils are in positions similar to those of the Lenoir soils.
- The somewhat poorly drained Urbo soils are on flood plains in lower positions than those of the Lenoir soils.

Typical Pedon

Typical pedon of Lenoir silt loam, 0 to 2 percent slopes, occasionally flooded; about 1.5 miles southwest of Carlton; 2,100 feet south and 700 feet east of the northwest corner of sec. 10, T. 4 N., R. 2 E.; USGS Carlton topographic quadrangle; lat. 31 degrees 19 minutes 48 seconds N. and long. 87 degrees 52 minutes 8 seconds W.

Ap—0 to 2 inches; dark grayish brown (10YR 4/2) silt loam; moderate fine granular structure; very friable; common fine, medium, and coarse roots; very strongly acid; abrupt smooth boundary.

AB—2 to 6 inches; yellowish brown (10YR 5/4) loam; weak medium subangular blocky structure; friable; common fine, medium, and coarse roots; common medium faint yellowish brown (10YR 5/6) masses of iron accumulation; few fine distinct light brownish gray (10YR 6/2) iron depletions; very strongly acid; clear wavy boundary.

Bt—6 to 12 inches; 70 percent brown (10YR 5/3) and 30 percent yellowish brown (10YR 5/4) clay loam; moderate medium subangular blocky structure; firm; common very fine and fine roots; common faint clay films on faces of peds; few medium soft masses of iron and manganese oxides; few medium distinct light brownish gray (10YR 6/2) iron depletions; very strongly acid; clear wavy boundary.

Btg1—12 to 22 inches; light brownish gray (10YR 6/2) clay; weak coarse prisms parting to strong medium and coarse subangular blocky structure; firm; few very fine and fine roots; few faint clay films on faces of peds; common medium soft masses of iron and manganese oxides; common medium distinct yellowish brown (10YR 5/4) and few fine prominent red (2.5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg2—22 to 57 inches; gray (2.5Y 6/1) clay; weak coarse prisms parting to strong medium and coarse subangular blocky structure; firm; few very fine roots; few faint clay films on faces of peds; common medium soft masses of iron and manganese oxides; common medium prominent brownish yellow (10YR 6/6) and red (2.5YR 4/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg3—57 to 80 inches; gray (2.5Y 6/1) clay; weak coarse prisms parting to moderate medium and coarse subangular blocky structure; firm; common faint clay films on faces of peds; common medium and coarse prominent yellowish brown (10YR 5/6), strong brown (7.5YR 4/6), and red (2.5YR 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 that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3

AB or BA horizon (where present):
Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4
Texture—fine sandy loam, loam, or silt loam

Bt horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 8
Texture—clay loam, clay, or silty clay
Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of red, yellow, or brown

Btg 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 red, gray, and brown
Texture—clay loam, clay, or silty clay
Redoximorphic features—masses of iron accumulation in shades of red, yellow, or brown

Lorman Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Very slow
Parent material: Clayey marine sediments
Landform: Low ridges; hillslopes
Landform position: Summits, shoulder slopes, backslopes, and footslopes
Slope: 2 to 45 percent
Taxonomic class: Fine, smectitic, thermic Chromic Vertic Hapludalfs

Commonly Associated Soils

Brantley, Okeelala, Suggsville, and Toxey soils are commonly associated with the Lorman series.

- The well drained Brantley soils are in positions similar to those of the Lorman soils but have mixed mineralogy.
- The loamy Okeelala soils are on side slopes at higher or lower elevations than the Lorman soils.
- The Suggsville soils are in positions similar to those of the Lorman soils but are at higher elevations and have soft bedrock within a depth of 40 to 60 inches.
- The Toxey soils are in positions similar to those of the Lorman soils but do not have an argillic horizon.

Typical Pedon

Typical pedon of Lorman fine sandy loam, in an area of Toxey-Lorman complex, 5 to 15 percent slopes; about 3 miles southeast of Suggsville; about 100 feet south and 1,900 feet west of the northeast corner of sec. 23, T. 7 N., R. 4 E.; USGS Suggsville topographic quadrangle; lat. 31 degrees 33 minutes 37 seconds N. and long. 87 degrees 37 minutes 29 seconds W.

Ap—0 to 5 inches; very dark gray (10YR 3/1) fine sandy loam; weak fine subangular blocky structure; very friable; many very fine, fine, and medium and few coarse roots; strongly acid; abrupt smooth boundary.
E—5 to 9 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak coarse subangular blocky structure; very friable; common very fine and fine and few

medium and coarse roots; common medium distinct yellowish brown (10YR 5/6) and dark brown (7.5YR 3/4) masses of iron accumulation; strongly acid; clear smooth boundary.

Bt—9 to 18 inches; yellowish red (5YR 4/6) clay; moderate medium angular blocky structure; firm; common very fine, fine, and medium roots; few faint clay films on faces of peds; few fine, rounded quartzite pebbles; few fine and medium ironstone concretions; many fine distinct brown (10YR 4/3) iron depletions; common fine distinct red (2.5YR 4/6) masses of iron accumulation; strongly acid; clear wavy boundary.

Btss1—18 to 26 inches; clay, red (2.5YR 4/6) exterior and brown (10YR 4/3) interior; moderate medium angular blocky structure; firm; common very fine and fine roots; few faint clay films on faces of peds; few intersecting slickensides that have polished and striated surfaces; few fine, rounded quartzite pebbles; few fine and medium ironstone concretions; few fine distinct light brownish gray (2.5Y 6/2) iron depletions; very strongly acid; gradual wavy boundary.

Btss2—26 to 36 inches; light yellowish brown (10YR 6/4) clay; moderate medium angular blocky structure; firm; few very fine and fine roots; few faint clay films on faces of peds; common large intersecting slickensides that have polished and striated surfaces; common medium prominent yellowish red (5YR 4/6) masses of iron accumulation; few medium distinct light brownish gray (2.5Y 6/2) iron depletions; slightly acid; gradual wavy boundary.

Btss3—36 to 55 inches; light yellowish brown (10YR 6/4) clay; moderate medium angular blocky structure; firm; few fine roots; few distinct yellowish brown (10YR 5/4) clay films on faces of peds; common large intersecting slickensides that have polished and grooved surfaces; common medium prominent red (2.5YR 4/6) masses of iron accumulation; few fine distinct light brownish gray (2.5Y 6/2) iron depletions; slightly alkaline; clear wavy boundary.

BC—55 to 60 inches; light yellowish brown (2.5Y 6/3) clay; weak coarse angular blocky structure; very firm; few very fine roots; few fine nodules of calcium carbonate; many dark sand grains; common medium prominent yellowish brown (10YR 5/8) masses of iron accumulation; slightly effervescent; moderately alkaline; clear wavy boundary.

C1—60 to 76 inches; pale yellow (2.5Y 7/3) clay; massive; very firm; few very fine roots; few fine nodules of calcium carbonate; many dark sand grains; few medium prominent brownish yellow (10YR 6/6) masses of iron accumulation; moderately effervescent; moderately alkaline; clear wavy boundary.

C2—76 to 80 inches; 70 percent pale yellow (2.5Y 7/4) and 30 percent white (2.5Y 8/1) clay loam; massive; firm; few soft masses of calcium carbonate; common dark sand grains; strongly effervescent; moderately alkaline.

Range in Characteristics

Thickness of the solum: 40 to 65 inches

Reaction: Very strongly acid or strongly acid in the A and E horizons and the upper part of the B horizon; strongly acid to moderately alkaline in the lower part of the B horizon and in the BC and C horizons

A or Ap horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3

E horizon:

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4

Texture—fine sandy loam or loam

Redoximorphic features (where present)—masses of iron accumulation in shades of brown

Bt 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—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown or red

Btss 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 red, brown, gray, and yellow
Texture—clay or silty clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

BC horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 8; or no dominant matrix color and multicolored in shades of gray, brown, red, or yellow
Texture—loam, clay loam, silty clay loam, silty clay, or clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

C horizon:
Color—hue of 10YR or 2.5Y, value of 5 to 8, and chroma of 1 to 6; or no dominant matrix color and multicolored in shades of gray, brown, olive, or yellow
Texture—loam, clay loam, silty clay loam, silty clay, or clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

Lucedale Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy alluvial sediments
Landform: High stream terraces
Landform position: Convex slopes on summits and on shoulder slopes
Slope: 0 to 5 percent
Taxonomic class: Fine-loamy, siliceous, subactive, thermic Rhodic Paleudults (fig. 15)

Commonly Associated Soils

Bama, Boykin, Luverne, Malbis, and Smithdale soils are commonly associated with the Lucedale series.

- The Bama soils are in positions similar to those of the Lucedale soils but do not have dark red colors throughout the argillic horizon.
- The Boykin, Luverne, and Smithdale soils are on side slopes. Boykin soils have a thick, sandy epipedon. Luverne soils have a clayey argillic horizon. Smithdale soils do not have dark red colors throughout the argillic horizon.
- The Malbis soils are in positions similar to those of the Lucedale soils but have a brownish argillic horizon.

Typical Pedon

Typical pedon of Lucedale sandy loam, 0 to 2 percent slopes; 1.5 miles north of Gosport; 1,300 feet south and 2,050 feet east of the northwest corner of sec. 5, T. 7 N., R. 5 E.; USGS Claiborne topographic quadrangle; lat. 31 degrees 36 minutes 20 seconds N. and long. 87 degrees 35 minutes 36 seconds W.

Figure 15.—A profile of a Lucedale soil. Lucedale soils formed in thick deposits of loamy sediments. They are very deep, are loamy, and are dark red throughout the subsoil. They are on summits of high terraces.

Ap—0 to 7 inches; dark reddish brown (5YR 3/3) sandy loam; weak fine granular structure; very friable; few fine roots; slightly acid; abrupt smooth boundary.
Bt1—7 to 16 inches; dark reddish brown (2.5YR 3/4) sandy clay loam; weak medium subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; strongly acid; gradual wavy boundary.
Bt2—16 to 43 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; very strongly acid; gradual wavy boundary.
Bt3—43 to 80 inches; dark red (2.5YR 3/6) sandy clay loam; weak coarse subangular blocky structure; friable; few faint clay films on faces of peds; few fine, rounded quartzite pebbles; 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 that have been limed

Ap horizon:
Color—hue of 2.5YR to 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—sandy clay loam, loam, or clay loam

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, Boykin, Halso, Smithdale, and Wadley 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.
- The Boykin and Wadley soils are on shoulder slopes or footslopes and have a thick, sandy epipedon.
- The loamy Smithdale soils are in positions similar to those of the Luverne soils.

Typical Pedon

Typical pedon of Luverne sandy loam, 5 to 15 percent slopes; about 0.75 mile northwest of Thomasville; 1,000 feet south and 1,200 feet east of the northwest corner of sec. 10, T. 11 N., R. 3 E.; USGS Bashi topographic quadrangle; lat. 31 degrees 56 minutes 38 seconds N. and long. 87 degrees 45 minutes 47 seconds W.

Ap—0 to 6 inches; brown (7.5YR 4/3) sandy loam; weak fine granular structure; friable; many fine and medium and few coarse roots; strongly acid; clear smooth boundary.
Bt1—6 to 23 inches; red (2.5YR 4/6) clay; weak medium prisms parting to strong medium subangular blocky structure; firm; common fine, medium, and coarse

roots; few faint clay films on faces of peds; few fine flakes of mica; about 5 percent fine ironstone concretions; strongly acid; gradual wavy boundary.

Bt2—23 to 34 inches; yellowish red (5YR 4/6) clay loam; moderate medium subangular blocky structure; firm; common distinct clay films on faces of peds; few fine flakes of mica; few fine fragments of light gray (10YR 7/2) weathered shale; few medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

C1—34 to 47 inches; 35 percent strong brown (7.5YR 5/8), 25 percent brownish yellow (10YR 6/6), 20 percent yellowish red (5YR 5/8), and 20 percent light gray (10YR 7/2) fine sandy loam and loam; massive; thinly bedded; friable; few fine roots; many fine flakes of mica; common thin strata of red (2.5YR 4/6) clay; areas of light gray are iron depletions; very strongly acid; gradual wavy boundary.

C2—47 to 80 inches; 40 percent gray (10YR 6/1), 25 percent brownish yellow (10YR 6/6), 20 percent strong brown (7.5YR 5/6), and 15 percent yellowish red (5YR 4/6) fine sandy loam and loam; massive; thinly bedded; friable; few fine roots; many fine flakes of mica; areas of gray are 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 that have been limed

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 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

C horizon:

Color—commonly no dominant matrix color and multicolored in shades of yellow, red, and brown; or hue of 2.5YR to 10YR, value of 5 to 7, and chroma of 3 to 8

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 alluvial sediments

Landform: High stream terraces
Landform position: Summits, shoulder slopes, and side slopes
Slope: 1 to 5 percent
Taxonomic class: Fine-loamy, siliceous, subactive, thermic Plinthic Paleudults

Commonly Associated Soils

Bama, Lucedale, and Savannah soils are commonly associated with the Malbis series.

- The Bama and Lucedale soils are in slightly higher, more convex positions than those of the Malbis soils and have reddish subsoils.
- The moderately well drained Savannah soils are in positions similar to those of the Malbis soils but have a fragipan.

Typical Pedon

Typical pedon of Malbis fine sandy loam, 1 to 5 percent slopes; about 3.5 miles southwest of Gainestown; 1,500 feet north and 1,170 feet east of the southwest corner of sec. 2, T. 5 N., R. 3 E.; USGS Gainestown topographic quadrangle; lat. 31 degrees 25 minutes 15 seconds N. and long. 87 degrees 44 minutes 52 seconds W.

Ap—0 to 4 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; very friable; common fine and medium roots; very strongly acid; clear smooth boundary.

E—4 to 9 inches; yellowish brown (10YR 5/4) fine sandy loam; weak coarse subangular blocky structure; very friable; common fine and medium and few coarse roots; strongly acid; clear smooth boundary.

Bt1—9 to 19 inches; yellowish brown (10YR 5/8) loam; moderate medium subangular blocky structure; friable; few fine and medium roots; few faint clay films on faces of peds; very strongly acid; clear smooth boundary.

Bt2—19 to 38 inches; yellowish brown (10YR 5/6) loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common faint clay films on faces of peds; very strongly acid; clear smooth boundary.

Btv1—38 to 47 inches; yellowish brown (10YR 5/6) loam; weak coarse subangular blocky structure; firm; common faint clay films on faces of peds; about 10 percent masses of nodular plinthite; common medium distinct pale brown (10YR 6/3) iron depletions; common medium prominent yellowish red (5YR 4/6) masses of iron accumulation; very strongly acid; clear smooth boundary.

Btv2—47 to 80 inches; yellowish brown (10YR 5/8) loam; weak coarse subangular blocky structure; firm; common faint clay films on faces of peds; about 15 percent masses of nodular plinthite; common fine and medium distinct light brownish gray (10YR 6/2) and pale brown (10YR 6/3) iron depletions; common medium prominent 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 that have been limed
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 or 3

E horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4
Texture—fine sandy loam or sandy 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 red, brown, 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 red, brown, yellow, and gray
Texture—loam, sandy clay loam, or clay loam
Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, 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

Bibb, Iuka, and Ochlockonee soils and Fluvaquents are commonly associated with the Mantachie series.

- The poorly drained Bibb soils and very poorly drained Fluvaquents are in low, concave positions in backswamps.
- The moderately well drained Iuka and well drained Ochlockonee soils are on the high parts of natural levees.

Typical Pedon

Typical pedon of Mantachie silt loam, in an area of Iuka, Bibb, and Mantachie soils, 0 to 1 percent slopes, frequently flooded; about 5 miles southwest of Grove Hill; 1,750 feet south and 700 feet west of the northeast corner of sec. 15, T. 8 N., R. 2 E.; USGS Grove Hill topographic quadrangle; lat. 31 degrees 39 minutes 55 seconds N. and long. 87 degrees 51 minutes 23 seconds W.

A—0 to 9 inches; dark brown (10YR 3/3) silt loam; weak fine granular structure; very friable; many fine and few medium and coarse roots; few fine faint dark grayish brown (10YR 4/2) iron depletions; very strongly acid; clear smooth boundary.

Bw—9 to 20 inches; 60 percent brown (10YR 4/3) and 40 percent gray (10YR 5/1) loam; weak coarse subangular blocky structure; very friable; many fine roots; areas of gray are iron depletions; very strongly acid; clear wavy boundary.

Bg1—20 to 30 inches; gray (10YR 5/1) clay loam; weak medium subangular blocky structure; friable; many fine roots; common medium distinct brown (10YR 4/3) and yellowish brown (10YR 5/4) masses of iron accumulation; very strongly acid; clear wavy boundary.

Bg2—30 to 39 inches; gray (10YR 5/1) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; common medium distinct dark yellowish brown (10YR 4/4) masses of iron accumulation; very strongly acid; clear wavy boundary.

Cg—39 to 80 inches; gray (10YR 5/1) sandy loam; massive; thinly bedded; very friable; common thin strata of loamy sand; few fine distinct dark yellowish brown (10YR 4/4) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: 35 to more than 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 to 4, and chroma of 2 or 3

Bw horizon:
Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 6; or no dominant matrix color and multicolored in shades of brown, yellow, red, 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

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—loam, sandy clay loam, or clay loam
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red

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, yellow, red, and gray
Texture—sandy loam, loam, sandy clay loam, or loamy sand; strata of finer or coarser textured material in most pedons
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red

Maubila Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Slow
Parent material: Clayey marine sediments
Landform: Ridges and hillslopes
Landform position: Summits, shoulder slopes, side slopes, and knolls
Slope: 2 to 30 percent
Taxonomic class: Fine, mixed, subactive, thermic Aquic Hapludults

Commonly Associated Soils

Boykin, Olla, Smithdale, and Wadley soils are commonly associated with the Maubila series.

- The Boykin and Wadley soils are on knolls and summits at slightly higher elevations than the Maubila soils or on side slopes at lower elevations. The Boykin and Wadley soils have a thick, sandy epipedon.

- The loamy Olla and Smithdale soils are in positions similar to those of the Maubila soils.

Typical Pedon

Typical pedon of Maubila flaggy sandy loam, in an area of Olla-Maubila complex, 2 to 8 percent slopes; about 2.75 northwest of Zimco; 150 feet north and 1,650 feet east of the southwest corner of sec. 19, T. 9 N., R. 2 E.; USGS Winn topographic quadrangle; lat. 31 degrees 43 minutes 42 seconds N. and long. 87 degrees 55 minutes 2 seconds W.

A—0 to 5 inches; dark grayish brown (10YR 4/2) flaggy sandy loam; weak fine granular structure; very friable; common fine roots; about 20 percent angular ironstone fragments; very strongly acid; clear wavy boundary.

E—5 to 8 inches; yellowish brown (10YR 5/4) flaggy sandy loam; weak fine granular structure; very friable; few fine roots; about 20 percent angular ironstone fragments; strongly acid; abrupt wavy boundary.

Bt1—8 to 15 inches; strong brown (7.5YR 5/6) clay loam; moderate medium angular blocky structure; firm; few fine and medium roots; few faint clay films on faces of peds; about 5 percent ironstone pebbles and channers; few medium prominent red (2.5YR 4/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Bt2—15 to 22 inches; strong brown (7.5YR 5/6) clay; moderate medium angular blocky structure; firm; few fine and medium roots; few faint clay films on faces of peds; about 5 percent ironstone pebbles and channers; common medium distinct light yellowish brown (10YR 6/4) iron depletions; many medium prominent red (2.5YR 4/6) masses of iron accumulation; very strongly acid; clear smooth boundary.

Bt3—22 to 42 inches; 45 percent brownish yellow (10YR 6/6), 30 percent light gray (10YR 7/2), and 25 percent weak red (10R 4/4) clay; moderate coarse angular blocky structure parting to moderate medium angular blocky; firm; few fine and medium roots; few faint clay films on faces of peds; areas of light gray are iron depletions; very strongly acid; gradual wavy boundary.

BC—42 to 55 inches; light gray (10YR 7/1) clay loam; moderate very coarse angular blocky structure; very firm; few fine roots; few faint clay films on vertical faces of peds; many coarse prominent red (2.5YR 4/6), yellowish red (5YR 5/8), and brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

C—55 to 80 inches; 40 percent weak red (10R 4/4), 35 percent light gray (10YR 7/1), and 25 percent brownish yellow (10YR 6/6) clay; massive; very firm; areas of light gray are iron depletions; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches

Content and size of rock fragments: 5 to 30 percent, mostly channers and flagstones, in the A and E horizons; 0 to 15 percent, mostly pebbles and channers, in the B and C horizons

Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas that have been limed

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 10YR, value of 5 or 6, and chroma of 2 to 4

Texture—flaggy sandy loam, flaggy loamy fine sand, or flaggy loamy sand

Bt horizon (upper part):

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 6 to 8
Texture—clay loam or clay
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, yellow, or brown

Bt horizon (lower part):

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 red, brown, gray, or yellow
Texture—clay loam, clay, or silty clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

BC horizon (where present):

Color—hue of 5YR to 10YR, value of 5 to 8, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of red, brown, gray, or yellow
Texture—clay loam, clay, or silty clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

C horizon:

Color—hue of 5YR to 10YR, value of 5 to 8, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of red, brown, gray, or yellow
Texture—clay loam, sandy clay loam, clay, or silty clay; thin strata of finer or coarser textured material in most pedons
Redoximorphic features—masses of iron accumulation in shades of red, brown, or yellow
Other—thin, discontinuous layers of ironstone in many pedons

McCrory Series

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Slow
Parent material: Loamy sediments that contain appreciable amounts of exchangeable sodium
Landform: Low stream terraces
Landform position: Flat or slightly concave slopes
Slope: 0 to 1 percent
Taxonomic class: Fine-loamy, mixed, active, thermic Albic Glossic Natraqualfs

Commonly Associated Soils

Deerford, Izagora, and Jedburg soils are commonly associated with the McCrory series.

- The somewhat poorly drained Deerford soils are in slightly higher, more convex positions than those of the McCrory soils.
- The moderately well drained Izagora and somewhat poorly drained Jedburg soils are in slightly higher positions than those of the McCrory soils and do not have a natric horizon.

Typical Pedon

Typical pedon of McCrory silt loam, in an area of McCrory-Deerford complex, 0 to 2 percent slopes, occasionally flooded; 2.5 miles south of Morvin; 1,000 feet north and 1,700 feet east of the southwest corner of sec. 4, T. 11 N., R. 1 E.; USGS Morvin topographic quadrangle; lat. 31 degrees 56 minutes 50 seconds N. and long. 87 degrees 58 minutes 53 seconds W.

Ap—0 to 4 inches; brown (10YR 4/3) silt loam; weak fine granular structure; very friable; many fine and very fine roots; common fine distinct yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; abrupt smooth boundary.

E—4 to 9 inches; light brownish gray (10YR 6/2) silt loam; weak coarse subangular blocky structure; friable; common very fine, fine, and medium roots; few root channels filled with brown (10YR 4/3) loam; many medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary.

BE—9 to 14 inches; light brownish gray (10YR 6/2) silt loam; weak coarse subangular blocky structure; friable; few medium and coarse roots; few fine flakes of mica; few root channels filled with grayish brown (10YR 5/2) loam; many fine and medium distinct yellowish brown (10YR 5/4 and 5/6) and dark yellowish brown (10YR 4/6) masses of iron accumulation; strongly acid; clear wavy boundary.

Btn—14 to 23 inches; loam, yellowish brown (10YR 5/6) interior and light brownish gray (10YR 6/2) exterior; moderate coarse prismatic structure; firm; common very fine, fine, and medium roots; few fine flakes of mica; common distinct dark gray (10YR 4/1) clay films on faces of peds; discontinuous, thin (1 to 5 millimeters) seams of pale brown (10YR 6/3) very fine sandy loam between prisms; thin patchy black stains of iron and manganese oxides on faces of some peds; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation on faces of peds; few fine prominent yellowish red (5YR 4/6) masses of iron accumulation lining pores and root channels; common fine and medium distinct gray (10YR 6/1) iron depletions; slightly alkaline; clear wavy boundary.

Btng1—23 to 35 inches; gray (10YR 5/1) loam; moderate coarse prismatic structure; firm; few fine flakes of mica; common distinct dark gray (10YR 4/1) clay films on faces of peds; thin patchy black stains of iron and manganese oxides on faces of some peds; common medium distinct yellowish brown (10YR 5/4 and 5/6) and dark yellowish brown (10YR 4/6) masses of iron accumulation; strongly alkaline; gradual wavy boundary.

Btng2—35 to 47 inches; light brownish gray (10YR 6/2) loam; weak very coarse prismatic structure; firm; few fine flakes of mica; common distinct dark gray (10YR 4/1) clay films on faces of peds; thin patchy black stains of iron and manganese oxides on faces of some peds; common medium distinct dark yellowish brown (10YR 4/6) and few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; strongly alkaline; clear wavy boundary.

Btng3—47 to 58 inches; grayish brown (2.5Y 5/2) fine sandy loam; weak coarse prismatic structure; firm; many fine flakes of mica; few distinct dark gray (10YR 4/1) clay films on faces of peds; many medium prominent strong brown (7.5YR 5/6) and yellowish brown (10YR 5/6) masses of iron accumulation; very strongly alkaline; gradual wavy boundary.

Cg—58 to 72 inches; grayish brown (2.5Y 5/2) fine sandy loam; massive; friable; many fine flakes of mica; many medium prominent strong brown (7.5YR 5/6) and yellowish brown (10YR 5/6) masses of iron accumulation; very strongly alkaline.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches

A or Ap horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3

Reaction—extremely acid to strongly acid, except in areas where lime has been applied

E and BE horizons (where present):
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2
Texture—fine sandy loam, loam, or silt loam
Redoximorphic features—masses of iron accumulation in shades of brown
Reaction—very strongly acid to slightly acid

Btn horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 6
Texture—loam or sandy clay loam
Redoximorphic features—iron or clay 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

Btng horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2
Texture—loam, fine sandy loam, or sandy clay loam
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red
Reaction—neutral to strongly alkaline in the upper part and slightly alkaline to very strongly alkaline in the lower part

Cg horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2
Texture—fine sandy loam or very fine sandy loam
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red
Reaction—slightly alkaline to very strongly alkaline

Mooreville Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Moderate
Parent material: Loamy alluvium
Landform: Flood plains
Landform position: Convex slopes on the higher parts of low ridges and natural levees
Slope: 0 to 2 percent
Taxonomic class: Fine-loamy, siliceous, active, thermic Fluvaquentic Dystrudepts

Commonly Associated Soils

Riverview, Una, and Urbo soils are commonly associated with the Mooreville series.

- The well drained Riverview soils are in the slightly higher, more convex positions on the natural levees.
- The clayey, poorly drained Una soils are in swales and sloughs.
- The clayey, somewhat poorly drained Urbo soils are in the slightly lower positions on the low ridges.

Typical Pedon

Typical pedon of Mooreville clay loam, in an area of Urbo-Mooreville-Una complex, gently undulating, frequently flooded; 1.25 miles southwest of the headquarters of the Fred T. Stimpson State Game Sanctuary; 1,000 feet south and 800 feet west of the northeast corner of sec. 29, T. 5 N., R. 2 E.; USGS Prestwick topographic quadrangle; lat. 31 degrees 22 minutes 36 seconds N. and long. 87 degrees 53 minutes 24 seconds W.

Ap1—0 to 2 inches; very dark grayish brown (10YR 3/2) clay loam; moderate medium granular structure; friable; common fine and medium roots; strongly acid; abrupt smooth boundary.

Ap2—2 to 5 inches; brown (10YR 4/3) clay loam; weak medium subangular blocky structure; firm; few fine and medium roots; common fine distinct strong brown (7.5YR 4/6) masses of iron accumulation; strongly acid; clear smooth boundary.

Bw1—5 to 20 inches; brown (10YR 4/3) silty clay loam; moderate medium subangular blocky structure; firm; few fine roots; few fine faint grayish brown (10YR 5/2) iron depletions; common fine distinct strong brown (7.5YR 4/6) masses of iron accumulation; strongly acid; clear smooth boundary.

Bw2—20 to 39 inches; dark yellowish brown (10YR 4/4) clay loam; moderate medium subangular blocky structure; firm; common coarse distinct grayish brown (10YR 5/2) iron depletions; common fine distinct strong brown (7.5YR 4/6) and few coarse prominent dark reddish brown (5YR 3/4) masses of iron accumulation; strongly acid; gradual smooth boundary.

Bw3—39 to 57 inches; dark yellowish brown (10YR 4/4) loam; weak medium subangular blocky structure; friable; few fine soft masses of iron and manganese oxides; common coarse distinct grayish brown (10YR 5/2) iron depletions; common coarse distinct strong brown (7.5YR 4/6) masses of iron accumulation; strongly acid; gradual smooth boundary.

Bw4—57 to 69 inches; brown (10YR 4/3) loam; weak coarse subangular blocky structure; friable; few fine soft masses of iron and manganese oxides; common coarse distinct grayish brown (10YR 5/2) iron depletions; common fine distinct strong brown (7.5YR 4/6) and few coarse prominent dark reddish brown (5YR 3/4) masses of iron accumulation; strongly acid; clear smooth boundary.

C—69 to 80 inches; yellowish brown (10YR 5/4) sandy loam; massive; thinly bedded; very friable; common medium distinct grayish brown (10YR 5/2) iron depletions; common medium distinct strong brown (7.5YR 4/6) and few coarse prominent dark reddish brown (5YR 3/4) masses of iron accumulation; strongly acid.

Range in Characteristics

Thickness of the solum: More than 40 inches

Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:

Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

Bw horizon:

Color—hue of 10YR, value of 4 or 5, and chroma of 3 to 6

Texture—clay loam, silty clay loam, sandy clay loam, or loam

Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red or brown

C horizon:

Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 6; or no dominant matrix color and multicolored in shades of gray and brown

Texture—sandy loam, loam, sandy clay loam, or clay loam; thin strata 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 red or brown

Myatt Series

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Moderately slow
Parent material: Loamy alluvial sediments
Landform: Low stream terraces
Landform position: Flat and slightly concave slopes
Slope: 0 to 1 percent
Taxonomic class: Fine-loamy, siliceous, active, thermic Typic Endoaquults

Commonly Associated Soils

Bibb, Cahaba, Escambia, Izagora, and Jedburg soils are commonly associated with the Myatt series.

- The poorly drained Bibb soils are on flood plains.
- The well drained Cahaba and moderately well drained Izagora soils are in higher, more convex positions than those of the Myatt soils.
- The somewhat poorly drained Escambia and Jedburg soils are in slightly higher positions than those of the Myatt soils.

Typical Pedon

Typical pedon of Myatt fine sandy loam, 0 to 1 percent slopes, occasionally flooded; about 0.5 mile south of Thomasville; about 300 feet north and 700 feet east of the southwest corner of sec. 2, T. 10 N., R. 3 E.; USGS Fulton East topographic quadrangle; lat. 31 degrees 51 minutes 42 seconds N. and long. 87 degrees 44 minutes 55 seconds W.

Ap—0 to 3 inch; very dark grayish brown (10YR 3/2) fine sandy loam; moderate fine granular structure; very friable; common fine, medium, and coarse roots; very strongly acid; abrupt smooth boundary.

Eg1—3 to 7 inches; grayish brown (10YR 5/2) loam; weak medium subangular blocky structure; very friable; few fine and medium roots; common medium prominent brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Eg2—7 to 14 inches; light brownish gray (10YR 6/2) loam; weak coarse subangular blocky structure; very friable; few fine roots; many medium and coarse distinct brownish yellow (10YR 6/6) and yellowish brown (10YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btg1—14 to 28 inches; light brownish gray (10YR 6/2) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; many coarse distinct brownish yellow (10YR 6/6) and yellowish brown (10YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btg2—28 to 37 inches; light brownish gray (10YR 6/2) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; common coarse prominent olive yellow (2.5Y 6/6) and few medium and coarse prominent strong brown (7.5YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btg3—37 to 55 inches; light brownish gray (10YR 6/2) loam; weak coarse subangular blocky structure; friable; few faint clay films on faces of peds; common medium distinct yellowish brown (10YR 5/6) and few fine prominent red (2.5YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Cg—55 to 80 inches; light brownish gray (10YR 6/2) sandy loam; massive; very friable; many coarse distinct brownish yellow (10YR 6/6) and yellowish brown (10YR 5/8) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 or 2

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 loam
Redoximorphic features—masses of iron accumulation in shades of yellow or brown

Btg horizon:
Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 or 2
Texture—loam, sandy clay loam, or clay loam
Redoximorphic features—masses of iron accumulation in shades of red, yellow, or brown

Cg horizon:
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, yellow, and red
Texture—fine sandy loam, sandy loam, sandy clay loam, or clay loam
Redoximorphic features—masses of iron accumulation in shades of brown, red, or yellow

Ochlockonee Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy alluvium
Landform: Flood plains
Landform position: High parts of natural levees
Slope: 0 to 2 percent
Taxonomic class: Coarse-loamy, siliceous, active, acid, thermic Typic Udifluvents

Commonly Associated Soils

Bibb, Iuka, and Mantachie soils are commonly associated with the Ochlockonee series.

- The poorly drained Bibb and somewhat poorly drained Mantachie soils are in the lower, more concave positions on the flood plains.
- The moderately well drained Iuka soils are on natural levees in slightly lower positions than those of the Ochlockonee soils.

Typical Pedon

Typical pedon of Ochlockonee sandy loam, 0 to 2 percent slopes, frequently flooded; 1.4 miles south of Bashi; 1,500 feet south and 250 feet west of the northeast corner of sec. 4, T. 11 N., R. 2 E.; USGS Bashi topographic quadrangle; lat. 31 degrees 57 minutes 25 seconds N. and long. 87 degrees 52 minutes 15 seconds W.

Ap—0 to 5 inches; yellowish brown (10YR 5/4) sandy loam; weak fine granular structure; very friable; many fine roots; strongly acid; clear smooth boundary.

C—5 to 34 inches; dark yellowish brown (10YR 4/4) loam; massive; thinly bedded; very friable; few fine roots; very strongly acid; clear smooth boundary.
Ab—34 to 40 inches; dark brown (10YR 3/3) loam; massive; very friable; few fine roots; very strongly acid; abrupt wavy boundary.
C´—40 to 80 inches; dark yellowish brown (10YR 4/4) sandy loam; massive; thinly bedded; very friable; few thin strata of brown (10YR 5/3) loamy sand; very strongly acid.

Range in Characteristics

Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Ab horizon (where present):
Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3
Texture—loam, sandy loam, fine sandy loam, or silt loam

C and C´ horizons:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 8
Texture—loamy sand, sandy loam, fine sandy loam, loam, or silt loam; commonly with thin strata of finer or coarser textured material
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown or yellow below a depth of 30 inches

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: 1 to 5 percent
Taxonomic class: Loamy, siliceous, semiactive, thermic Aquic Arenic Paleudults

Commonly Associated Soils

Bibb, Harleston, Pelham, and Wadley soils are commonly associated with the Ocilla series.

- The poorly drained Bibb soils are in low positions on flood plains.
- The moderately well drained Harleston soils are on convex slopes at slightly higher elevations than the Ocilla soils.
- The poorly drained Pelham soils are in slightly lower, more concave positions than those of the Ocilla soils.
- The somewhat excessively drained Wadley soils are on side slopes at higher elevations than the Ocilla soils.

Typical Pedon

Typical pedon of Ocilla loamy fine sand, in an area of Ocilla-Pelham complex, gently undulating; about 2 miles southeast of McEntyre; about 100 feet south and 1,000 feet west of the northeast corner of sec. 2, T. 9 N., R. 1 E.; USGS McEntyre topographic quadrangle; lat. 31 degrees 47 minutes 10 seconds N. and long. 87 degrees 56 minutes 28 seconds W.

Ap—0 to 3 inches; dark grayish brown (10YR 4/2) loamy fine sand; weak fine granular structure; very friable; many fine and medium and few coarse roots; few fine soft masses of iron and manganese oxides; strongly acid; clear smooth boundary.
E—3 to 8 inches; light olive brown (2.5Y 5/3) loamy fine sand; weak coarse subangular blocky structure; very friable; common fine and very fine roots; few medium distinct dark grayish brown (10YR 4/2) organic stains on faces of peds; few fine soft masses of iron and manganese oxides; common medium distinct yellowish brown (10YR 5/4 and 5/6) masses of iron accumulation; common medium faint grayish brown (2.5Y 5/2) iron depletions; strongly acid; clear wavy boundary.
Eg1—8 to 14 inches; grayish brown (2.5Y 5/2) loamy fine sand; weak coarse subangular blocky structure; very friable; common fine and very fine roots; few fine soft masses of iron and manganese oxides; strongly acid; clear wavy boundary.
Eg2—14 to 23 inches; light brownish gray (2.5Y 6/2) loamy fine sand; weak coarse subangular blocky structure; very friable; few fine roots; few fine soft masses of iron and manganese oxides; common coarse faint light olive brown (2.5Y 5/3) masses of iron accumulation; strongly acid; clear smooth boundary.
EB—23 to 31 inches; light olive brown (2.5Y 5/3) loamy fine sand; weak coarse subangular blocky structure; very friable; few fine roots; few fine soft masses of iron and manganese oxides; many coarse faint grayish brown (2.5Y 5/2) iron depletions; common medium and coarse prominent yellowish brown (10YR 5/8) and olive yellow (2.5Y 6/6) and few fine prominent yellowish red (5YR 4/6) masses of iron accumulation; strongly acid; clear wavy boundary.
Bt1—31 to 52 inches; 65 percent yellowish brown (10YR 5/8) and 35 percent light brownish gray (10YR 6/2) sandy loam; moderate coarse subangular blocky structure; friable; few fine and medium roots; areas of light brownish gray are iron depletions; strongly acid; gradual wavy boundary.
Bt2—52 to 80 inches; 50 percent brownish yellow (10YR 6/6), 30 percent yellowish brown (10YR 5/8), and 20 percent light brownish gray (10YR 6/2) sandy loam; weak coarse subangular blocky structure; friable; few thin streaks of uncoated sand; areas of light brownish gray are iron depletions; strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except in areas where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

E horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 3 or 4
Texture—loamy sand or loamy fine sand
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown or yellow

Eg horizon:
Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 or 2
Texture—sand, loamy sand, or loamy fine sand
Redoximorphic features—masses of iron accumulation in shades of brown or yellow

EB or BE horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 4
Texture—sandy loam, fine sandy loam, or loamy fine sand

Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of red, yellow, or brown

Bt horizon:

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of brown, red, yellow, and gray

Texture—sandy loam, fine sandy loam, or sandy clay loam

Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of red, yellow, or brown

Okeelala Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy and sandy marine sediments
Landform: Ridges and hillslopes
Landform position: Summits, nose slopes, backslopes, and footslopes
Slope: 2 to 60 percent
Taxonomic class: Fine-loamy, siliceous, semiactive, thermic Ultic Hapludalfs

Commonly Associated Soils

Brantley, Lorman, Toxey, and Wadley soils are commonly associated with the Okeelala series.

- The Brantley and Lorman soils are in positions similar to those of the Okeelala soils but have a clayey argillic horizon.
- The Toxey soils are commonly on side slopes and ridges at lower elevations than the Okeelala soils and are clayey in the upper part of the subsoil.
- The Wadley soils are on side slopes and ridges at higher elevations than the Okeelala soils and have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Okeelala fine sandy loam, in an area of Okeelala-Brantley complex, 15 to 35 percent slopes; about 2 miles south of Dickinson; 2,600 feet north and 2,600 feet east of the southwest corner of sec. 19, T. 9 N., R. 4 E.; USGS Whatley topographic quadrangle; lat. 31 degrees 42 minutes 41 seconds N. and long. 87 degrees 42 minutes 34 seconds W.

A—0 to 3 inches; brown (7.5YR 4/3) fine sandy loam; weak fine granular structure; very friable; common fine, medium, and coarse roots; strongly acid; clear smooth boundary.

E—3 to 13 inches; brown (7.5YR 5/4) loamy fine sand; weak coarse subangular blocky structure; very friable; many very fine and fine and common medium and coarse roots; strongly acid; clear wavy boundary.

BE—13 to 18 inches; strong brown (7.5YR 5/6) sandy loam; weak medium subangular blocky structure; very friable; few fine and medium roots; strongly acid; clear wavy boundary.

Bt1—18 to 26 inches; red (2.5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common faint clay films on faces of peds; strongly acid; gradual wavy boundary.

Bt2—26 to 33 inches; red (2.5YR 4/6) sandy clay loam; moderate coarse subangular blocky structure; friable; few fine roots; common faint clay films on faces of peds; strongly acid; gradual wavy boundary.

Bt3—33 to 45 inches; yellowish red (5YR 4/6) sandy loam; weak coarse subangular blocky structure; very friable; few fine roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
BC—45 to 58 inches; yellowish red (5YR 5/8) sandy loam; weak very coarse subangular blocky structure; very friable; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
C1—58 to 65 inches; yellowish red (5YR 4/8) loamy sand; massive; very friable; few thin strata of reddish yellow (7.5YR 6/6) sand; very strongly acid; gradual wavy boundary.
C2—65 to 80 inches; strong brown (7.5YR 4/8) loamy sand; massive; very friable; common medium distinct reddish yellow (7.5YR 6/6) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4

E horizon:
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 2 to 4
Texture—fine sandy loam, sandy loam, or loamy fine sand

BE horizon (where present):
Color—hue of 5YR or 7.5YR, value of 4 or 5, and chroma of 6 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 4 to 8
Texture—clay loam, sandy clay loam, loam, or sandy loam

Bt horizon (lower part):
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8
Texture—sandy clay loam, loam, or sandy loam

BC horizon (where present):
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8
Texture—fine sandy loam or sandy loam

C horizon:
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8
Texture—loamy sand, sandy loam, or fine sandy loam; thin strata of finer or coarser textured material in most pedons

Olla Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Parent material: Loamy sediments
Landform: Ridges
Landform position: Summits and shoulder slopes
Slope: 2 to 8 percent
Taxonomic class: Fine-loamy, siliceous, active, thermic Typic Hapludults

Commonly Associated Soils

Boykin, Maubila, Smithdale, and Wadley soils are commonly associated with the Olla series.

- The Boykin and Wadley soils are on ridges and side slopes at slightly higher elevations than the Olla soils and have a thick, sandy epipedon.
- The Maubila soils are in positions similar to those of the Olla soils but have a clayey argillic horizon.
- The Smithdale soils are on side slopes at higher or lower elevations than the Olla soils and have reddish colors in the subsoil.

Typical Pedon

Typical pedon of Olla loamy fine sand, in an area of Olla-Maubila complex, 2 to 8 percent slopes; about 1 mile northwest of Carlton; 100 feet north and 1,660 feet west of the southeast corner of sec. 34, T. 5 N., R. 2 E.; USGS Carlton topographic quadrangle; lat. 31 degrees 21 minutes 27 seconds N. and long. 87 degrees 51 minutes 35 seconds W.

A—0 to 4 inches; brown (10YR 4/3) loamy fine sand; weak fine granular structure; very friable; common fine and medium roots; extremely acid; clear wavy boundary.

E—4 to 13 inches; brownish yellow (10YR 6/6) loamy fine sand; weak fine granular structure; very friable; common fine and medium roots; common medium distinct brown (10YR 4/3) streaks of loamy fine sand; about 10 percent ironstone channers; abrupt smooth boundary; very strongly acid.

Bt1—13 to 22 inches; yellowish brown 10YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable; common fine and medium roots; few faint clay films on faces of peds; very strongly acid; clear wavy boundary.

Bt2—22 to 37 inches; yellowish brown (10YR 5/8) fine sandy loam; weak medium subangular blocky structure; friable; few faint clay films on faces of peds; about 3 percent nodular plinthite; very strongly acid; gradual wavy boundary.

C—37 to 80 inches; brownish yellow (10YR 6/8) sandy clay loam; massive; firm; common thin strata of sandy clay; common medium prominent yellowish red (5YR 4/8) masses of iron accumulation; few fine prominent light gray (10YR 7/1) and very pale brown (10YR 7/3) iron depletions; very 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 that have been limed

A or Ap horizon:

Color—hue of 10YR, value of 3 or 4, 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 fine sand 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—clay loam, sandy clay loam, or fine sandy loam

Redoximorphic features (where present)—iron or clay depletions in shades of brown and masses of iron accumulation in shades of red or brown

C horizon:

Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 4 to 8

Texture—fine sandy loam, sandy clay loam, or loam or stratified with these textures; strata of finer or coarser textured material in most pedons
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, yellow, or brown

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 stream terraces
Landform position: Flat or concave slopes
Slope: 0 to 2 percent
Taxonomic class: Loamy, siliceous, subactive, thermic Arenic Paleaquults

Commonly Associated Soils

Bibb, Harleston, Ocilla, and Wadley soils are commonly associated with the Pelham series.

- The poorly drained Bibb soils are in low positions on flood plains.
- The moderately well drained, loamy Harleston soils are on convex slopes at slightly higher elevations than the Pelham soils.
- The somewhat poorly drained Ocilla soils are in slightly higher, more convex positions than those of the Pelham soils.
- The somewhat excessively drained Wadley soils are on side slopes at higher elevations than the Pelham soils.

Typical Pedon

Typical pedon of Pelham loamy fine sand, in an area of Ocilla-Pelham complex, gently undulating; about 2 miles southeast of McEntyre; 1,000 feet south and 2,200 feet west of the northeast corner of sec. 2, T. 9 N., R. 1 E.; USGS McEntyre topographic quadrangle; lat. 31 degrees 46 minutes 59 seconds N. and long. 87 degrees 57 minutes 45 seconds W.

Ap1—0 to 3 inches; dark grayish brown (10YR 4/2) loamy fine sand; weak medium granular structure; very friable; many fine and medium and few coarse roots; strongly acid; clear wavy boundary.
Ap2—3 to 7 inches; dark grayish brown (10YR 4/2) loamy fine sand; weak medium granular structure; very friable; common fine and medium roots; common fine soft masses of iron and manganese oxides; common medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; common medium faint light brownish gray (10YR 6/2) iron depletions; very strongly acid; clear wavy boundary.
Eg1—7 to 15 inches; light gray (10YR 7/1) loamy fine sand; weak coarse subangular blocky structure; very friable; few fine and medium roots; few fine soft masses of iron and manganese oxides; common medium distinct brown (10YR 4/3) and few medium prominent yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.
Eg2—15 to 32 inches; light brownish gray (10YR 6/2) loamy fine sand; weak coarse subangular blocky structure; very friable; few fine and medium roots; few fine soft masses of iron and manganese oxides; common medium distinct brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.
Btg1—32 to 45 inches; light brownish gray (10YR 6/2) fine sandy loam; weak coarse subangular blocky structure; very friable; few fine, medium, and coarse roots;

common faint clay films on faces of peds; common medium prominent yellowish red (5YR 5/8) and brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg2—45 to 53 inches; gray (10YR 5/1) sandy loam; weak medium subangular blocky structure; very friable; few fine roots; common faint clay films on faces of peds; common medium prominent yellowish brown (10YR 5/6) and reddish yellow (7.5YR 6/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btg3—53 to 80 inches; gray (2.5Y 5/1) sandy clay loam; weak coarse subangular blocky structure; friable; common faint clay films on faces of peds; common medium prominent brownish yellow (10YR 6/8) and strong brown (7.5YR 5/8) masses of iron accumulation; strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except 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 or 2

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, or sandy clay loam
Redoximorphic features—masses of iron accumulation in shades of red, yellow, or brown

Prim Series

Depth class: Shallow
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy residuum weathered from interbedded limestone and chalk
Landform: Ridges, knolls, and hillslopes
Landform position: Summits, shoulder slopes, benches, and the upper parts of side slopes
Slope: 2 to 60 percent
Taxonomic class: Loamy-skeletal, carbonatic, thermic, shallow Typic Haprendolls

Commonly Associated Soils

Brantley, Lorman, Okeelala, Suggsville, Toxey, and Watsonia soils and Eutrudepts are commonly associated with the Prim series.

- The very deep Brantley, Lorman, and Toxey soils are on ridges and side slopes at lower elevations than the Prim soils and have a clayey subsoil.
- The very deep Okeelala soils are on side slopes at lower elevations than the Prim soils and have a loamy subsoil.
- The deep Suggsville soils are in positions similar to those of the Prim soils but are clayey throughout the profile.
- The Watsonia soils are in positions similar to those of the Prim soils but have a clayey subsoil.

- The Eutrudepts are in positions similar to those of the Prim soils but have a loamy to clayey subsoil and are shallow to deep to bedrock.

Typical Pedon

Typical pedon of Prim very cobbly clay loam, in an area of Prim-Suggsville-Watsonia complex, 10 to 40 percent slopes; about 3.5 miles northwest of Barlow Bend; 1,800 feet north and 150 feet west of the southeast corner of sec. 10, T. 6 N., R. 4 E.; USGS Gainestown topographic quadrangle; lat. 31 degrees 30 minutes 4 seconds N. and long. 87 degrees 39 minutes 5 seconds W.

A—0 to 7 inches; black (10YR 2/1) very cobbly clay loam; moderate medium granular structure; friable; many fine roots; about 40 percent chalk channers and limestone cobbles; strongly effervescent; slightly alkaline; clear smooth boundary.

C—7 to 15 inches; olive gray (5Y 5/2) extremely cobbly sandy loam; massive; very friable; few fine and medium roots; few fine concretions of calcium carbonate; about 65 percent chalk channers and limestone cobbles; strongly effervescent; moderately alkaline; gradual wavy boundary.

Cr—15 to 80 inches; interbedded light gray (5Y 7/2) chalk and limestone; massive; extremely firm; strongly effervescent; moderately alkaline.

Range in Characteristics

Depth to bedrock: 10 to 20 inches
Reaction: Slightly alkaline or moderately alkaline throughout the profile

A horizon:
Color—hue of 10YR or 2.5Y, value of 2 or 3, and chroma of 1 to 3
Content and size of rock fragments—35 to 60 percent channers of chalk and cobbles of limestone

C horizon:
Color—hue of 10YR to 5Y, value of 5 or 6, and chroma of 1 to 3
Texture—extremely cobbly or very cobbly sandy loam, loam, or clay loam
Content and size of rock fragments—35 to 75 percent channers of chalk and cobbles of limestone

Cr horizon:
Type of bedrock—interbedded chalk, soft limestone, and indurated limestone; massive or platy rock structure
Other—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

Quitman Series

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Moderately slow
Parent material: Loamy alluvial sediments
Landform: Stream terraces
Landform position: Flat or slightly convex slopes on summits
Slope: 0 to 2 percent
Taxonomic class: Fine-loamy, siliceous, semiactive, thermic Aquic Paleudults

Commonly Associated Soils

Daleville and Savannah soils are commonly associated with the Quitman series.

- The poorly drained Daleville soils are in slightly lower, more concave positions than those of the Quitman soils.

- The moderately well drained Savannah soils are in higher, more convex positions than those of the Quitman soils.

Typical Pedon

Typical pedon of Quitman fine sandy loam, in an area of Daleville-Quitman complex, 0 to 2 percent slopes; about 4 miles west of Bashi; 600 feet south and 2,550 feet east of the northwest corner of sec. 36, T. 12 N., R. 1 E.; USGS Morvin topographic quadrangle; lat. 31 degrees 57 minutes 58 seconds N. and long. 87 degrees 55 minutes 48 seconds W.

Ap1—0 to 2 inches; brown (10YR 4/3) fine sandy loam; weak medium subangular blocky structure; very friable; many fine and medium roots; few fine soft masses of iron and manganese oxides; few medium distinct yellowish brown (10YR 5/8) masses of iron accumulation; very strongly acid; clear smooth boundary.

Ap2—2 to 5 inches; light olive brown (2.5Y 5/3) fine sandy loam; weak medium subangular blocky structure; very friable; common fine and medium roots; few fine soft masses of iron and manganese oxides; very strongly acid; clear smooth boundary.

E—5 to 11 inches; light yellowish brown (2.5Y 6/3) fine sandy loam; weak coarse subangular blocky structure; very friable; common fine and medium roots; few fine soft masses of iron and manganese oxides; common medium distinct yellowish brown (10YR 5/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bt—11 to 17 inches; light olive brown (2.5Y 5/3) sandy clay loam; moderate medium subangular blocky structure; firm; few fine and medium roots; few faint clay films on faces of peds; few fine soft masses of iron and manganese oxides; common fine and medium prominent reddish yellow (7.5YR 6/8) and yellowish red (5YR 5/8) masses of iron accumulation; common medium and coarse faint light brownish gray (2.5Y 6/2) iron depletions; very strongly acid; clear wavy boundary.

Btxg1—17 to 22 inches; grayish brown (10YR 5/2) sandy clay loam; weak coarse prisms parting to moderate medium subangular blocky structure; firm; brittle in about 10 percent of the matrix; few fine roots; few faint clay films on faces of peds; few fine concretions of iron and manganese oxides; common medium prominent strong brown (7.5YR 5/6) and yellowish red (5YR 5/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btxg2—22 to 39 inches; light brownish gray (2.5Y 6/2) clay loam; weak coarse prisms parting to moderate medium subangular blocky structure; firm; brittle in about 10 percent of the matrix; few faint clay films on faces of peds; common fine concretions of iron and manganese oxides; common medium prominent brownish yellow (10YR 6/8) and few medium prominent red (2.5YR 5/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btxg3—39 to 50 inches; gray (10YR 6/1) clay loam; moderate medium subangular blocky structure; firm; brittle in about 10 percent of the matrix; few faint clay films on faces of peds; common fine and medium prominent brownish yellow (10YR 6/8) and strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btxg4—50 to 64 inches; gray (2.5Y 6/1) clay loam; moderate coarse subangular blocky structure; firm; brittle in about 10 percent of the matrix; few faint clay films on faces of peds; common medium prominent strong brown (7.5YR 5/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

B´t—64 to 80 inches; yellowish brown (10YR 5/6) sandy clay loam; weak coarse subangular blocky structure; firm; few faint clay films on faces of peds; common medium prominent light gray (2.5Y 7/1) iron depletions; 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 that have been limed

A or Ap horizon:
Color—hue of 10YR or 2.5Y, 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—loam, fine sandy loam, or very fine sandy loam
Redoximorphic features (where present)—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown or yellow

Bt, Btx, or B´t (where present) horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 6; or no dominant matrix color and multicolored in shades of brown, yellow, and gray
Texture—loam, clay loam, or sandy clay loam
Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

Btxg horizon (where present):
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—loam, sandy clay loam, or clay loam
Redoximorphic features—masses of iron accumulation in shades of red, brown, or yellow

Rayburn Series

Depth class: Deep
Drainage class: Moderately well drained
Permeability: Very slow
Parent material: Clayey residuum weathered from siltstone or claystone
Landform: Hillslopes
Landform position: Side slopes and footslopes
Slope: 5 to 15 percent
Taxonomic class: Fine, smectitic, thermic Vertic Hapludalfs

Commonly Associated Soils

Arundel, Cantuche, Luverne, and Smithdale soils are commonly associated with the Rayburn series.

- The moderately deep Arundel soils are on side slopes and ridges at higher elevations than the Rayburn soils.
- The shallow Cantuche soils are on ridges, benches, and side slopes at higher elevations than the Rayburn soils.
- The very deep Luverne soils are in positions similar to those of the Rayburn soils.
- The very deep Smithdale soils are in positions similar to those of the Rayburn soils but are fine-loamy.

Typical Pedon

Typical pedon of Rayburn silt loam, 5 to 15 percent slopes; about 3.5 miles northwest of Chance; 250 feet south and 200 feet west of the northeast corner of sec. 4, T. 9 N., R. 5 E.; USGS Lower Peach Tree topographic quadrangle; lat. 31 degrees 47 minutes 2 seconds N. and long. 87 degrees 33 minutes 40 seconds W.

A—0 to 5 inches; dark brown (7.5YR 3/2) silt loam; moderate fine subangular blocky structure; friable; common fine, medium, and coarse roots; strongly acid; clear wavy boundary.

B/A—5 to 8 inches; 70 percent brown (7.5YR 5/4) loam (B); moderate medium subangular blocky structure; friable; 30 percent brown (7.5YR 4/3) silt loam (A); weak medium subangular blocky structure; friable; common fine, medium, and coarse roots; very strongly acid; clear wavy boundary.

Bt1—8 to 16 inches; red (2.5YR 4/6) clay; weak coarse prisms parting to 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; clear wavy boundary.

Bt2—16 to 20 inches; red (2.5YR 4/6) clay; strong medium angular blocky structure parting to strong fine angular blocky; firm; common fine and medium roots; few faint clay films on faces of peds; many pressure faces; common medium distinct light olive brown (2.5Y 5/3) iron depletions; few fine and medium faint red (2.5YR 4/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btss—20 to 26 inches; yellowish red (5YR 4/6) clay; moderate coarse angular blocky structure parting to strong fine angular blocky; firm; few very fine, fine, and medium roots; few faint clay films on faces of peds; many pressure faces; few intersecting slickensides that have polished and striated surfaces; many medium distinct grayish brown (2.5Y 5/2) iron depletions; common coarse prominent dark red (2.5YR 3/6) and yellowish brown (10YR 5/6 and 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btssg1—26 to 36 inches; grayish brown (2.5Y 5/2) silty clay; moderate medium angular blocky structure; firm; few very fine and fine roots; few faint clay films on faces of peds; many pressure faces; few intersecting slickensides that have polished and striated surfaces; common medium prominent red (2.5YR 4/8), yellowish red (5YR 5/8), and yellowish brown (10YR 5/8) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Btssg2—36 to 52 inches; light brownish gray (2.5Y 6/2) silty clay; moderate medium angular blocky structure; firm; few very fine and fine roots; few faint clay films on faces of peds; many pressure faces; common intersecting slickensides that have polished and grooved surfaces; common medium prominent red (2.5YR 4/8) and brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

C/B—52 to 59 inches; 60 percent grayish brown (2.5Y 5/2) weathered siltstone (C); weak medium platy rock structure; very firm; 40 percent light brownish gray (2.5Y 6/2) clay (B); massive; firm; few fine roots; many coarse prominent yellowish brown (10YR 5/8) and strong brown (7.5YR 4/6) masses of iron accumulation; very strongly acid; clear irregular boundary.

Cr—59 to 80 inches; grayish brown (2.5Y 5/2) weathered siltstone; thick medium platy rock structure; extremely firm; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Depth to bedrock: 40 to 60 inches
Content of rock fragments: Less than 15 percent throughout the profile
Reaction: Extremely acid to strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 or 3

Bt or Btss 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—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

Btssg horizon (where present):
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 red, brown, gray, and yellow
Texture—clay or silty clay
Redoximorphic features—iron depletions in shades of gray and masses of iron accumulation in shades of red, brown, or yellow

C horizon (where present):
Color—hue of 10YR to 5Y, value of 5 or 6, and chroma of 2 to 6; or no dominant matrix color and multicolored in shades of red, brown, gray, or yellow
Texture—clay loam, clay, or silty clay
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of red, brown, or yellow

Cr horizon:
Type of bedrock—weathered siltstone or claystone; massive or platy rock structure
Other—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

Riverview Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy alluvium
Landform: Flood plains
Landform position: High parts of natural levees
Slope: 0 to 2 percent
Taxonomic class: Fine-loamy, mixed, active, thermic Fluventic Dystrudepts

Commonly Associated Soils

Mooreville, Una, and Urbo soils are commonly associated with the Riverview series.

- The moderately well drained Mooreville soils are in slightly lower positions than those of the Riverview soil.
- The poorly drained, clayey Una soils are in backswamps.
- The somewhat poorly drained, clayey Urbo soils are on low parts of natural levees and in backswamps.

Typical Pedon

Typical pedon of Riverview fine sandy loam, 0 to 2 percent slopes, occasionally flooded; about 1 mile southwest of Campbell's Landing on the Tombigbee River; 2,640 feet south and 2,540 feet east of the northwest corner of sec. 4, T. 11 N., R. 1 W.; USGS Woods Bluff topographic quadrangle; lat. 31 degrees 57 minutes 19 seconds N. and long. 87 degrees 5 minutes 0 seconds W.

Ap1—0 to 2 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; very friable; many fine roots; strongly acid; abrupt smooth boundary.

Ap2—2 to 12 inches; brown (10YR 4/3) fine sandy loam; weak fine subangular blocky structure; very friable; many fine and medium roots; common fine flakes of mica; strongly acid; clear wavy boundary.
Bw1—12 to 19 inches; dark yellowish brown (10YR 3/4) loam; weak medium subangular blocky structure; friable; few fine and medium roots; common fine flakes of mica; strongly acid; gradual wavy boundary.
Bw2—19 to 44 inches; dark yellowish brown (10YR 4/4) loam; weak medium subangular blocky structure; friable; few fine and medium roots; common fine flakes of mica; few fine faint yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.
C1—44 to 62 inches; dark yellowish brown (10YR 4/4) sandy loam; massive; thinly bedded; very friable; common fine flakes of mica; common medium faint yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.
C2—62 to 69 inches; brown (10YR 4/3) loam; massive; thinly bedded; very friable; few fine flakes of mica; few fine concretions of iron and manganese oxides; common medium faint pale brown (10YR 6/3) iron depletions; very strongly acid; clear wavy boundary.
C3—69 to 80 inches; pale brown (10YR 6/3) fine sandy loam; massive; thinly bedded; very friable; few fine flakes of mica; few fine concretions of iron and manganese oxides; common medium faint light brownish gray (10YR 6/2) iron depletions; common medium distinct brown (7.5YR 4/4) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: 24 to 60 inches
Reaction: Very strongly acid to moderately acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Bw horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 4 to 6
Texture—sandy loam, fine sandy loam, loam, silt loam, sandy clay loam, or silty clay loam

C horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 6
Texture—fine sandy loam, sandy loam, loam, or loamy sand; thin strata 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 yellow or brown

Saffell Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Stratified, gravelly, loamy and sandy alluvial sediments
Landform: Hillslopes
Landform position: Shoulder slopes, nose slopes, and the upper parts of side slopes
Slope: 15 to 35 percent
Taxonomic class: Loamy-skeletal, siliceous, semiactive, thermic Typic Hapludults

Commonly Associated Soils

Flomaton, Smithdale, and Wadley soils are commonly associated with the Saffell series.

- The Flomaton soils are in positions similar to those of the Saffell soils but are sandy-skeletal.
- The Smithdale and Wadley soils are in positions similar to those of the Saffell soils. The Smithdale soils are fine-loamy. The Wadley soils have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Saffell gravelly sandy loam, in an area of Smithdale-Saffell complex, 15 to 45 percent slopes; about 0.75 mile north of Walker Springs; 600 feet south and 2,300 feet west of the northeast corner of sec. 29, T. 7 N., R. 3 E.; USGS Walker Springs topographic quadrangle; lat. 31 degrees 32 minutes 38 seconds N. and long. 87 degrees 47 minutes 35 seconds W.

A1—0 to 1 inch; very dark grayish brown (10YR 3/2) gravelly sandy loam; weak fine granular structure; very friable; many very fine and fine and common medium roots; about 15 percent fine, rounded pebbles of quartzite and chert; strongly acid; abrupt smooth boundary.

A2—1 to 7 inches; brown (7.5YR 4/3) gravelly sandy loam; weak fine subangular blocky structure; very friable; many very fine and fine and common medium roots; about 30 percent fine, rounded pebbles of quartzite and chert; very strongly acid; clear wavy boundary;

B/E—7 to 14 inches; 60 percent yellowish red (5YR 4/6) very gravelly sandy clay loam (B); weak fine subangular blocky structure; friable; few faint clay films on faces of peds; 40 percent brown (7.5YR 5/4) very gravelly sandy loam (E); weak coarse subangular blocky structure; very friable; common fine and medium roots; about 50 percent fine, rounded pebbles of quartzite and chert; very strongly acid; clear wavy boundary.

Bt1—14 to 29 inches; red (2.5YR 4/6) extremely gravelly sandy clay loam; weak medium subangular blocky structure; friable; few fine, medium, and coarse roots; few faint clay films on faces of peds; about 65 percent fine, rounded pebbles of quartzite and chert; very strongly acid; gradual wavy boundary.

Bt2—29 to 40 inches; red (2.5YR 4/6) very gravelly sandy loam; weak medium subangular blocky structure; very friable; few very fine and fine roots; few faint clay films on faces of peds and on some rock fragments; thin film of iron oxide on many rock fragments; about 50 percent rounded pebbles of quartzite and chert; very strongly acid; gradual wavy boundary.

Bt3—40 to 55 inches; dark red (2.5YR 3/6) very gravelly sandy loam; weak coarse subangular blocky structure; very friable; few faint clay films on faces of peds and on some rock fragments; thin film of iron oxide on many rock fragments; about 50 percent rounded pebbles of quartzite and chert; very strongly acid; gradual wavy boundary.

C—55 to 80 inches; red (2.5YR 4/8) very gravelly loamy sand; massive; very friable; thin film of iron oxide on many rock fragments; about 40 percent rounded pebbles of quartzite and chert; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches

Content and size of rock fragments: 15 to 35 percent rounded, mostly fine and medium pebbles of quartzite and chert in the surface and subsurface layers and 35 to 90 percent in the subsoil and substratum

Reaction: Very strongly acid or strongly acid throughout the profile

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 or 3

E horizon and E part of the B/E horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 or 4
Texture—gravelly or very gravelly sandy loam or loamy sand

Bt horizon and B part of the B/E horizon:
Color—hue of 2.5YR or 5YR, value of 3 to 5, and chroma of 6 to 8
Texture—very gravelly or extremely gravelly sandy clay loam or sandy loam

C horizon (where present):
Color—hue of 2.5YR or 5YR, value of 3 to 5, and chroma of 6 to 8
Texture—very gravelly or extremely gravelly loamy sand or sandy loam

Savannah Series

Depth class: Moderately deep to a fragipan
Drainage class: Moderately well drained
Permeability: Moderately slow
Parent material: Loamy alluvial sediments
Landform: High stream terraces
Landform position: Summits
Slope: 0 to 2 percent
Taxonomic class: Fine-loamy, siliceous, semiactive, thermic Typic Fragiudults

Commonly Associated Soils

Bama, Luverne, Malbis, and Smithdale soils are commonly associated with the Savannah series.

- The well drained Bama and Malbis soils are on terraces at higher elevations than the Savannah soils and do not have a fragipan.
- The Luverne and Smithdale soils are on side slopes at higher or lower elevations than the Savannah soils. The Luverne soils have a clayey argillic horizon and do not have a fragipan. The Smithdale soils do not have a fragipan.

Typical Pedon

Typical pedon of Savannah fine sandy loam, 0 to 2 percent slopes; about 4.5 miles west of Bashi; 1,500 feet north and 1,000 feet west of the southeast corner of sec. 35, T. 12 N., R. 1 E.; USGS Morvin topographic quadrangle; lat. 31 degrees 57 minutes 29 seconds N. and long. 87 degrees 56 minutes 29 seconds W.

Ap1—0 to 2 inches; very dark grayish brown (10YR 3/2) fine sandy loam; moderate fine granular structure; very friable; many fine and common medium and coarse roots; very strongly acid; abrupt smooth boundary.

Ap2—2 to 5 inches; dark grayish brown (10YR 4/2) fine sandy loam; moderate fine subangular blocky structure; very friable; common fine, medium, and coarse roots; very strongly acid; clear smooth boundary.

E—5 to 12 inches; light olive brown (2.5Y 5/3) fine sandy loam; weak coarse subangular blocky structure; very friable; common very fine and fine and few medium and coarse roots; very strongly acid; clear smooth boundary.

Bt—12 to 26 inches; yellowish brown (10YR 5/6) loam; moderate medium subangular blocky structure; friable; common fine and medium roots; few faint clay films on faces of peds; few streaks of light yellowish brown (2.5Y 6/4) fine sandy loam in the upper part; very strongly acid; clear wavy boundary.

Btx1—26 to 34 inches; light olive brown (2.5Y 5/6) sandy clay loam; weak very coarse prisms parting to moderate medium subangular blocky structure; firm; brittle in about 60 percent of the matrix; few very fine and fine roots in seams; few faint clay films on faces of peds; thin coatings of light yellowish brown (2.5Y 6/4) very fine sand and silt on faces of prisms; common medium prominent red (2.5YR 4/8) and yellowish red (5YR 5/8) masses of iron accumulation; few fine distinct light brownish gray (2.5Y 6/2) and light yellowish brown (10YR 6/4) iron depletions; very strongly acid; clear wavy boundary.

Btx2—34 to 42 inches; 65 percent light yellowish brown (2.5Y 6/4) and 35 percent yellowish brown (10YR 5/6) clay loam; moderate very coarse prisms parting to weak coarse subangular blocky structure; very firm; brittle in about 70 percent of the matrix; few fine roots in seams; few faint clay films on faces of peds; thin coatings of light brownish gray (2.5Y 6/2) very fine sand and silt on faces of prisms; few fine soft masses of iron and manganese oxides; many coarse distinct gray (2.5Y 6/1) iron depletions; many medium and coarse prominent red (2.5YR 4/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btx3—42 to 59 inches; yellowish brown (10YR 5/6) loam; weak very coarse prisms parting to weak coarse subangular blocky structure; very firm; brittle in about 70 percent of the matrix; few faint clay films on faces of peds; few fine soft masses of iron and manganese oxides; common medium distinct gray (2.5Y 6/1) and light brownish gray (2.5Y 6/2) iron depletions; few fine distinct strong brown (7.5YR 5/8) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btx4—59 to 71 inches; yellowish brown (10YR 5/8) clay loam; weak coarse prisms parting to weak medium subangular blocky structure; firm; brittle in about 40 percent of the matrix; few faint clay films on faces of peds; many medium and coarse distinct light brownish gray (10YR 6/2) iron depletions; many medium distinct brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

BC—71 to 80 inches; light gray (2.5Y 7/2) sandy clay loam; weak coarse subangular blocky structure; friable; many medium and coarse distinct yellowish brown (10YR 5/6) and common fine prominent strong brown (7.5YR 5/8) masses of iron accumulation; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to a fragipan: 20 to 40 inches
Reaction: Very strongly acid or strongly acid throughout the profile, except for the surface layer in areas that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 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 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—loam, sandy clay loam, or clay loam
Redoximorphic features (where present)—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of brown or red

Btx 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 gray, brown, and yellow
Texture—loam, sandy clay loam, or clay loam

Redoximorphic features—iron or clay 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 10YR or 2.5Y, value of 5 to 7, and chroma of 2 to 6; or no dominant matrix color and multicolored in shades of gray, brown, and yellow

Texture—loam, sandy clay loam, or clay loam

Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Smithdale Series

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Parent material: Loamy sediments
Landform: Ridges, knolls, and hillslopes
Landform position: Summits of narrow ridges; shoulder slopes; and backslopes
Slope: 2 to 35 percent
Taxonomic class: Fine-loamy, siliceous, subactive, thermic Typic Hapludults (fig. 16)

Commonly Associated Soils

Bama, Boykin, Flomaton, Luverne, Maubila, Saffell, and Wadley soils are commonly associated with the Smithdale series.

- The Bama soils are on summits of broad ridges and do not have a significant decrease in content of clay within a depth of 60 inches.
- The Boykin and Wadley soils are in positions similar to those of the Smithdale soils but have a thick, sandy epipedon.
- The Flomaton and Saffell soils are on side slopes and have more than 35 percent gravel throughout the profile.
- The Luverne soils are in positions similar to those of the Smithdale soils but have a clayey argillic horizon.
- The Maubila soils are on knolls and side slopes and have a clayey argillic horizon.

Typical Pedon

Typical pedon of Smithdale loamy sand, in an area of Smithdale-Boykin complex, 5 to 15 percent slopes; about 3.5 miles south of Nettleboro; 400 feet south and 2,100 feet east of the northwest corner of sec. 18, T. 9 N., R. 5 E.; USGS Lower Peach Tree topographic quadrangle; lat. 31 degrees 45 minutes 13 seconds N. and long. 87 degrees 36 minutes 44 seconds W.

A—0 to 3 inches; brown (10YR 4/3) loamy sand; weak fine granular structure; very friable; many fine and few medium roots; strongly acid; clear smooth boundary.

E—3 to 8 inches; yellowish brown (10YR 5/4) loamy sand; weak fine granular structure; very friable; common fine roots; very strongly acid; clear wavy boundary.

BE—8 to 13 inches; yellowish red (5YR 4/6) sandy loam; weak medium subangular blocky structure; very friable; few fine roots; common yellowish brown (10YR 5/4) streaks of loamy sand; very strongly acid; clear wavy boundary.

Bt1—13 to 42 inches; red (2.5YR 4/6) sandy clay loam; weak medium subangular blocky structure; friable; few fine roots; common faint clay films on faces of peds; few very fine flakes of mica; very strongly acid; gradual wavy boundary.

Bt2—42 to 80 inches; red (2.5YR 4/6) sandy loam; weak coarse subangular blocky

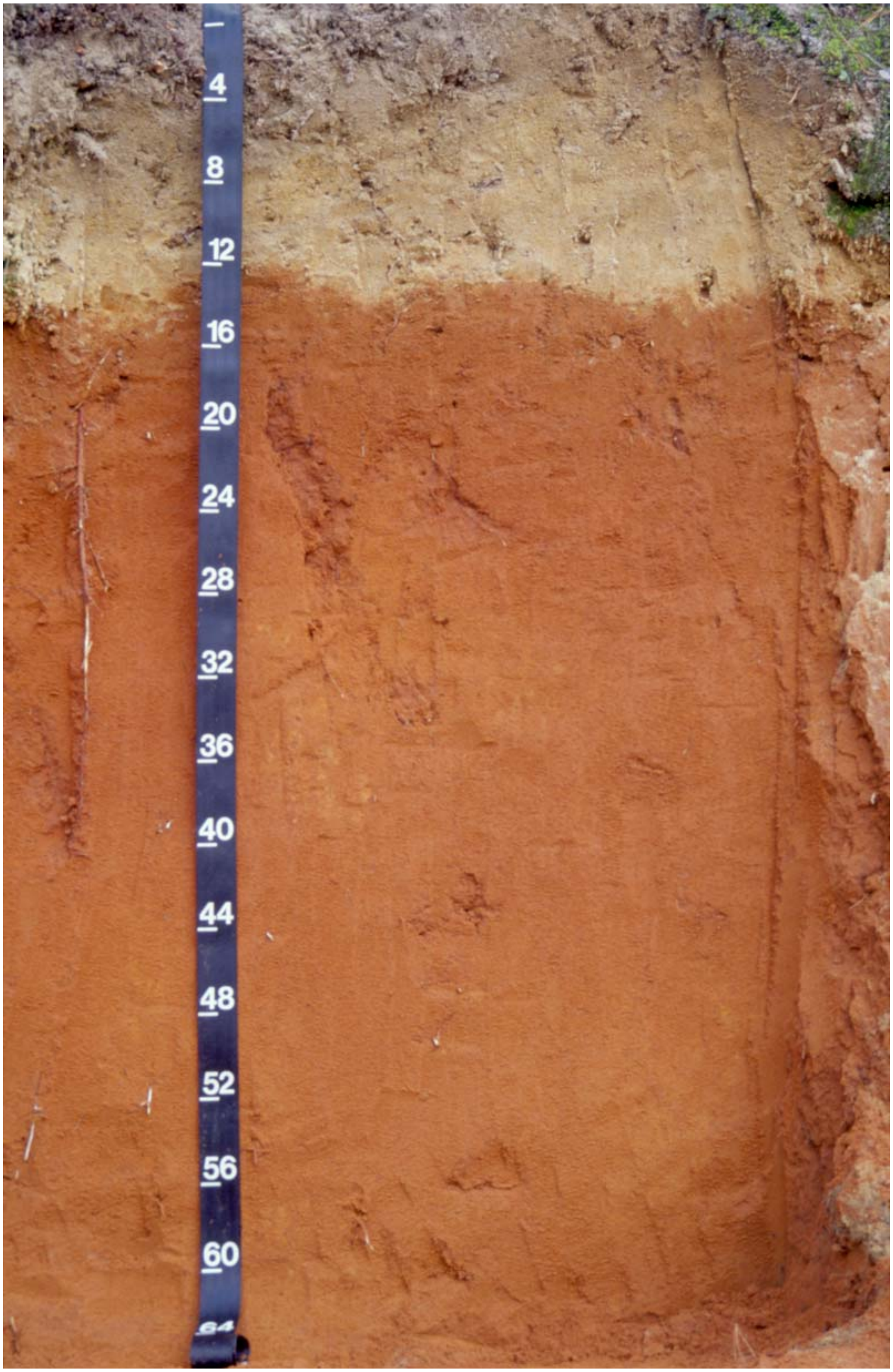

Figure 16.—A profile of a Smithdale soil. Smithdale soils formed in thick deposits of loamy sediments. They are very deep, are loamy, and have a reddish subsoil. They are on hillslopes and summits of narrow ridges.

structure; very friable; few faint clay films on faces of peds; common very fine flakes of mica; few fine, rounded pebbles of quartzite; 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 that have been limed

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 to 4
Texture—loamy sand or sandy loam

E horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4
Texture—loamy sand, sandy loam, or fine sandy loam

BE horizon (where present):
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 6
Texture—sandy loam or fine 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 or 5YR, value of 4 or 5, and chroma of 6 to 8
Texture—sandy loam, loam, or sandy clay loam

BC horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 to 7, and chroma of 4 to 8
Texture—loamy sand, sandy loam, or loam

C horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 to 7, and chroma of 3 to 8
Texture—loamy sand or sandy loam; commonly with strata of finer and/or coarser textured material

Suggsville Series

Depth class: Deep
Drainage class: Well drained
Permeability: Very slow
Parent material: Clayey sediments and underlying interbedded limestone and chalk
Landform: Ridges and hillslopes
Landform position: Summits, side slopes, and footslopes
Slope: 2 to 40 percent
Taxonomic class: Very-fine, smectitic, thermic Chromic Dystruderts

Commonly Associated Soils

Brantley, Lorman, Okeelala, Prim, Toxey, and Watsonia soils are commonly associated with the Suggsville series.

- The very deep Brantley and Okeelala soils are on ridges and side slopes at higher elevations than the Suggsville soils.
- The very deep Lorman and Toxey soils are on side slopes and ridges at lower elevations than the Suggsville soils.
- The shallow Prim and Watsonia soils are in positions similar to those of the Suggsville soils.

Typical Pedon

Typical pedon of Suggsville clay, in an area of Prim-Suggsville-Watsonia complex, 2 to 10 percent slopes; about 3 miles southwest of Suggsville; 2,000 feet north and 900 feet west of the southeast corner of sec. 30, T. 7 N., R. 4 E.; USGS Suggsville topographic quadrangle; lat. 31 degrees 32 minutes 42 seconds N. and long. 87 degrees 42 minutes 14 seconds W.

A—0 to 1 inch; very dark brown (10YR 2/2) clay; weak fine subangular blocky structure; firm; many very fine and fine and few medium and coarse roots; very strongly acid; clear wavy boundary.

BA—1 to 4 inches; 60 percent brown (7.5YR 4/3) and 40 percent reddish brown (5YR 4/4) clay; coarse clods parting to moderate medium subangular blocky structure; very firm; common very fine, fine, medium, and coarse roots; very strongly acid; clear wavy boundary.

Bt—4 to 11 inches; yellowish red (5YR 4/6) clay; moderate coarse angular blocky structure parting to strong fine angular blocky; very firm; common fine, medium, and coarse roots; few faint clay films on faces of peds; common pressure faces; very strongly acid; clear wavy boundary.

Btss1—11 to 21 inches; red (2.5YR 4/6) clay; moderate coarse angular blocky structure parting to strong fine angular blocky; very firm; few fine, medium, and coarse roots; few faint clay films on faces of peds; many pressure faces; common large intersecting slickensides that have distinct polished and slightly grooved surfaces; few fine, rounded pebbles of quartzite; very strongly acid; clear wavy boundary.

Btss2—21 to 26 inches; 60 percent strong brown (7.5YR 5/8) and 40 percent yellowish red (5YR 5/6) clay; moderate coarse angular blocky structure parting to strong fine angular blocky; very firm; few very fine and fine roots; few faint clay films on faces of peds; common large intersecting slickensides that have distinct polished and slightly grooved surfaces; few fine and medium black (10YR 2/1) stains and soft masses of iron and manganese oxides; very strongly acid; clear wavy boundary.

Btss3—26 to 35 inches; strong brown (7.5YR 5/6) clay; moderate coarse angular blocky structure parting to strong fine angular blocky; very firm; few fine roots; few faint clay films on faces of peds; common large intersecting slickensides that have distinct polished and grooved surfaces; many fine and medium black (10YR 2/1) stains and soft masses of iron and manganese oxides; few fine distinct yellowish red (5YR 4/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Btss4—35 to 42 inches; strong brown (7.5YR 5/6) clay; weak coarse angular blocky structure parting to strong fine angular blocky; very firm; few fine roots; few faint clay films on faces of peds; common large intersecting slickensides that have distinct polished and grooved surfaces; many fine and medium dark brown (7.5YR 3/2) stains and soft masses of iron and manganese oxides; few fine distinct yellowish red (5YR 4/6) masses of iron accumulation; strongly acid; abrupt irregular boundary.

2Cr—42 to 80 inches; interbedded light gray (5Y 7/2) limestone and chalk; massive; extremely firm; thick clay films on vertical surfaces in fractures; violently effervescent; moderately alkaline.

Range in Characteristics

Depth to bedrock: 40 to 60 inches
Depth to secondary carbonates: 30 to 50 inches
Content and size of rock fragments: Less than 10 percent rounded pebbles of quartzite throughout the profile

A or Ap horizon:
Color—hue of 5YR to 10YR, value of 2 or 3, and chroma of 1 to 3
Reaction—very strongly acid or strongly acid, except in areas where lime has been applied

BA horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 3 or 4, and chroma of 3 to 6
Texture—clay loam, silty clay loam, clay, or silty clay
Reaction—very strongly acid or strongly acid

Bt horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8
Texture—clay
Reaction—very strongly acid

Btss horizon (upper part):
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8
Texture—clay
Reaction—very strongly acid or strongly acid

Btss horizon (lower part):
Color—hue of 2.5YR to 7.5Y, value of 4 or 5, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of red, brown, and gray
Texture—clay or silty clay
Reaction—very strongly acid to slightly alkaline

2Cr horizon:
Type of bedrock—interbedded limestone and chalk; massive or platy rock structure
Other—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

Toxey Series

Depth class: Very deep
Drainage class: Moderately well drained
Permeability: Very slow
Parent material: Acid clayey sediments and underlying beds of thinly stratified, alkaline, loamy and clayey sediments, chalk, marl, and shale
Landform: Ridges and hillslopes
Landform position: Summits, side slopes, and shoulder slopes
Slope: 5 to 45 percent
Taxonomic class: Fine, smectitic, thermic Vertic Eutrudepts

Commonly Associated Soils

Brantley, Lorman, Okeelala, and Suggsville soils are commonly associated with the Toxey series.

- The Brantley and Lorman soils are in positions similar to those of the Toxey soils but have strongly developed argillic horizons.
- The loamy Okeelala soils are on side slopes at higher elevations than the Toxey soils.
- The Suggsville soils are on ridges and side slopes at higher elevations than the Toxey soils and have limestone bedrock within a depth of 40 to 60 inches.

Typical Pedon

Typical pedon of Toxey silty clay loam, in an area of Toxey-Lorman complex, 5 to 15 percent slopes; about 1.25 miles northwest of Rockville; near the center of sec. 3, T. 5 N., R. 2 E.; USGS Choctaw Bluff topographic quadrangle; lat. 31 degrees 25 minutes 48 seconds N. and long. 87 degrees 51 minutes 43 seconds W.

Ap1—0 to 1 inch; very dark grayish brown (10YR 2/2) silty clay loam; moderate fine granular structure; friable; many fine, medium, and coarse roots; strongly acid; abrupt smooth boundary.

Ap2—1 to 3 inches; dark grayish brown (10YR 4/2) silty clay loam; strong medium subangular blocky structure; firm; many fine, medium, and coarse roots; common coarse distinct dark brown (7.5YR 3/4) masses of iron accumulation; strongly acid; clear wavy boundary.

Bw—3 to 7 inches; brown (7.5YR 4/4) clay; strong medium angular blocky structure; firm; common fine, medium, and coarse roots; strongly acid; clear wavy boundary.

Bss1—7 to 13 inches; yellowish brown (10YR 5/4) clay; moderate medium angular blocky structure; firm; few intersecting slickensides that have faintly striated surfaces; common medium prominent yellowish red (5YR 4/6) masses of iron accumulation; few medium distinct gray (2.5Y 5/1) iron depletions; very strongly acid; clear wavy boundary.

Bss2—13 to 27 inches; 50 percent light olive brown (2.5Y 5/3) and 50 percent yellowish brown (10YR 5/6) clay; moderate medium angular blocky structure; firm; few fine, medium, and coarse roots; common intersecting slickensides that have distinct polished and grooved surfaces; common fine distinct grayish brown (10YR 5/2) iron depletions; common coarse distinct brownish yellow (10YR 6/6) masses of iron accumulation; moderately acid; gradual wavy boundary.

BC—27 to 31 inches; light olive brown (2.5Y 5/3) silty clay; weak medium platy rock structure; firm; few fine and medium roots; few fine very dark gray (10YR 3/1) organic stains on horizontal surfaces; few fine distinct grayish brown (10YR 5/2) iron depletions; common coarse prominent brownish yellow (10YR 6/8) masses of iron accumulation; neutral; clear wavy boundary.

C1—31 to 40 inches; light brownish gray (2.5Y 6/2) silty clay loam; strong medium platy rock structure; firm; few fine and medium roots; few fine soft masses of calcium carbonate; common coarse prominent yellowish brown (10YR 5/8) masses of iron accumulation; strongly effervescent; slightly alkaline; clear smooth boundary.

C2—40 to 80 inches; 60 percent light yellowish brown (2.5Y 6/3) and 40 percent grayish brown (2.5Y 5/2) clay loam; strong medium platy rock structure; firm; few fine soft masses of calcium carbonate; common coarse prominent yellowish brown (10YR 5/6) masses of iron accumulation; violently effervescent; moderately alkaline.

Range in Characteristics

Thickness of the solum: 15 to 50 inches

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 2 or 3
Reaction—very strongly acid or strongly acid

Bw horizon:
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 6
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
Reaction—very strongly acid or strongly acid

Bss horizon (where present):
Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 3 to 6; or no dominant matrix color and multicolored in shades of brown, yellow, and gray

Texture—clay 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
Reaction—very strongly acid to moderately acid

BC horizon (where present):
Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 3 to 6; or no dominant matrix color and multicolored in shades of brown, yellow, and gray
Texture—clay loam, silty clay loam, clay, 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
Reaction—slightly acid to moderately alkaline

C horizon:
Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 2 to 6
Texture—clay, silty clay, clay loam, or silty clay loam; commonly with thin strata of finer or coarser textured material and lenses of chalk, marl, or shale
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown or yellow
Reaction—slightly alkaline or moderately alkaline

Una Series

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Very slow
Parent material: Clayey alluvium
Landform: Flood plains
Landform position: Oxbows, sloughs, and backswamps
Slope: 0 to 1 percent
Taxonomic class: Fine, mixed, active, acid, thermic Typic Epiaquepts

Commonly Associated Soils

Cahaba, Mooreville, Riverview, and Urbo soils are commonly associated with the Una series.

- The well drained, loamy Cahaba soils are on low terraces.
- The loamy, moderately well drained Mooreville and well drained Riverview soils are on natural levees.
- The somewhat poorly drained Urbo soils are in slightly higher, more convex positions than those of the Una soils.

Typical Pedon

Typical pedon of Una clay, ponded; 0.6 mile east of the Hals Lake camp; 1,600 feet south and 300 feet east of the northwest corner of sec. 23, T. 4 N., R. 2 E.; USGS Carlton topographic quadrangle; lat. 31 degrees 18 minutes 7 seconds N. and long. 87 degrees 51 minutes 13 seconds W.

A—0 to 5 inches; gray (10YR 5/1) clay; weak fine granular structure; firm; common fine and medium roots; few fine and medium yellowish red (5YR 5/8) masses of iron accumulation in pores and on faces of peds; strongly acid; clear wavy boundary.
Bg1—5 to 18 inches; gray (2.5Y 5/1) clay; moderate coarse subangular blocky structure; firm; few fine roots; common medium distinct dark gray (2.5Y 4/1) organic stains on faces of peds; common fine and medium prominent yellowish

red (5YR 5/8) masses of iron accumulation in pores and on faces of peds; very strongly acid; gradual wavy boundary.

Bg2—18 to 42 inches; gray (2.5Y 6/1) clay; weak coarse subangular blocky structure; firm; common medium distinct dark yellowish brown (10YR 4/4) masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bg3—42 to 80 inches; light gray (10YR 6/1) clay; weak coarse subangular blocky structure; firm; common medium distinct yellowish brown (10YR 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

A horizon:
Color—hue of 10YR or 2.5Y, value of 2 to 6, and chroma of 1 or 2

Bg horizon:
Color—hue of 10YR to 5Y, value of 4 to 7, and chroma of 1 or 2
Texture—clay, silty clay, or silty clay loam; thin strata of coarser textured material below a depth of 40 inches in some pedons
Redoximorphic features—masses of iron accumulation in shades of brown, red, or yellow

Urbo Series

Depth class: Very deep
Drainage class: Somewhat poorly drained
Permeability: Very slow
Parent material: Clayey alluvium
Landform: Flood plains
Landform position: Flat or slightly concave positions on lower parts of natural levees and in shallow swales
Slope: 0 to 2 percent
Taxonomic class: Fine, mixed, active, acid, thermic Vertic Epiaquepts

Commonly Associated Soils

Cahaba, Mooreville, Riverview, and Una soils are commonly associated with the Urbo series.

- The well drained, loamy Cahaba soils are on low terraces.
- The loamy, moderately well drained Mooreville and well drained Riverview soils are on the higher parts of the natural levees.
- The poorly drained Una soils are in swales and sloughs.

Typical Pedon

Typical pedon of Urbo silty clay, in an area of Urbo-Mooreville-Una complex, gently undulating, frequently flooded; about 6.5 miles southwest of Carlton; 350 feet south and 1,900 feet east of the northwest corner of sec. 10, T. 3 N., R. 2 E.; USGS Tensaw topographic quadrangle; lat. 31 degrees 14 minutes 7 seconds N. and long. 87 degrees 51 minutes 50 seconds W.

Ap—0 to 4 inches; dark grayish brown (10YR 4/2) silty clay; moderate fine and medium granular structure; firm; common fine and few medium and coarse roots; strongly acid; abrupt smooth boundary.

Bw—4 to 13 inches; brown (10YR 4/3) silty clay; weak medium subangular blocky structure; firm; few fine roots; few fine black (10YR 2/1) organic stains on faces of peds; common fine and medium distinct grayish brown (10YR 5/2) iron depletions; strongly acid; gradual smooth boundary.

Bg1—13 to 29 inches; 50 percent grayish brown (10YR 5/2), 30 percent brown (10YR 5/3), and 20 percent brown (10YR 4/3) silty clay; moderate medium subangular blocky structure; firm; few fine roots; common pressure faces; common fine soft masses and few fine concretions of iron and manganese oxides; strongly acid; gradual smooth boundary.

Bg2—29 to 42 inches; grayish brown (10YR 5/2) silty clay; moderate medium subangular blocky structure; firm; few fine roots; common pressure faces; common fine soft masses of iron and manganese oxides; common fine and medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; strongly acid; gradual smooth boundary.

Bg3—42 to 60 inches; grayish brown (10YR 5/2) clay; weak coarse subangular blocky structure; firm; few fine roots; common pressure faces; common fine soft masses of iron and manganese oxides; common medium and coarse distinct yellowish brown (10YR 5/4) and strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; gradual smooth boundary.

BC—60 to 68 inches; grayish brown (10YR 5/2) silty clay; weak coarse subangular blocky structure; firm; common pressure faces; common fine soft masses of iron and manganese oxides; common medium and coarse distinct yellowish brown (10YR 5/4) and strong brown (7.5YR 5/6) masses of iron accumulation; strongly acid; gradual smooth boundary.

Cg—68 to 80 inches; gray (10YR 6/1) sandy clay loam; massive; friable; few medium soft masses of iron and manganese oxides; many medium and coarse distinct yellowish brown (10YR 5/4) and strong brown (7.5YR 5/6) masses of iron accumulation; 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 that have been limed

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

Bw horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4; or no dominant matrix color and multicolored in shades of brown and gray
Texture—silty clay, clay, clay loam, or silty clay loam
Redoximorphic features—iron depletions in shades of gray or brown and masses of iron accumulation in shades of brown or 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 and gray
Texture—clay or silty clay
Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red

BC and Cg horizons (where present):
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, yellow, and gray
Texture—silty clay, 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, yellow, or red

Wadley 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, backslopes, shoulder slopes, and footslopes
Slope: 1 to 35 percent
Taxonomic class: Loamy, siliceous, subactive, thermic Grossarenic Paleudults

Commonly Associated Soils

Arundel, Boykin, Brantley, Flomaton, Maubila, Okeelala, and Smithdale soils are commonly associated with the Wadley series.

- The moderately deep, clayey Arundel soils are in positions similar to those of the Wadley soils.
- The Boykin soils are in positions similar to those of the Wadley soils but have a sandy epipedon that is 20 to 40 inches thick.
- The clayey Brantley and loamy Okeelala soils are on side slopes at lower elevations than the Wadley soils.
- The Flomaton soils are on side slopes and are sandy-skeletal.
- The clayey Maubila soils are on knolls and the upper parts of side slopes.
- The Smithdale soils are on side slopes and do not have a thick, sandy epipedon.

Typical Pedon

Typical pedon of Wadley loamy sand, 1 to 5 percent slopes; about 3.5 miles southeast of Grove Hill; 1,200 feet north and 900 feet east of the southwest corner of sec. 22, T. 8 N., R. 3 E.; USGS Grove Hill topographic quadrangle; lat. 31 degrees 38 minutes 9 seconds N. and long. 87 degrees 46 minutes 1 second W.

Ap—0 to 10 inches; brown (10YR 4/3) loamy sand; weak fine granular structure; very friable; many fine roots; strongly acid; abrupt smooth boundary.
E1—10 to 38 inches; strong brown (7.5YR 5/6) loamy sand; weak coarse subangular blocky structure; very friable; few fine roots; few thin streaks of uncoated sand; very strongly acid; gradual wavy boundary.
E2—38 to 55 inches; reddish yellow (7.5YR 6/6) loamy sand; weak coarse subangular blocky structure; very friable; few fine roots; very strongly acid; clear wavy boundary.
Bt—55 to 80 inches; yellowish red (5YR 4/6) sandy 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
Reaction: Very strongly acid or strongly acid throughout the profile, except 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

E horizon:
Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 3 to 6
Texture—loamy sand, loamy fine sand, fine sand, or 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

Watsonia Series

Depth class: Shallow
Drainage class: Well drained
Permeability: Very slow
Parent material: Clayey sediments overlying interbedded limestone and chalk
Landform: Ridges and hillslopes
Landform position: Summits, shoulder slopes, benches, and the upper parts of side slopes
Slope: 2 to 40 percent
Taxonomic class: Clayey, smectitic, thermic, shallow Leptic Hapluderts

Commonly Associated Soils

Brantley, Lorman, Okeelala, Prim, Suggsville, and Toxey soils are commonly associated with the Watsonia series.

- The very deep Brantley, Lorman, and Toxey soils are on ridges and side slopes at lower elevations than the Watsonia soils.
- The very deep Okeelala soils are on side slopes at lower elevations than the Watsonia soils and have a loamy subsoil.
- The Prim soils are in positions similar to those of the Watsonia soils but are loamy-skeletal.
- The deep Suggsville soils are in positions similar to those of the Watsonia soils.

Typical Pedon

Typical pedon of Watsonia clay, in an area of Prim-Suggsville-Watsonia complex, 2 to 10 percent slopes; about 3 miles southwest of Suggsville; 900 feet south and 500 feet west of the northeast corner of sec. 25, T. 7 N., R. 3 E.; USGS Suggsville topographic quadrangle; lat. 31 degrees 33 minutes 5 seconds N. and long. 87 degrees 43 minutes 9 seconds W.

Ap—0 to 4 inches; brown (7.5YR 4/4) clay; moderate coarse subangular blocky structure; firm; common fine and medium roots; common pressure faces; about 2 percent fine, rounded pebbles of quartzite; moderately acid; clear wavy boundary.

Bss—4 to 15 inches; yellowish red (5YR 4/8) clay; strong coarse angular blocky structure parting to strong fine angular blocky; very firm; common fine and medium roots; common intersecting slickensides that have polished and striated surfaces; strongly acid; abrupt smooth boundary.

BC—15 to 17 inches; yellowish red (5YR 5/6) clay; weak coarse angular blocky structure parting to strong medium angular blocky; very firm; common fine roots; common intersecting slickensides that have polished and striated surfaces; neutral; abrupt wavy boundary.

Cr1—17 to 38 inches; light gray (10YR 7/2) chalk; moderate medium and thick platy structure; extremely firm; violently effervescent; moderately alkaline; clear irregular boundary.

Cr2—38 to 80 inches; light gray (10YR 7/2) chalk; massive; extremely firm; few thin lenses of indurated limestone; violently effervescent; moderately alkaline.

Range in Characteristics

Depth to bedrock: 10 to 20 inches

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 1 to 4
Reaction—very strongly acid to slightly acid

Bss horizon:
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—clay or silty clay
Reaction—very strongly acid to slightly acid

BC or C horizon (where present):
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8
Texture—clay or silty clay
Reaction—slightly acid to moderately alkaline

Cr horizon:
Type of bedrock—interbedded limestone and chalk with strata or lenses of indurated limestone and marl; massive or platy rock structure
Other—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

Formation of the Soils

In this section, the factors of soil formation are related to the soils in Clarke County, the processes of horizon differentiation are explained, and the geology of the county is described.

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 many ways in the soil profile, 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 Clarke County formed mainly in three kinds of parent material: loamy and clayey marine sediment that has undergone considerable weathering in place, fluvial sediments on stream terraces and flood plains, and materials weathered from limestone, chalk, claystone, siltstone, or shale. Boykin, Brantley, Lorman, Luverne, Okeelala, Smithdale, and Wadley soils formed in the weathered, sandy, loamy, or clayey marine sediments on uplands. Bama, Chrysler, Cahaba, Daleville, Deerford, Flomaton, Harleston, Izagora, Jedburg, Latonia, Lenoir, Lucedale, McCrory, Ocilla, Quitman, Pelham, Saffell, and Savannah soils formed in the fluvial sediments on stream terraces. Bibb, Iuka, Mantachie, Mooreville, Ochlockonee, Riverview, Una, and Urbo soils formed in relatively recently deposited fluvial sediments on flood plains. Prim, Suggsville, Toxey, and Watsonia soils formed in materials weathered from interbedded limestone, chalk, marl, and clayey marine sediments on uplands.

Arundel, Cantuche, and Rayburn 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 Clarke 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 60 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 Clarke 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 in the dissected hills.

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 are 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 Clarke 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 holly, 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, armadillos, 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 Clarke 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, Mantachie, Mooreville, Riverview, Una, and Urbo soils are examples of young soils.

The soils on terraces along the Alabama and Tombigbee Rivers 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. Bama, Daleville, Harleston, Lucedale, Malbis, and Savannah are examples of soils on high or intermediate stream terraces of varying age and elevation. Cahaba, Chrysler, Deerford, Izagora, Latonia, Lenoir, McCrory, and Myatt 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, Boykin, Brantley, Cantuche, Luverne, Okeelala, Smithdale, and Wadley 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. Prim, Suggsville, and Watsonia 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 commonly is darker than horizons below it because of the influence of organic matter. Organic matter has accumulated to form an A horizon in all of 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, 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. Boykin and Smithdale 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 Urbo 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. Bama, Lucedale, and Malbis soils are examples. Soils on flood plains either do not have a B horizon or have a weakly developed B horizon. Examples are Bibb, Iuka, and Mantachie soils. Other soils that do not have a B horizon include some shallow soils, such as Prim and Cantuche soils, that are forming over bedrock that is resistant to erosion.

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 the Chrysler, Malbis, and Izagora 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. Examples are Suggsville, Prim, and Watsonia soils.

In uniform materials, natural drainage generally is closely associated with slope or relief. It 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 Boykin, Lucedale, and Smithdale soils. Soils that formed under poor drainage conditions have grayish colors. Bibb, Daleville, Una, and Urbo soils are examples. Soils that formed where drainage is intermediate have a subsoil that is mottled in shades of gray, red, and brown. Chrysler, Iuka, Lenoir, and Mantachie soils are examples. The grayish colors persist 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.

Geology

The soils of Clarke County are primarily derived from reworked clastic (transported weathered rock) materials that originated in uplands that were to the north during the Tertiary Period (Causey and Newton, 1972). These parent sediments were deposited in both marine and nearshore continental environments. They are transitional from the predominantly nonmarine formations in Mississippi to the marine carbonate rocks of the Florida peninsula (Copeland, 1968; Toulmin, 1940).

Continental, or land-based, depositional environments include such landforms as alluvial fans, flood plains along rivers, stream terraces, stream channels, lakes, and dunes. Marine environments include such features as submerged deltas, beaches, lagoons, reefs, shallow marine shelves, and the deep ocean floor. The transition zone between marine and continental environments is an estuarine zone where fresh water mixes with saltwater and where tidal influences are strong (Plummer and McGeary, 1993).

The depositional environments that were present when the clastic materials were first emplaced and the erosional processes that worked on these materials over time vary widely across the survey area. The stratigraphy that determines the surficial geology of the county was affected by such factors as the timeframe of deposition, the depositional environment, and the geologic nature of the source material. In turn, the nature of the geological outcrop of sediments had a strong influence on the formation and characteristics of the soils. The present landscape of uplands, terraces, and flood plains is the result of reworking and sculpting over the past 2 million years.

Geologic History

286 million years before present

The origin and nature of the parent material in the survey area reflect the geologic history of the Coastal Plain in southwestern Alabama (fig. 17). During the late Paleozoic Era, all of the continents were joined together as one supercontinent named Pangaea (Lacefield, 2000; Plummer and McGeary, 1993; Toulmin, LaMoreaux, and Lanphere, 1951). During the early Mesozoic Era, Pangaea began to split apart. Eventually it formed the continents as they exist today. The Appalachian Mountains originated from the stresses applied to ancient rocks during the formation and eventual separation of Pangaea. Tremendous compressive forces were applied to the region that eventually became southwestern Alabama as the continental plates of North America, South America, and Africa collided. Later, as the continents spread apart, extensional stresses resulted in significant rifting or separation of the earth's crust along the southeastern margin of the North American continent. This rifting action led to the development of a large basin to the south. The basin eventually became the Gulf of Mexico.

180 million years before present

By the Jurassic Period (about 180 million years ago), the Coastal Plain began to form from sedimentary material eroding from Appalachian uplands. Thickening sequences of clastic material were deposited on the outer margins of the continent. During this time of sediment loading and rifting, much of the part of Alabama that was not being uplifted was being intermittently covered by a shallow sea. The weight of the water-laden, transported sediments filling the new ocean basin on a relatively thin and fractured part of the earth's crust helped produce a southward down-warping of the continental margin (Lacefield, 2000; Toulmin, LaMoreaux, and Lanphere, 1951). The subsidence of the area, derived from the Appalachian uplift and subsequent erosion, and a slowly retreating shoreline of the shallow sea produced the curving, banded outcrop pattern of the Gulf Coastal Plain Province. Each band is a progressively younger set of sediments coming to the surface just south of the previous older set. This progression of sediments is most evident in northern Clarke County, where the oldest outcrops are of the Tertiary Period (from about 65 million to 2 million years before present). In the central and southern parts of the county, the predictable pattern of outcrop is disrupted by several deformations of the earth's crust.

58 million years before present

During the early and middle parts of the Tertiary Period (the Eocene and Oligocene Epochs), the Coastal Plain began a gradual emergence from a predominately marine

Timetable of Alabama Geologic History

Era	Time Period	Epoch	When Began (in millions of years)	Significant Events in Alabama Geologic History
Cenozoic Era	Quaternary	Holocene	10,000 years	Present epoch of earth history
		Pleistocene		The "Ice Age"
	Tertiary (epochs →)	Pliocene	5	Climate becomes unstable, deciduous trees begin to dominate Alabama forests
		Miocene	22.5	
		Oligocene	37	
		Eocene	55	Alabama climate warm and wet; lignite coal forms across south
		Paleocene	65	
Mesozoic Era	Cretaceous		144	Warm ocean covers Alabama; "Selma chalk" deposited offshore
	Jurassic		213	Opening of Gulf of Mexico; oil deposited
	Triassic		248	Pangaea begins to rift apart; first dinosaurs and mammals
Paleozoic Era	Permian		286	Alabama locked within Pangaea, no rocks from this time remain
	Carboniferous	Pennsylvanian	320	"Coal Age" forest, Pangaea forms
		Mississippian	350	Thick limestones deposited
	Devonian		408	Land plants and animals diversify
	Silurian		438	Red Mountain iron ores form
	Ordovician		505	Much limestone deposited, volcanic activity nearby to east
	Cambrian		545	Alabama on passive margin of ancient North American continent
"Precambrian"	"Precambrian" (represents about 87% of the Earth's history)			First multicellular organisms
	Proterozoic Eon		2.5 billion	First "free oxygen" in earth's atmosphere
	Archaean Eon			First fossilized bacteria
			3.8 billion	Age of oldest known rocks

Figure 17.—Geologic timetable of Alabama.

environment that included marginal marine, estuarine, and shallow marine environments controlled by rising and falling sea levels (fig. 18). During the latter part of the Tertiary Period (the Miocene and Pliocene Epochs), deposition shifted toward a continental environment that included estuarine and deltaic sediments (Raymond and others, 1988).

2 million years before present

The Tertiary Period gave way to the Pleistocene Epoch of the Quaternary Period. The Pleistocene Epoch (about 2 million to 10 thousand years ago) was an era of repeated worldwide glaciation. Most of the earth's present landforms have been established since that time.

Although continental glaciers never covered the southeastern United States, their presence to the north produced worldwide changes in climate, vegetation, and sea level. During periods of maximum glaciation, the mean sea level was lowered significantly because much of the global moisture was bound up in the massive ice sheets. During the warmer interglacial stages, higher sea levels resulted as numerous icebergs broke off into the ocean from the melting glaciers. Huge continental rivers with tremendous sediment loads also occurred. Great amounts of moisture were released into the atmosphere, fueling long periods of intense rainfall and erosion that

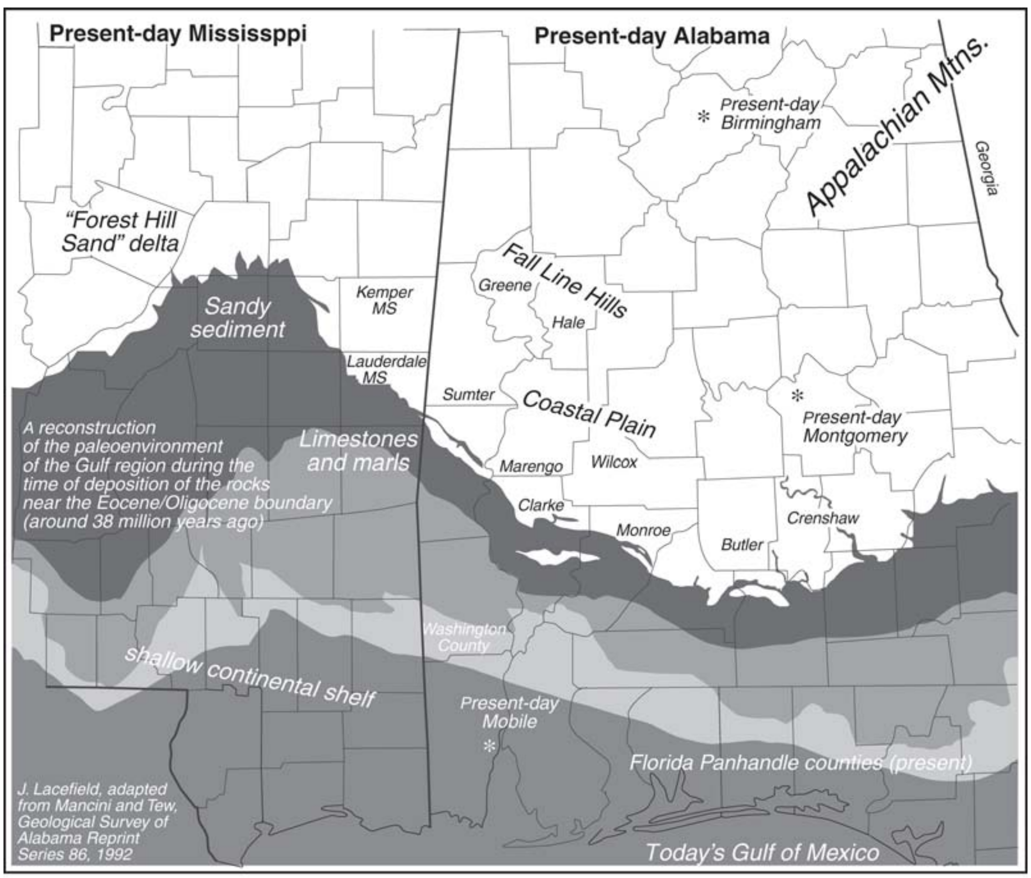

Figure 18.—A reconstruction of the paleoenvironment of the Gulf region during the time of deposition of the rocks near the Eocene/Oligocene boundary (around 38 million years ago). Much of southern Alabama and Mississippi was submerged in a shallow sea during the Oligocene Period. The marine sediments deposited during this period include the limestone, chalk, marl, and shale exposed in the uplands of Clarke County today.

contributed even higher volumes of water and sediment to the cycle (Lacefield, 2000; Plummer and McGeary, 1993). Many geologists agree that the Alabama coastline was more than 300 feet above the present mean sea level during pre-Pleistocene and early- to mid-Pleistocene times. During the late Pleistocene Epoch, a drop in sea level resulted in the coastline being about 60 miles offshore from its present location (Lacefield, 2000; Smith, 1988).

The changes in sea level were accompanied by fluctuations in the base level of major streams (Smith, 1988). These fluctuations determined how sediments were deposited, eroded, and reworked over time. The base level of streams with respect to the high points on the landscape affects stream gradient. A steeper gradient results in greater erosive power and higher sediment carrying capacity. During the earlier periods, when the sea level was elevated, a predominantly depositional environment existed. The base levels of the major streams were at higher points on a less-dissected landscape than at present. Fluvial deposits were spread across the terrain as immature, sediment-laden streams meandered across broad, flat areas. As the sea level fell, the gradient increased and the streams incised more deeply into the landscape, became energized, and increased in erosive power. As the streams flowed toward the Gulf of Mexico, they helped to produce northerly facing “cuestas.” Cuestas are steep escarpments that formed by the removal of the softer material and the retention of the more resistant layers of sediment (Lacefield, 2000). Arundel and Cantuche soils are examples of soils that formed in resistant beds of siltstone and claystone on steep escarpments.

Layers of sediment on the surface were subject to erosion. Some of the sediments were transported downslope to become deposits on footslopes and toeslopes or to become valley fill. Stream action reworked the valley fill deposits and redistributed the material onto flood plains. On uplands, especially on side slopes, underlying older sediments were commonly exposed. In places, younger strata eroded away to expose older sediments beneath. Flomaton-Smithdale-Wadley complex, 10 to 25 percent slopes, and Lorman-Toxey-Okeelala complex, 15 to 45 percent slopes, are on side slopes that have several distinct exposed strata. The strata commonly represent different depositional environments and are of different ages. The gravelly Flomaton, loamy Smithdale, and sandy Wadley soils are examples of soils that formed in different parent material.

In places, Pleistocene-age sediments cap ridges or form terraces adjacent to major streams. The sediments are remnant deposits on summits of stable landform surfaces on which erosion has been less effective. Lucedale, Bama, and Malbis soils on summits of ancient terraces are examples of soils that formed on these geomorphic surfaces.

Some Pleistocene-age deposits contain basal layers of rounded gravel (mostly quartzite and chert). Layers of these basal gravels are evident in road cuts on high ridges in the county. Large glacial-age streams transported these rocks halfway across the State and left them deposited on what are now the higher parts of the landscape. The very gravelly Flomaton and Saffell soils typically are exposed on the shoulders of ridges, on nose slopes, and on the upper parts of side slopes. On summits, the gravelly material is commonly overlain with sandy or loamy material.

10 thousand years ago to the present

During the Holocene Epoch of the Quaternary age (10 thousand years ago to the present), alluvial flood plains and low terrace deposits formed in the county. During this period, the sculpting of the land’s surface has continued, although at a slower rate than when the sea level and the stream base-level were lower. Bibb, Mantachie, Una, and Urbo soils are examples of soils on the lower parts of flood plains. Iuka, Mooreville, Ochlockonee, and Riverview soils are examples of soils on the intermediate to higher parts of natural levees adjacent to stream channels. Daleville, Harleston, Quitman, and Savannah soils are examples of soils that formed on the intermediate or mid-level terraces. Cahaba, Chrysler, Izagora, Latonia, Lenoir, and McCrory soils are examples of soils that formed on the low terraces adjacent to flood plains.

Geologic Structure

Clarke County is located over the eastern margins of the buried Mississippi Salt Basin and exhibits some interesting and important structural features (Causey and Newton, 1972; Copeland, Newton, and Self, 1976; Pashin and others, 1998; Toulmin, LaMoreaux, and Lanphere, 1951). These features include deformations of the earth's crust caused by folding and faulting. The resulting areas have rugged topography, increased availability of certain valuable natural resources, and exposures of geologic materials outside the areas where they would normally crop out.

During the earlier formative years of the Gulf of Mexico, evaporites (sediments of precipitated salts) began to form and thicken in the shallow Gulf basin. The climate was arid, and the surrounding landscape was reminiscent of the Great Salt Lake as it is today. The evaporites are now a deeply buried evaporative seabed named the Louann Salt. They have had a profound effect on the development of the regional landscape and on the mineral resources of southwestern Alabama. The development of hydrocarbon deposits was especially effected (Pashin and others, 1998; Toulmin, LaMoreaux, and Lanphere, 1951).

The weight of the overlying seawater-laden sediments and the relative density of the salt beds compared to the other sediment and rock layers caused an upwelling of the once-flat salt deposits over geologic time (figs. 19 and 20) (Copeland, 1968; Lacefield, 2000; Sheldon, 1982). Salt deposits tend to squeeze upward when forces of compaction and compression are applied. The upward movement of the salt in the area formed "salt domes," which caused minor deformations of the earth's surface near the towns of Suggsville and Manila and in the Alabama River basin near Cedar Creek (Causey and Newton, 1972).

The salt domes caused deformation where the salt was pushing upward and caused subsidence in areas where the salt had withdrawn in order to form the salt dome and supporting column. The deformations are further described in the following paragraphs regarding the Hatchetigbee Anticline, the Jackson Fault, and the West Bend-Coffeeville Fault system.

The structural features associated with the movement of buried salt in Clarke County are the Hatchetigbee Anticline and the Jackson, West Bend, and Coffeeville Fault zones. Typically, surficial geologic units of the lower Coastal Plain strike west to northwest and dip southwest at about 30 feet per mile (Copeland, 1968; Toulmin, 1940). In the northern part of the Clarke County, however, the geologic units strike northwestward and dip southwestward at about 40 feet per mile until interrupted by the Hatchetigbee Anticline (Causey and Newton, 1972; Raymond and others, 1981). The dip reverses at this point, and at the southeastern part of the anticline the dip is southeastward at about 100 feet per mile. Along the Jackson Fault, south of Jackson, the strike of the beds is northward.

The West Bend Fault trends southeast in an arc from just north of West Bend across Bassett Creek south of Allen. The Coffeeville Fault parallels the West Bend Fault to the south from Coffeeville to the McVay area. These two faults form a graben—a downthrown elongated block of geologic material between the two faults. This particular graben may be a collapse feature resulting from subsidence following migration of the salt (Copeland, 1968).

The Hatchetigbee Anticline is a salt-cored, crustal fold exposed on the Alabama Coastal Plain (fig. 21) (Causey and Newton, 1972; Copeland, 1968; Pashin and others, 1998; Toulmin, LaMoreaux, and Lanphere, 1951). The anticline is an

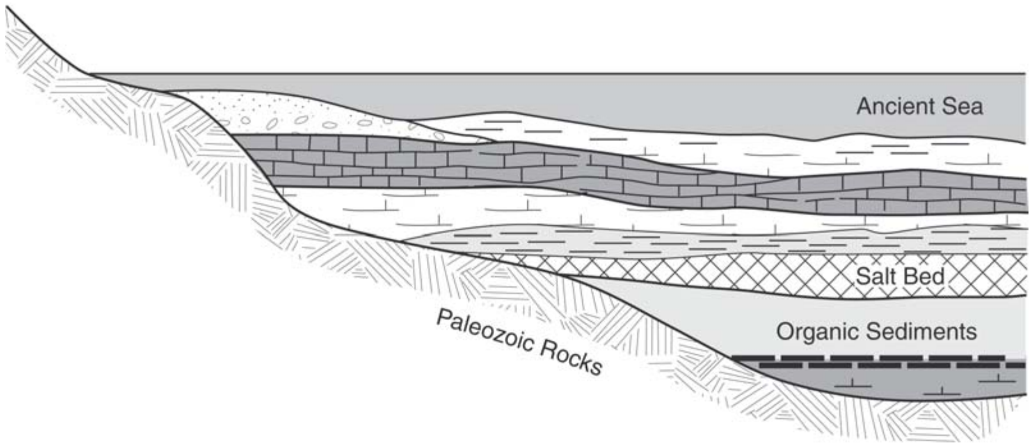

Figure 19.—Origin of a salt bed: Millions of years ago, a part of the Costal Plain area was reminiscent of the area around the Great Salt Lake. During this much drier climate, an evaporative salt deposit formed in the bed of a shallow sea. Subsequently it was covered over by tens of thousands of feet of sedimentary layers as sea level rose and fell over long periods of time.

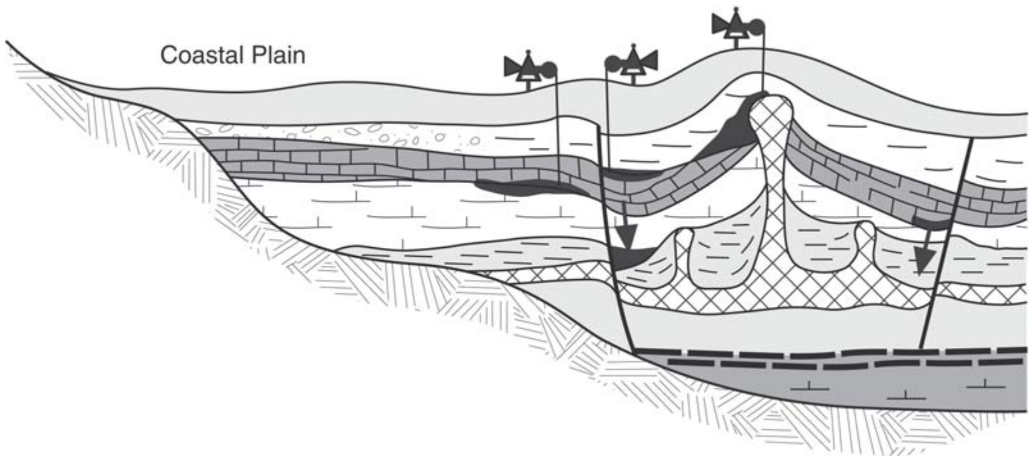

Figure 20.—Salt dome formation: Over geologic time, the weight of several thousands of feet of water-laden sediments exerted pressure on the once-flat salt bed, causing an upward welling of the salt. As the less dense, plastic salt thrust upward, it deformed the overlying sedimentary layers. Faulting and folding resulted, and cracks and fissures formed along this zone of deformation allowing oil and natural gas deposits to rise upward. The gas and oil collected in traps formed by dense layers of clays and bedrock surrounding porous layers of sands and soft shales. The formation of salt domes caused deformation of the local landscape, resulting in increased relief, exposure of older sediments to weathering, and creation of salty artesian springs.

asymmetrical ridge about 10 miles wide and 30 miles long. The long axis trends southeastward. It begins in southern Choctaw County, crosses the Tombigbee River near the mouth of Satilpa Creek, and continues southeasterly to about Jackson Creek near Mays Crossroads. A geologic unit comprised of undifferentiated material of the Tuscahoma Sand and the Hatchetigbee Formation is the oldest stratum exposed on the eroded crest of the anticline. Successive strata that are as young as Miocene discontinuously surround the elliptical structure in descending order.

The north end of the exposed part of the Jackson Fault truncates the southern terminus of the anticline. The Jackson Fault roughly parallels the Tombigbee River in

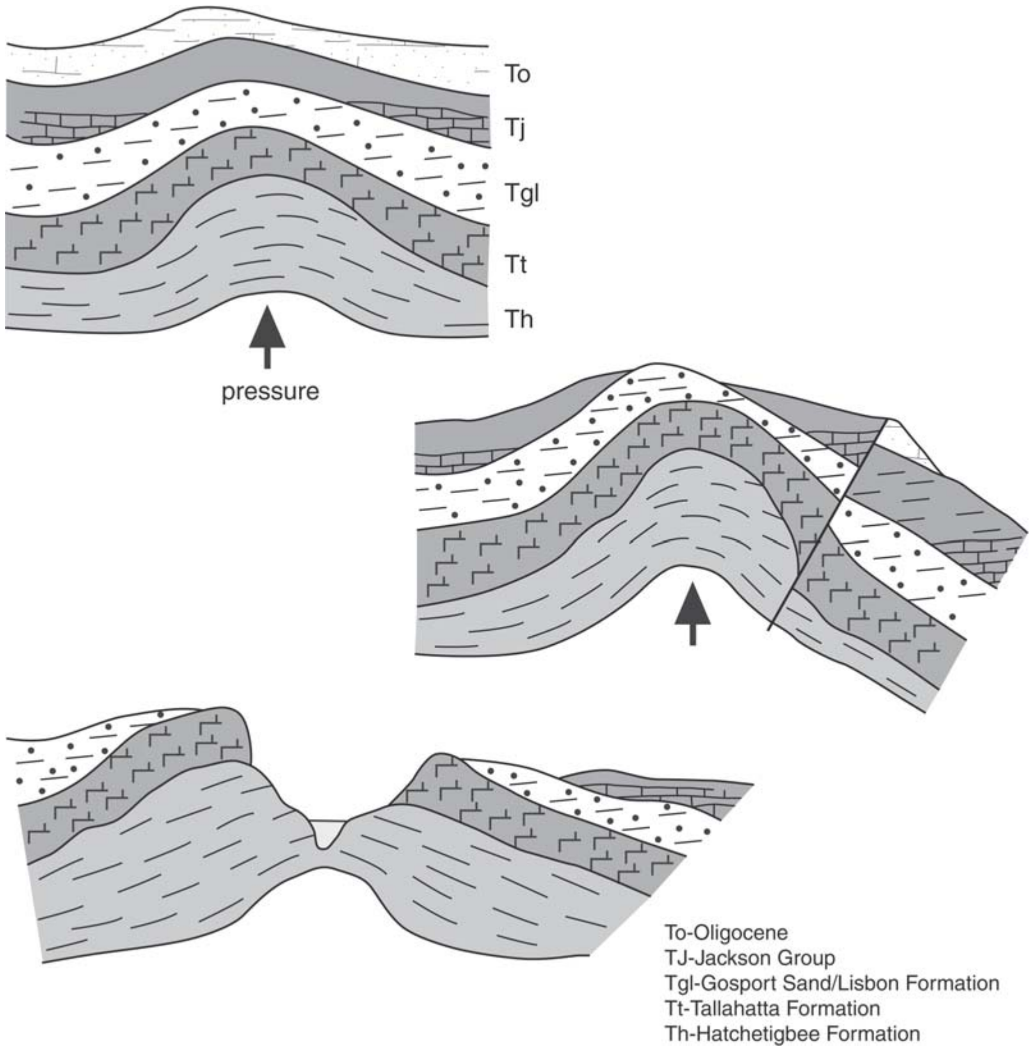

Figure 21.—The Hatchetigbee Anticline, which is more than 30 miles long and 15 miles wide, resulted from a convex upward folding of the bedded sediments. The uplifting mechanism is thought to be a salt dome. Erosion of the deformed strata during the uplifting has resulted in rugged topography and exposure of sedimentary beds that normally would be overlain by younger sediments.

an arcing trend that extends southeast through Jackson and then south-southwest to Paynes Hammock near the mouth of Limestone Creek. West of the fault and south of Jackson, the uplands are covered by younger, medium- to coarse-textured sediments of Miocene to Pleistocene age with an admixture of older alluvium from the Tombigbee River. East of the fault, however, the stratigraphic placement of geologic units is quite variable. Strata of surficial outcrop from every age found in Clarke County are within an area between the fault and 3 miles east of its axis. The maximum vertical displacement of the Jackson Fault at the surface, about 1,400 feet, is greater than that of any other fault on the Coastal Plain in Alabama (Copeland, 1968; Raymond and others, 1981; Toulmin, 1977). To a lesser extent, additional faulting and folding also occurs in the vicinities of Walker Springs, Allen, Suggsville, and Manila and in the Alabama River basin near Cedar Creek (Causey and Newton, 1972).

The structural anomalies of folding and faulting brought about by movement of the buried salt resulted in several unique features of the natural resources, physiography, landscape, and associated soils in Clarke County. The stresses caused by down-warping of the continental shelf and upwelling of the salt basin caused fracturing in the earth's crust. The fractures provide subsurface repositories where oil and natural gas pool. Salt seeps and springs also occur in relation to the Hatchetigbee Anticline and the Jackson Fault.

The physiography of Clarke County has been affected by the underlying geologic structure of the area. Erosion in uplifted areas produced areas of rugged topography associated with resistant beds of limestone, siltstone, and claystone. Erosion in the uplifted areas commonly exposes strata that are less weathered and contain more carbonates than the strata of the same geologic materials in other areas (Toulmin, LaMoreaux, and Lanphere, 1951; Toulmin, 1977). Brantley, Okeelala, Lorman, and Toxey soils on dissected side slopes are examples of soils forming in the uplifted areas.

Typically, outcroppings on the Coastal Plain occur in a belted fashion from oldest to youngest in a southwestward direction towards the Gulf of Mexico. This orderly progression has been disrupted in Clarke County. An example of a disruption occurs where uplifting in areas of the anticline exposes the Hatchetigbee, Tallahatta, and Lisbon Formations well south of where they would otherwise be expected to outcrop.

Other disruptions to the normal pattern of outcroppings occur on the upthrown side of the Jackson Fault. For example, the Naheola Formation is exposed about 50 miles southwest of where it would outcrop if it followed the normal pattern. Also, the Salt Mountain Limestone is exposed in this vicinity. It is not known to be exposed on the surface anywhere except where it has been uplifted in the area of the Jackson Fault south of Jackson, Alabama. Everywhere else, the Salt Mountain Limestone is buried by younger sediments.

Geologic Surfaces

Twelve major outcrops of geologic units are defined on the geologic map of Clarke County (Causey and Newton, 1972). The units range in age from Paleocene to Holocene (Causey and Newton, 1972; Copeland, 1968; Raymond and others, 1988; Toulmin, LaMoreaux, and Lanphere, 1951; Toulmin, 1940). They are of sedimentary origin and consist of sand, silt, clay, gravel, claystone, siltstone, sandstone, marl, and limestone. From oldest to youngest they are the Naheola Formation and Salt Mountain Limestone (Midway Group) of the Paleocene Series; the Tuscahoma Sand and Hatchetigbee Formation (Wilcox Group), the Tallahatta Formation and Lisbon Formation/Gosport Sand (Claiborne Group), and the Moodys Branch and Yazoo Clay (Jackson Group) of the Eocene Series; the Red Bluff Clay, Marianna Formation, Byrum Formation, and Chickasawhay Limestone of the Oligocene Series; the Pliocene and Miocene Series, undifferentiated; the high terrace deposits of the Pleistocene Series; and alluvium of the Holocene Series. The twelfth unit is related to the structural anomalies in the county. The Hatchetigbee Formation and Tuscahoma Sand, undifferentiated, are exposed in the southwestern part of the county. Because of lithological similarities, they occur together as an undifferentiated unit along the flanks of the Hatchetigbee Anticline between Jackson and Coffeeville and on the upthrown side of the Jackson Fault between Bassett Creek and Limestone Creek.

The separate units of the Gosport Sand/Lisbon Formation, the Jackson Group, and the Oligocene Series are not separated on the geologic map because they have thin beds, similar lithologies, indistinct contact, and weathered exposure. Deposits that overlie the Oligocene Series and that were not identifiable as high terrace or alluvial deposits of Pleistocene or Holocene age were grouped together on the map as the Pliocene and Miocene unit.

The Midway Group is in the subsurface of the county. It outcrops only in the vicinity of the upthrown side of the Jackson Fault between Jackson and the community of Rockville near Salt Mountain. The Naheola Formation consists of gray, laminated, thin-bedded, carbonaceous clay, silt, and very fine grained sand. The Salt Mountain Limestone is white, massive, indurated, fossiliferous limestone about 90 feet thick.

The Tuscahoma Sand is the oldest formation that outcrops in the northern part of the county. It crops out along Bashi Creek and the borders of Marengo and Wilcox Counties. It is about 350 feet thick in the outcrop. It consists mainly of fine- to medium-grained, cross-bedded sand; fossiliferous greensand marl; and gray, laminated and thin-bedded clay, fine grained sand, and silt. The laminated and thin-bedded clay, fine grained sand, and silt comprise most of the unit in the outcrop. Thin-bedded lignite also occurs in the formation. Luverne, Smithdale, Boykin, and Halso soils are the dominant soils that formed in this unit.

The Hatchetigbee Formation is about 250 feet thick. It overlies and parallels the Tuscahoma Sand to just south of Tallahatta Creek. Past Thomasville, both strata trend southeasterly towards Chance and the Monroe County line. The Hatchetigbee Formation is separated from the underlying similar beds of the Tuscahoma Sand by about 20 to 30 feet of the Bashi Marl member. The Bashi Marl member is characterized by greenish-gray, calcareous, glauconitic, fossiliferous sand with large, calcareous sandstone boulders. The upper, unnamed, member of the Hatchetigbee Formation is similar in stratigraphy to the Tuscahoma Sand in that both have thin-bedded, laminated, carbonaceous clay, silt, and very fine grained sand and have fine grained glauconitic sand. In some exposures, the Hatchetigbee Formation is capped with light colored, medium to coarse sand that is difficult to distinguish from the intermittent Meridian Sand member of the overlying Tallahatta Formation. Luverne and Smithdale soils are the dominant soils in areas of the Hatchetigbee Formation. Boykin and Wadley soils are in areas near the contact between the Hatchetigbee Formation and the Tallahatta Formation.

The Tallahatta Formation ranges from 80 feet to about 130 feet in thickness. It crops out in the northern part of the county in an east-to-west band from West Bend to south of Thomasville and then trends southeast. It is also exposed south of its expected outcrop around the flanks of the Hatchetigbee Anticline and near the Jackson Fault in the southwestern part of the county.

The Tallahatta Formation is primarily composed of light gray, thin-bedded to massive, sparsely fossiliferous to unfossiliferous, siliceous, indurated clay, claystone, mudstone, and siltstone with an abundance of fine grained, indurated, biosiliceous (diatomaceous) sediment (Ivany, 1998). It also contains thin layers of sandy clay, glauconitic sand, and sandstone. The indurated claystone becomes brittle when exposed to air and breaks into angular blocks that have a pronounced conchoidal fracture. In places, the claystone has been cemented with silica to form a mottled light gray, white, and gray quartzite. The quartzite was the main source material for construction of stone tools in this region of the Gulf Coastal Plain (Lacefield, 2000).

The Tallahatta Formation is the most dramatic exposure of rock on the Coastal Plain in Alabama. In its normal outcrop, the formation has a rugged, north-facing escarpment (cuesta) characterized by steep hills, many outliers, and relief that is commonly 300 feet above streams. The resistant siltstone protects the softer underlying Hatchetigbee material, especially where the siltstone is mantled by indurated quartzite. The Hatchetigbee material commonly forms up to 100 feet of the lower strata of the cuesta. Arundel, Cantuche, and Rayburn soils formed in material weathered from this formation.

Sand of the overlying Lisbon Formation caps much of the top and the southward facing backslope of the cuesta rim. The Lisbon Formation disconformably overlies the Tallahatta Formation and is, in turn, overlain by the Gosport Sand. The total thickness of the Gosport/Lisbon unit generally ranges from about 125 to 250 feet. The unit crops out in an irregular band across much of the north-central part of the county. It also crops out along the flanks of the Hatchetigbee Anticline in the southwestern part of the county. In this outcrop, the unit ranges from 5 to 50 feet in thickness. In general, the unit consists of beds of white, yellow, and reddish-orange to red, very fine- to coarse-grained, glauconitic sand; glauconitic and fossiliferous greensand with indurated calcareous layers; beds of light tan, yellow, pink, and brown, fine grained sand; argillaceous sandstone; and light gray and greenish-gray clay. The base of the Lisbon Formation is a distinctive light blue-green, clayey, glauconitic sand. Much of the unit is highly weathered. Soils of the Boykin, Luverne, Smithdale, and Wadley series formed in this highly weathered material. Brantley and Okeelala soils formed in areas where the underlying calcareous material has not completely weathered and leached away.

The Jackson Group, which occurs in an irregular pattern in the east-central part of the county, disconformably overlies the Gosport Sand. The Jackson Group also crops out northeast of the Gosport/Lisbon unit between West Bend and Jackson. In this area, the Jackson Group is associated with the Gilbertown and West Bend Fault zone. The Jackson Group consists of the Moodys Branch Formation at its base and is overlain conformably by the Yazoo Clay. The Yazoo Clay is comprised of four members. In ascending order, they are the North Twistwood Creek, Cocoa Sand, Pachuta Marl, and Shubuta members. The Jackson Group is not differentiated on the geologic map because of the thinness of the components and the indistinct nature of the Moodys Branch in weathered outcrops. The combined thickness of the members ranges from about 100 to 130 feet.

The Moodys Branch Formation is mostly interbedded light gray to yellowish-tan, glauconitic, sandy limestone and marl with abundant fossil molds and prints. In some areas, it contains concentrations of the sand dollar *Periarchus lyelli* (Conrad) and is known as the “Scutella bed.” It weathers to yellow and yellowish-brown, ferruginous sand that may be slightly cemented. The North Twistwood Creek member consists chiefly of light gray to greenish-gray, plastic, calcareous, massive clay and sandy clay that are sparsely fossiliferous and commonly have white nodules of calcium carbonate. The Cocoa Sand member is firm calcareous sand with thin, gray clay partings. It weathers to yellow, orange, and light gray, fine- to medium-grained sand. The Pachuta Marl member is primarily light-gray and white, chalky, fossiliferous marl that is partly indurated. This member commonly contains large fossils, including remains of the State fossil of Alabama: *Basilosaurus cetoides* (Owen), an ancient whale. The uppermost Shubuta member consists of light greenish-gray and white, highly calcareous clay that weathers yellowish-gray to white with abundant nodules of calcium carbonate. It resembles the North Twistwood Creek member but is less sandy. Prim, Suggsville, and Watsonia soils formed in materials weathered from limestone, marl, and chalk. Brantley, Lorman, Okeelala, and Toxey soils formed in materials weathered from the stratified clayey, loamy, and sandy sediments. These soils are commonly underlain at some depth by alkaline clays, chalk, or marl. The sedimentology of the Yazoo Clay is fairly consistent but becomes more calcareous east of Whatley.

The Oligocene Series overlies the Shubuta member of the Yazoo Clay and crops out in a southeast trending belt across the central and southern parts of Clarke County. In many places, the outcrop is disrupted by faulting. Four members of the Oligocene Series are exposed in the county. In ascending order, they are the Red Bluff Clay, Marianna Limestone, Byrum Formation, and Chickasawhay Limestone. The combined thickness of the four members ranges from about 100 to 140 feet.

In many places, the components of the Oligocene Series have become indistinct because of removal, dissolution of calcareous materials, and overlapping by the Miocene Series and younger sediments. Many other places, however, have rugged topography where beds of limestone and chalk that are resistant to erosion have produced extremely steep, rocky slopes.

The Red Bluff Clay in the western part of the county consists of greenish-gray to greenish-black, thin-bedded to massive, glauconitic, micaceous, carbonaceous silty clay that has thin beds of sand and has yellowish-green to pale olive, sandy, glauconitic, fossiliferous marl and limestone ledges. In some areas, the massive clay bed in the upper part contains gypsum crystals (selenite). The Marianna Limestone is white to cream-colored, soft, chalky, porous, fossiliferous limestone. This limestone is soft enough that it was quarried as “chimney stone” (Lacefield, 2000). The Byrum Formation is divided into the Glendon Limestone member at the bottom, an unnamed marl member in the middle, and the Bucatunna Clay member at the top. Although it averages only about 15 feet in thickness, the Glendon Limestone is notable because it consists of light gray and yellow, hard, semi-crystalline, fossiliferous limestone that resists weathering. It is known locally as “horsebone rock” because it has irregularly weathered tubular cavities throughout. Commonly found on narrow ridges and on the upper parts of very steep slopes, this hard-rock ledge serves to protect the underlying soft Marianna Limestone from erosion, resulting in extremely steep escarpments. The other members of the Byrum Formation are difficult to identify and are poorly exposed on the surface. The Chickasawhay Limestone is also poorly exposed in the county. It is a thin bed of yellow, clayey marl and light-gray to yellowish-gray, hard, crystalline, fossiliferous limestone. The Prim and Watsonia soils and the undifferentiated Eutrudepts are dominant in areas of the Oligocene unit. Suggsville soils formed in the Red Bluff Clay.

The Oligocene Series is overlapped unconformably by the Pliocene and Miocene Series and an overtopping admixture of possibly early-Pleistocene sediments. The undifferentiated Pliocene-Miocene unit caps ridges in the central part of the county. It also covers most of the southern uplands, where it can be as much as 300 feet thick. The Miocene Series has the Paynes Hammock Sand at the bottom and the Catahoula Sandstone at the top. The Pliocene Series, which is younger than the Miocene Series, is represented by the Citronelle Formation.

The Pliocene and Miocene Series have similar lithologies and are deeply weathered. They consist of light gray and varicolored clay and yellow, pink, and tan sand, gravel, and sandstone. These sediments are of fluvial and deltaic origin. Boykin, Smithdale, Malbis, Maubila, Olla, and Wadley soils are on summits of ridges and on side slopes in areas of the undifferentiated Pliocene-Miocene unit.

Quaternary terrace deposits and alluvium unconformably overlie older sediments throughout the county in areas adjacent to the Tombigbee and Alabama Rivers and their major tributaries. On the surface, these deposits consist of unconsolidated sand, silt, and clay and minor amounts of gravel. High terrace deposits of Pleistocene age occur adjacent to the Tombigbee River between the Marengo County line and Jackson and along the Alabama River from south of Silver Creek to an area just south of Carlton. The largest of these terraces are situated near Gosport and Barlow Bend. Bama, Lucedale, and Malbis soils are on these broad, gently sloping, high terraces.

Alluvium and intermediate terrace deposits of late Pleistocene and Holocene age fill the valleys of all the major streams in the county. The intermediate terrace deposits are remnants of former flood plains that are no longer subject to flooding because the streams have incised to a lower level. Daleville, Harleston, Quitman, and Savannah soils are on these landforms. Cahaba, Chrysler, Izagora, Jedburg, Latonia, and Lenoir soils are on low terraces adjacent to the major streams. Theses terraces are slightly higher than the flood plain but may be briefly flooded during periods of severe flooding. Urbo, Una, and Mooreville soils are on flood plains along the Alabama and Tombigbee Rivers. Riverview soils are on the natural levees adjacent to the river channels. Ochlockonee, Mantachie, Iuka, and Bibb soils are on the flood plains of tributary streams, such as Bashi, Bassett, Jackson, Satilpa, Tallahatta, and Tattilaba Creeks.

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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.

Alkali (sodic) soil. A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

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.

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.

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.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Delta. A body of alluvium having a surface that is nearly flat and fan shaped; deposited at or near the mouth of a river or stream where it enters a body of relatively quiet water, generally a sea or lake.

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.

Dip slope. A slope of the land surface, roughly determined by and approximately conforming to the dip of the underlying bedrock.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

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.

Duff. A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.

Ecological site. An area where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. An ecological site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other ecological sites in kind and/or proportion of species or in total production.

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.

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.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

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.

Flaggy soil material. Material that has, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.

Flagstone. A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.

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.

Gilgai. Commonly, a succession of microbasins and microknolls in nearly level areas or of microvalleys and microridges parallel with the slope. Typically, the microrelief of clayey soils that shrink and swell considerably with changes in moisture content.

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 bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hardpan. A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.

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.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

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.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

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.

Invaders. On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

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.)

Lacustrine deposit. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

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.

Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.

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).

Muck. Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

Mudstone. Sedimentary rock formed by induration of silt and clay in approximately equal amounts.

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.

Natric horizon. A special kind of argillic horizon that contains enough exchangeable sodium to have an adverse effect on the physical condition of the subsoil.

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.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

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.

Plateau. An extensive upland mass with relatively flat summit area that is considerably elevated (more than 100 meters) above adjacent lowlands and separated from them on one or more sides by escarpments.

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 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.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

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.

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
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:

Gently undulating	0 to 3 percent
Undulating	3 to 8 percent
Rolling	8 to 15 percent
Hilly	15 to 25 percent
Steep	25 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.

Sodic (alkali) soil. A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

Sodicity. The degree to which a soil is affected by exchangeable sodium. Sodicity is expressed as a sodium adsorption ratio (SAR) of a saturation extract, or the ratio of Na^{+} to Ca^{++} + Mg^{++}. The degrees of sodicity and their respective ratios are:

Slight	less than 13:1
Moderate	13-30:1
Strong	more than 30:1

Sodium adsorption ratio (SAR). A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.

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.

Talus. Fragments of rock and other soil material accumulated by gravity at the foot of cliffs or steep slopes.

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.

Trace elements. Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.

Upland. Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Valley fill. In glaciated regions, material deposited in stream valleys by glacial meltwater. In nonglaciated regions, alluvium deposited by heavily loaded 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.

Varve. A sedimentary layer or a lamina or sequence of laminae deposited in a body of still water within a year. Specifically, a thin pair of graded glaciolacustrine layers seasonally deposited, usually by meltwater streams, in a glacial lake or other body of still water in front of a glacier.

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 Thomasville, Alabama]

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average	2 years in 10 will have-- Maximum temperature higher	2 years in 10 will have-- Minimum temperature lower	Average number of growing degree	Average	2 years in 10 will have-- Less than--	2 years in 10 will have-- More than--	Average number of days with 0.10 inch	Average snowfall
	°F	*°F*	*°F*	*°F*	*°F*	*Units*	*In*	*In*	*In*		*In*
January-----	57.5	34.5	46.0	77	11	73	6.21	3.78	8.39	8	0.1
February----	62.2	37.2	49.7	81	16	111	5.04	2.92	6.93	6	0.0
March-------	70.2	44.2	57.2	86	23	259	6.95	3.69	9.81	7	0.4
April-------	76.9	50.5	63.7	90	33	416	4.64	2.24	6.71	5	0.0
May---------	83.5	59.4	71.5	94	44	660	4.75	2.34	6.85	6	0.0
June--------	89.3	66.6	78.0	98	53	838	4.92	2.53	7.00	7	0.0
July--------	91.7	69.8	80.7	100	62	949	6.05	3.23	8.53	8	0.0
August------	91.5	69.0	80.2	99	60	921	3.88	1.93	5.57	6	0.0
September---	87.5	63.7	75.6	98	47	764	3.72	1.37	5.68	5	0.0
October-----	78.4	52.0	65.2	92	34	464	2.97	0.67	4.78	3	0.0
November----	68.3	43.3	55.8	85	25	221	5.31	2.60	7.66	6	0.0
December----	59.9	36.7	48.3	79	14	110	5.16	3.18	6.95	6	0.0
Yearly:											
Average---	76.4	52.2	64.3	---	---	---	---	---	---	---	---
Extreme---	104	-1	---	101	8	---	---	---	---	---	---
Total-----	---	---	---	---	---	5,786	59.59	50.95	67.71	73	0.6

* 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 Thomasville, 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. 7	Mar. 19	Apr. 1
2 years in 10 later than--	Mar. 1	Mar. 13	Mar. 26
5 years in 10 later than--	Feb. 14	Mar. 1	Mar. 16
First freezing temperature in fall:			
1 year in 10 earlier than--	Nov. 24	Nov. 8	Oct. 26
2 years in 10 earlier than--	Dec. 3	Nov. 15	Nov. 2
5 years in 10 earlier than--	Dec. 21	Nov. 28	Nov. 14

Table 3.--Growing Season

[Recorded for the period 1971-2000 at Thomasville, 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	271	244	217
8 years in 10	285	254	225
5 years in 10	310	272	242
2 years in 10	336	291	259
1 year in 10	349	300	268

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: Urbo-Una-Mooreville	13	Poorly suited: flooding, wetness.	Poorly suited: flooding, wetness.	Suited: restricted use of equipment, seedling survival, plant competition.	Not suited: flooding, wetness.
2: Iuka-Bibb-Harleston	4	Poorly suited: flooding, wetness.	Suited: flooding, wetness.	Suited: restricted use of equipment, seedling survival, plant competition.	Poorly suited: flooding, wetness.
3: Lenoir-Izagora-Chrysler	2	Suited: flooding, wetness.	Suited: flooding, wetness.	Suited: restricted use of equipment, plant competition.	Poorly suited: flooding, wetness, restricted permeability.
4: Daleville-Jedburg-Ochlockone	2	Suited: flooding, wetness.	Suited: flooding, wetness.	Suited: restricted use of equipment, seedling survival, plant competition.	Poorly suited: flooding, wetness, restricted permeability.
5: Savannah-Malbis-Smithdale	2	Suited: hazard of erosion, wetness.	Well suited	Well suited	Suited: wetness, restricted permeability, slope.
6: Lucedale-Bama-Smithdale	5	Suited: hazard of erosion.	Well suited	Well suited	Well suited.
7: Smithdale-Wadley-Maubila	13	Not 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.

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				
8: Smithdale-Wadley-Boykin	5	Not 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.
9: Smithdale-Flomaton-Wadley	7	Not 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.
10: Prim-Suggsville-Brantley	9	Poorly suited: hazard of erosion, restricted use of equipment, rooting depth.	Poorly suited: hazard of erosion, restricted use of equipment, rooting depth.	Poorly suited: restricted use of equipment, seedling survival, hazard of erosion.	Poorly suited: depth to rock, slope, shrink-swell, restricted permeability.
11: Okeelala-Brantley-Smithdale	12	Not suited: hazard of erosion, restricted use of equipment.	Poorly suited: restricted use of equipment, hazard of erosion.	Suited: restricted use of equipment, hazard of erosion.	Poorly suited: slope, restricted permeability, low strength.
12: Luverne-Smithdale-Wadley	8	Not 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.
13: Arundel-Cantuche-Luverne	8	Not suited: restricted use of equipment, hazard of erosion, rooting depth.	Poorly suited: restricted use of equipment, hazard of erosion, rooting depth.	Poorly suited: restricted use of equipment, seedling survival, hazard of erosion.	Poorly suited: slope, depth to rock, shrink-swell, restricted permeability.
14: Luverne-Halso	10	Poorly suited: restricted use of equipment, hazard of erosion.	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.

Table 5.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
ArC	Arundel-Cantuche complex, 2 to 10 percent slopes	8,070	1.0
ArF	Arundel-Cantuche complex, 15 to 35 percent slopes	28,420	3.5
ArG	Arundel-Cantuche complex, 35 to 60 percent slopes	15,210	1.9
BaB	Bama fine sandy loam, 2 to 5 percent slopes	21,790	2.7
BoB	Brantley-Okeelala complex, 2 to 5 percent slopes	6,540	0.8
BoD	Brantley-Okeelala complex, 5 to 15 percent slopes	16,840	2.1
BoG	Brantley-Okeelala complex, 35 to 60 percent slopes	17,250	2.2
CaA	Cahaba fine sandy loam, 0 to 2 percent slopes, occasionally flooded	1,190	0.1
ChA	Chrysler loam, 0 to 2 percent slopes, rarely flooded	1,750	0.2
DaA	Daleville-Quitman complex, 0 to 2 percent slopes	4,260	0.5
EsA	Escambia fine sandy loam, 0 to 2 percent slopes	580	*
FaE	Flomaton-Smithdale-Wadley complex, 10 to 25 percent slopes	21,580	2.7
FlA	Fluvaquents, ponded	2,540	0.3
HaB	Halso fine sandy loam, 2 to 5 percent slopes	1,460	0.2
HaD2	Halso fine sandy loam, 5 to 15 percent slopes, eroded	3,550	0.4
HtA	Harleston loamy fine sand, 0 to 2 percent slopes	6,400	0.8
IBA	Iuka, Bibb, and Mantachie soils, 0 to 1 percent slopes, frequently flooded	57,350	7.2
IgA	Izagora fine sandy loam, 0 to 2 percent slopes, occasionally flooded	2,290	0.3
IjB	Izagora-Jedburg complex, gently undulating, occasionally flooded	11,930	1.5
JdA	Jedburg loam, 0 to 2 percent slopes, occasionally flooded	2,830	0.4
LaA	Latonia loamy sand, 0 to 2 percent slopes, occasionally flooded	2,300	0.3
LeA	Lenoir silt loam, 0 to 2 percent slopes, occasionally flooded	3,680	0.5
LmD	Lorman fine sandy loam, 5 to 15 percent slopes	1,890	0.2
LoF	Lorman-Toxey-Okeelala complex, 15 to 45 percent slopes	1,120	0.1
LsA	Lucedale sandy loam, 0 to 2 percent slopes	5,200	0.6
LuC	Lucedale-Bama-Urban land complex, 0 to 8 percent slopes	1,620	0.2
LvB	Luverne sandy loam, 2 to 5 percent slopes	15,320	1.9
LvD	Luverne sandy loam, 5 to 15 percent slopes	28,060	3.5
LvF	Luverne sandy loam, 15 to 35 percent slopes	47,740	6.0
LxD	Luverne-Urban land complex, 2 to 15 percent slopes	1,070	0.1
MaB	Malbis fine sandy loam, 1 to 5 percent slopes	8,330	1.0
MbF	Maubila-Wadley-Smithdale complex, 8 to 30 percent slopes	49,630	6.2
MdA	McCrory-Deerford complex, 0 to 2 percent slopes, occasionally flooded	1,770	0.2
MW	Miscellaneous water	240	*
MyA	Myatt fine sandy loam, 0 to 1 percent slopes, occasionally flooded	4,950	0.6
OcA	Ochlockonee sandy loam, 0 to 2 percent slopes, frequently flooded	4,160	0.5
OdB	Ocilla-Pelham complex, gently undulating	4,180	0.5
OkF	Okeelala-Brantley complex, 15 to 35 percent slopes	55,710	7.0
OmC	Olla-Maubila complex, 2 to 8 percent slopes	12,530	1.6
Pg	Pits	1,570	0.2
PrG	Prim-Eutrudepts complex, 35 to 60 percent slopes, very stony	5,600	0.7
PwC	Prim-Suggsville-Watsonia complex, 2 to 10 percent slopes	9,340	1.2
PwF	Prim-Suggsville-Watsonia complex, 10 to 40 percent slopes	20,040	2.5
RaD	Rayburn silt loam, 5 to 15 percent slopes	2,520	0.3
RvA	Riverview fine sandy loam, 0 to 2 percent slopes, occasionally flooded	4,630	0.6
SaA	Savannah fine sandy loam, 0 to 2 percent slopes	4,690	0.6
SbB	Smithdale-Boykin complex, 2 to 5 percent slopes	43,800	5.5
SbD	Smithdale-Boykin complex, 5 to 15 percent slopes	43,720	5.5
SsF	Smithdale-Saffell complex, 15 to 45 percent slopes	10,140	1.3
ToD	Toxey-Lorman complex, 5 to 15 percent slopes	4,750	0.6
UdC	Udorthents, dredged	390	*
UnA	Una clay, ponded	13,990	1.7
Ur	Urban land	1,040	0.1
UuB	Urbo-Mooreville-Una complex, gently undulating, frequently flooded	71,430	8.9
WaB	Wadley loamy sand, 1 to 5 percent slopes	2,600	0.3
WsF	Wadley-Smithdale complex, 15 to 35 percent slopes	65,730	8.2
W	Water	14,160	1.8
	Total	801,470	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					
Cantuche----------------	7s					
ArF:		---	---	---	---	---
Arundel-----------------	7e					
Cantuche----------------	7s					
ArG:		---	---	---	---	---
Arundel-----------------	7e					
Cantuche----------------	7s					
BaB:		120	800	3,000	35	35
Bama--------------------	2e					
BoB:		75	700	---	30	35
Brantley----------------	3e					
Okeelala----------------	2e					
BoD:		---	---	---	---	---
Brantley----------------	6e					
Okeelala----------------	4e					
BoG:		---	---	---	---	---
Brantley----------------	7e					
Okeelala----------------	7e					
CaA:		100	800	2,800	35	40
Cahaba------------------	2w					
ChA:		100	800	2,800	35	40
Chrysler----------------	2w					
DaA:		---	---	---	---	---
Daleville---------------	3w					
Quitman-----------------	2w					
EsA:		90	---	---	30	35
Escambia----------------	2w					
FaE:		---	---	---	---	---
Flomaton----------------	7s					
Smithdale---------------	7e					
Wadley------------------	7e					
FlA:		---	---	---	---	---
Fluvaquents-------------	7w					
HaB:		70	600	---	25	30
Halso-------------------	3e					
HaD2:		---	---	---	---	---
Halso-------------------	6e					
HtA:		90	700	---	30	35
Harleston---------------	2w					

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*
IBA:		---	---	---	---	---
Iuka-------------------	5w					
Bibb-------------------	5w					
Mantachie---------------	5w					
IgA:		100	750	2,800	40	50
Izagora-----------------	2w					
IjB:		80	500	2,500	30	40
Izagora-----------------	2w					
Jedburg-----------------	3w					
JdA:		80	600	---	30	30
Jedburg-----------------	3w					
LaA:		75	700	---	30	35
Latonia-----------------	2w					
LeA:		100	500	---	35	35
Lenoir------------------	3w					
LmD:		---	---	---	---	---
Lorman------------------	6e					
LoF:		---	---	---	---	---
Toxey-------------------	7e					
Lorman------------------	7e					
Okeelala----------------	7e					
LsA:		120	800	3,000	40	50
Lucedale----------------	1					
LuC:		---	---	---	---	---
Lucedale----------------	3e					
Bama--------------------	3e					
Urban land--------------	8s					
LvB:		75	550	2,500	30	40
Luverne-----------------	3e					
LvD:		---	---	---	---	---
Luverne-----------------	6e					
LvF:		---	---	---	---	---
Luverne-----------------	7e					
LxD:		---	---	---	---	---
Luverne-----------------	6e					
Urban land--------------	8s					
MaB:		100	800	2,800	35	40
Malbis------------------	2e					
MbF:		---	---	---	---	---
Maubila-----------------	7e					
Wadley------------------	7e					
Smithdale---------------	7e					
MdA:		---	---	---	---	---
McCrory-----------------	4w					
Deerford----------------	4w					

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*
MyA:		---	---	---	---	---
Myatt	4w					
OcA:		70	---	---	30	---
Ochlockonee	4w					
OdB:		---	---	---	---	---
Ocilla	3w					
Pelham	4w					
OkF:		---	---	---	---	---
Okeelala	7e					
Brantley	7e					
OmC:		70	500	1,800	25	---
Olla	3e					
Maubila	4e					
Pg:		---	---	---	---	---
Pits	8s					
PrG:		---	---	---	---	---
Prim	7s					
Eutrudepts	7e					
PwC:		---	---	---	---	---
Prim	6s					
Suggsville	4e					
Watsonia	6e					
PwF:		---	---	---	---	---
Prim	7s					
Suggsville	7e					
Watsonia	7e					
RaD:		---	---	---	---	---
Rayburn	6e					
RvA:		120	800	3,000	40	50
Riverview	2w					
SaA:		85	700	2,500	30	35
Savannah	2w					
SbB:		65	600	2,500	30	30
Smithdale	2e					
Boykin	2s					
SbD:		---	---	---	---	---
Smithdale	4e					
Boykin	4s					
SsF:		---	---	---	---	---
Smithdale	7e					
Saffell	7e					
ToD:		---	---	---	---	---
Toxey	6e					
Lorman	6e					
UdC:		---	---	---	---	---
Udorthents	4s					

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*
UnA:		---	---	---	---	---
Una----------------------	7w					
Ur:		---	---	---	---	---
Urban land--------------	8s					
UuB:		---	---	---	---	---
Urbo---------------------	5w					
Mooreville--------------	5w					
Una----------------------	7w					
WaB:		---	---	---	---	---
Wadley-------------------	3s					
WsF:		---	---	---	---	---
Wadley-------------------	7e					
Smithdale---------------	7e					

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 Cantuche	---	---	---	---	---
ArF---------------------- Arundel Cantuche	---	---	---	---	---
ArG---------------------- Arundel Cantuche	---	---	---	---	---
BaB---------------------- Bama	8.5	4.5	5	9.5	5.5
BoB---------------------- Brantley Okeelala	7	3.5	4	8	4.5
BoD---------------------- Brantley Okeelala	6	---	3	7	---
BoG---------------------- Brantley Okeelala	---	---	---	---	---
CaA---------------------- Cahaba	8.5	5	5	10	6
ChA---------------------- Chrysler	8.5	4.5	4.5	10	5.5
DaA---------------------- Daleville Quitman	6	---	---	5	---
EsA---------------------- Escambia	8	---	---	---	---
FaE---------------------- Flomaton Smithdale Wadley	---	---	---	---	---
FlA---------------------- Fluvaquents	---	---	---	---	---
HaB---------------------- Halso	6	3.5	4.5	7	4
HaD2--------------------- Halso	5	---	---	6	---
HtA---------------------- Harleston	8	3.5	4	8	4

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*
IBA---------------------- Iuka Bibb Mantachie	7	---	---	8	---
IgA---------------------- Izagora	8	3.5	4.5	9	4.5
IjB---------------------- Izagora Jedburg	7	3	4	7.5	4
JdA---------------------- Jedburg	7	3	4	7.5	4
LaA---------------------- Latonia	8	3.5	4.5	8	4.5
LeA---------------------- Lenoir	7	3	4	7.5	4
LmD---------------------- Lorman	5.5	3	3	6	3.5
LoF---------------------- Toxey Lorman Okeelala	---	---	---	---	---
LsA---------------------- Lucedale	8.5	5.5	5	10	6
LuC---------------------- Lucedale Bama Urban land	---	---	---	---	---
LvB---------------------- Luverne	7.5	4.5	4.5	8.5	4.5
LvD---------------------- Luverne	7	3	4	7.5	4
LvF---------------------- Luverne	---	---	---	---	---
LxD---------------------- Luverne Urban land	---	---	---	---	---
MaB---------------------- Malbis	8.5	4.5	4.5	9.5	5.5
MbF---------------------- Maubila Wadley Smithdale	---	---	---	---	---
MdA---------------------- McCrory Deerford	---	---	---	---	---

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*
MyA: Myatt	---	---	---	---	---
OcA: Ochlockonee	7	---	---	7	---
OdB: Ocilla, Pelham	---	---	---	---	---
OkF: Okeelala, Brantley	---	---	---	---	---
OmC: Olla, Maubila	7	---	---	7.5	---
Pg: Pits	---	---	---	---	---
PrG: Prim, Eutrudepts	---	---	---	---	---
PwC: Prim, Suggsville, Watsonia	6	---	---	6	---
PwF: Prim, Suggsville, Watsonia	---	---	---	---	---
RaD: Rayburn	7	3	4	7.5	4
RvA: Riverview	9	5	5	10	7
SaA: Savannah	8	3.5	4.5	8.5	4.5
SbB: Smithdale, Boykin	8	4	5	9	5
SbD: Smithdale, Boykin	7.5	3.5	4.5	8.5	4.5
SsF: Smithdale, Saffell	---	---	---	---	---
ToD: Toxey, Lorman	5	---	---	6	---
UdC: Udorthents	---	---	---	---	---

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*
UnA---------------------- Una	---	---	---	---	---
Ur----------------------- Urban land	---	---	---	---	---
UuB---------------------- Urbo Mooreville Una	7	---	---	7	---
WaB---------------------- Wadley	7	3	---	7	3.5
WsF---------------------- Wadley Smithdale	---	---	---	---	---

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
	Shortleaf pine	75	120	
Cantuche	Loblolly pine	75	101	Loblolly pine, longleaf pine
	Longleaf pine	65	67	
	Shortleaf pine	65	99	
ArF:				
Arundel	Loblolly pine	85	120	Loblolly pine, shortleaf pine
	Shortleaf pine	75	120	
Cantuche	Loblolly pine	75	101	Loblolly pine, longleaf pine
	Longleaf pine	65	67	
	Shortleaf pine	65	99	
ArG:				
Arundel	Loblolly pine	85	120	Loblolly pine, shortleaf pine
	Shortleaf pine	75	120	
Cantuche	Loblolly pine	75	101	Loblolly pine, longleaf pine
	Longleaf pine	65	67	
	Shortleaf pine	65	99	
BaB:				
Bama	Loblolly pine	90	129	Loblolly pine, longleaf pine
	Longleaf pine	80	100	
BoB:				
Brantley	Longleaf pine	70	79	Longleaf pine, loblolly pine, slash pine
	Loblolly pine	90	131	
	Shortleaf pine	75	120	
Okeelala	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	130	
BoD:				
Brantley	Longleaf pine	70	79	Longleaf pine, loblolly pine, slash pine
	Loblolly pine	90	131	
	Shortleaf pine	75	120	
Okeelala	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	130	
BoG:				
Brantley	Longleaf pine	70	79	Longleaf pine, loblolly pine, slash pine
	Loblolly pine	90	131	
	Shortleaf pine	75	120	
Okeelala	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	130	
CaA:				
Cahaba	Loblolly pine	95	142	Loblolly pine, slash pine, sweetgum, longleaf pine, cherrybark oak
	Slash pine	95	172	
	Shortleaf pine	80	130	
	Yellow-poplar	105	115	
	Sweetgum	95	122	
	Water oak	95	92	

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	
ChA:				
Chrysler----------------	Loblolly pine-------	90	131	Loblolly pine, sweetgum, yellow-poplar, cherrybark oak
	Shortleaf pine------	90	152	
	Sweetgum------------	95	122	
	Water oak-----------	85	80	
	Yellow-poplar-------	90	90	
	Cherrybark oak------	95	133	
DaA:				
Daleville---------------	Loblolly pine-------	95	142	Cherrybark oak, green ash, loblolly pine, sweetgum
	Sweetgum------------	90	65	
	Water oak-----------	85	80	
	Willow oak----------	80	74	
Quitman-----------------	Loblolly pine-------	90	136	American sycamore, loblolly pine, slash pine, sweetgum, yellow-poplar
	Slash pine----------	90	163	
	Sweetgum------------	95	116	
EsA:				
Escambia----------------	Loblolly pine-------	95	142	Loblolly pine, cherrybark oak, slash pine, sweetgum
	Sweetgum------------	90	106	
	Water oak-----------	90	86	
	Slash pine----------	95	142	
FaE:				
Flomaton----------------	Loblolly pine-------	70	93	Loblolly pine, longleaf pine, shortleaf pine, slash pine
	Longleaf pine-------	60	56	
	Shortleaf pine------	60	88	
	Slash pine----------	70	120	
Smithdale---------------	Loblolly pine-------	90	131	Loblolly pine, longleaf pine, slash pine
	Longleaf pine-------	70	77	
	Slash pine----------	90	153	
Wadley------------------	Loblolly pine-------	80	114	Longleaf pine, loblolly pine
	Longleaf pine-------	70	77	
	Slash pine----------	80	157	
FlA:				
Fluvaquents-------------	Baldcypress---------	80	100	Baldcypress, green ash
	Blackgum------------	---	---	
	Red maple-----------	---	---	
	Water tupelo--------	---	---	
HaB:				
Halso-------------------	Loblolly pine-------	85	120	Loblolly pine
	Shortleaf pine------	75	120	
HaD2:				
Halso-------------------	Loblolly pine-------	85	120	Loblolly pine
	Shortleaf pine------	75	120	
HtA:				
Harleston---------------	Loblolly pine-------	90	131	Loblolly pine, slash pine
	Shortleaf pine------	80	130	
	Sweetgum------------	100	138	

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	
IBA:				
Iuka	Eastern cottonwood	105	141	Eastern cottonwood, loblolly pine, yellow-poplar
	Loblolly pine	100	154	
	Sweetgum	100	138	
	Water oak	100	98	
Bibb	Loblolly pine	100	154	Loblolly pine, sweetgum
	Sweetgum	90	106	
	Water oak	90	86	
Mantachie	Cherrybark oak	100	151	Cherrybark oak, eastern cottonwood, green ash, loblolly pine, sweetgum
	Eastern cottonwood	90	103	
	Green ash	80	49	
	Loblolly pine	100	154	
	Sweetgum	95	122	
IgA:				
Izagora	Loblolly pine	95	142	Loblolly pine, sweetgum, yellow-poplar, cherrybark oak, American sycamore
	Sweetgum	100	138	
	Yellow-poplar	95	98	
	Water oak	95	92	
	Cherrybark oak	100	151	
IjB:				
Izagora	Loblolly pine	95	142	Loblolly pine, sweetgum, yellow-poplar, cherrybark oak, American sycamore
	Sweetgum	100	138	
	Yellow-poplar	95	98	
	Water oak	95	92	
	Cherrybark oak	100	151	
Jedburg	Loblolly pine	85	120	Loblolly pine, cherrybark oak, sweetgum, yellow-poplar
	Yellow-poplar	85	81	
	Sweetgum	90	106	
	Swamp chestnut oak	80	81	
	Water oak	80	79	
JdA:				
Jedburg	Loblolly pine	85	120	Loblolly pine, cherrybark oak, sweetgum, yellow-poplar
	Yellow-poplar	85	81	
	Sweetgum	90	106	
	Swamp chestnut oak	80	81	
	Water oak	80	79	
LaA:				
Latonia	Loblolly pine	90	131	Loblolly pine, slash pine, longleaf pine
	Longleaf pine	70	79	
	Slash pine	90	163	
LeA:				
Lenoir	Loblolly pine	90	131	Loblolly pine, sweetgum, slash pine, cherrybark oak
	Water oak	75	67	
	Sweetgum	80	79	
	Swamp chestnut oak	70	60	
LmD:				
Lorman	Loblolly pine	85	120	Loblolly pine, shortleaf pine
	Shortleaf pine	75	120	

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	
LoF:				
Lorman	Loblolly pine	85	120	Loblolly pine, shortleaf pine
	Shortleaf pine	75	120	
Toxey	Loblolly pine	80	110	Loblolly pine, slash pine
	Eastern redcedar	40	43	
Okeelala	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	130	
LsA:				
Lucedale	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	100	
	Slash pine	90	163	
LuC:				
Lucedale	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	100	
	Slash pine	90	163	
Bama	Loblolly pine	90	129	Loblolly pine, longleaf pine
	Longleaf pine	80	100	
Urban land.				
LvB:				
Luverne	Loblolly pine	90	131	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	70	79	
	Slash pine	90	131	
LvD:				
Luverne	Loblolly pine	90	131	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	70	79	
	Slash pine	90	131	
LvF:				
Luverne	Loblolly pine	88	131	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	70	79	
	Slash pine	70	131	
LxD:				
Luverne	Loblolly pine	90	129	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	70	79	
	Slash pine	70	120	
Urban land.				
MaB:				
Malbis	Loblolly pine	90	131	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	80	100	
	Slash pine	90	163	
MbF:				
Maubila	Loblolly pine	75	101	Loblolly pine, longleaf pine
	Shortleaf pine	70	110	
	Longleaf pine	65	67	

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	
MbF:				
Wadley	Loblolly pine	85	120	Longleaf pine, loblolly pine
	Longleaf pine	70	77	
	sand pine	75	63	
	Slash pine	85	153	
Smithdale	Loblolly pine	90	131	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	70	77	
	Slash pine	90	153	
MdA:				
McCrory	Water oak	95	92	Sweetgum, water oak, loblolly pine, slash pine
	Sweetgum	95	122	
	Slash pine	80	110	
	Loblolly pine	80	110	
Deerford	Loblolly pine	90	131	Loblolly pine, slash pine, water oak, cherrybark oak
	Sweetgum	90	106	
	Slash pine	90	163	
	Water oak	90	86	
	Willow oak	90	86	
MyA:				
Myatt	Loblolly pine	88	127	Loblolly pine, slash pine, sweetgum
	Slash pine	90	167	
	Sweetgum	90	112	
	Water oak	85	81	
OcA:				
Ochlockonee	American sycamore	110	157	American sycamore, loblolly pine, sweetgum, yellow-poplar
	Green ash	85	57	
	Loblolly pine	100	154	
	Sweetgum	110	173	
	Water oak	100	98	
	Yellow-poplar	110	124	
OdB:				
Ocilla	Sweetgum	80	80	Loblolly pine, sweetgum
	Water oak	75	67	
	Loblolly pine	90	131	
	Longleaf pine	75	90	
Pelham	Loblolly pine	90	131	Loblolly pine, sweetgum
	Blackgum	80	114	
	Sweetgum	80	80	
	Water oak	75	67	
OkF:				
Okeelala	Loblolly pine	90	131	Loblolly pine, longleaf pine
	Longleaf pine	80	130	
Brantley	Longleaf pine	70	79	Longleaf pine, loblolly pine, slash pine
	Loblolly pine	90	131	
	Shortleaf pine	75	120	
OmC:				
Olla	Loblolly pine	85	123	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	65	72	
	Slash pine	85	155	

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	
OmC:				
Maubila	Loblolly pine	75	101	Loblolly pine, longleaf pine
	Shortleaf pine	70	110	
	Longleaf pine	65	67	
Pg:				
Pits.				
PrG:				
Prim	Eastern redcedar	47	57	Eastern redcedar
Eutrudepts	Eastern redcedar	40	43	Eastern redcedar
	Loblolly pine	75	101	
PwC:				
Prim	Eastern redcedar	47	57	Eastern redcedar
Suggsville	Eastern redcedar	55	57	Loblolly pine
	Loblolly pine	90	131	
	Shortleaf pine	80	130	
	Southern red oak	80	62	
Watsonia	Eastern redcedar	40	43	Eastern redcedar
	Loblolly pine	75	101	
PwF:				
Prim	Eastern redcedar	47	57	Eastern redcedar
Suggsville	Eastern redcedar	55	57	Loblolly pine
	Loblolly pine	90	131	
	Shortleaf pine	80	130	
	Southern red oak	80	62	
Watsonia	Eastern redcedar	40	43	Eastern redcedar
	Loblolly pine	75	101	
RaD:				
Rayburn	Loblolly pine	90	131	Loblolly pine, slash pine
	Shortleaf pine	80	130	
RvA:				
Riverview	Green ash	85	57	American sycamore, eastern cottonwood, loblolly pine, slash pine, sweetgum, yellow-poplar
	Loblolly pine	100	154	
	Sweetgum	100	138	
	Water oak	100	98	
	Yellow-poplar	110	124	
SaA:				
Savannah	Loblolly pine	90	131	Loblolly pine, slash pine, sweetgum, longleaf pine, yellow-poplar
	Longleaf pine	80	100	
	Slash pine	90	163	
	Sweetgum	85	93	
SbB:				
Smithdale	Loblolly pine	90	131	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	70	77	
	Slash pine	90	153	

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	
SbB:				
Boykin	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Shortleaf pine	75	120	
	Longleaf pine	75	90	
	Slash pine	85	153	
SbD:				
Smithdale	Loblolly pine	90	131	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	70	77	
	Slash pine	90	153	
Boykin	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Shortleaf pine	75	120	
	Longleaf pine	75	90	
	Slash pine	85	153	
SsF:				
Smithdale	Loblolly pine	90	131	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	70	77	
	Slash pine	90	153	
Saffell	Loblolly pine	80	110	Loblolly pine, longleaf pine
	Longleaf pine	60	56	
ToD:				
Toxey	Loblolly pine	80	110	Loblolly pine, slash pine
	Eastern redcedar	40	43	
Lorman	Loblolly pine	85	120	Loblolly pine, shortleaf pine
	Shortleaf pine	75	120	
UdC:				
Udorthents	American sycamore	85	57	American sycamore, eastern cottonwood, green ash, loblolly pine
	Eastern cottonwood	105	143	
	Green ash	85	57	
	Loblolly pine	85	120	
UnA:				
Una	Baldcypress	80	57	Baldcypress, water tupelo
	Swamp tupelo	70	95	
	Water tupelo	70	95	
UuB:				
Urbo	Cherrybark oak	95	147	Green ash, loblolly pine, sweetgum
	Eastern cottonwood	105	141	
	Green ash	85	70	
	Loblolly pine	95	142	
	Sweetgum	95	132	
Mooreville	Cherrybark oak	100	151	Cherrybark oak, eastern cottonwood, green ash, loblolly pine, sweetgum, yellow-poplar
	Eastern cottonwood	105	141	
	Green ash	85	70	
	Loblolly pine	95	142	
	Sweetgum	100	138	
	Yellow-poplar	100	107	
Una	Baldcypress	80	57	Baldcypress, water tupelo
	Swamp tupelo	70	95	
	Water tupelo	70	95	

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	
WaB:				
Wadley	Loblolly pine	85	120	Longleaf pine, loblolly pine
	Longleaf pine	75	90	
	sand pine	75	63	
	Slash pine	85	153	
WsF:				
Wadley	Loblolly pine	85	120	Loblolly pine, longleaf pine
	Longleaf pine	75	90	
	sand pine	75	63	
	Slash pine	85	153	
Smithdale	Loblolly pine	86	123	Loblolly pine, longleaf pine, slash pine
	Longleaf pine	70	77	
	Slash pine	90	153	

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-------------	45	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Slope	0.50		
Cantuche------------	40	Slight		Moderately suited		Slight	
				Slope	0.50	Strength	0.10
ArF:							
Arundel-------------	45	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
				Low strength	0.50		
Cantuche------------	45	Moderate		Poorly suited		Slight	
		Slope	0.50	Slope	1.00	Strength	0.10
ArG:							
Arundel-------------	45	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
Cantuche------------	45	Severe		Poorly suited		Slight	
		Slope	1.00	Slope	1.00	Strength	0.10
BaB:							
Bama----------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
BoB:							
Brantley------------	60	Moderate		Well suited		Moderate	
		Low strength	0.50			Low strength	0.50
Okeelala------------	30	Slight		Well suited		Moderate	
						Low strength	0.50
BoD:							
Brantley------------	50	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
Okeelala------------	40	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
BoG:							
Brantley------------	60	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Low strength	0.50				
Okeelala------------	25	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	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
CaA:							
Cahaba	85	Moderate		Moderately suited		Moderate	
		Flooding	0.50	Flooding	0.50	Low strength	0.50
ChA:							
Chrysler	90	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
DaA:							
Daleville	50	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Low strength	0.50		
Quitman	35	Slight		Poorly suited		Moderate	
				Wetness	1.00	Low strength	0.50
EsA:							
Escambia	85	Slight		Moderately suited		Moderate	
				Wetness	0.50	Low strength	0.50
FaE:							
Flomaton	45	Moderate		Poorly suited		Slight	
		Slope	0.50	Slope	1.00	Strength	0.10
		Sandiness	0.50	Sandiness	0.50		
Smithdale	30	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Wadley	15	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
FlA:							
Fluvaquents	95	Severe		Poorly suited		Moderate	
		Flooding	1.00	Ponding	1.00	Wetness	0.50
		Wetness	1.00	Flooding	1.00	Low strength	0.50
		Low strength	0.50	Wetness	1.00		
HaB:							
Halso	85	Moderate		Well suited		Severe	
		Low strength	0.50			Low strength	1.00
HaD2:							
Halso	85	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
HtA:							
Harleston	90	Slight		Well suited		Moderate	
						Low strength	0.50
IBA:							
Iuka	40	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
				Wetness	0.50		

Table 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
IBA:							
Bibb----------------	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		
Mantachie-----------	20	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
				Wetness	0.50		
IgA:							
Izagora-------------	85	Moderate		Moderately suited		Severe	
		Flooding	0.50	Flooding	0.50	Low strength	1.00
				Low strength	0.50		
IjB:							
Izagora-------------	55	Moderate		Moderately suited		Severe	
		Flooding	0.50	Flooding	0.50	Low strength	1.00
				Low strength	0.50		
Jedburg-------------	35	Moderate		Poorly suited		Severe	
		Flooding	0.50	Wetness	1.00	Low strength	1.00
		Low strength	0.50	Flooding	0.50		
JdA:							
Jedburg-------------	85	Moderate		Poorly suited		Severe	
		Flooding	0.50	Wetness	1.00	Low strength	1.00
		Low strength	0.50	Flooding	0.50		
LaA:							
Latonia-------------	85	Moderate		Moderately suited		Moderate	
		Flooding	0.50	Flooding	0.50	Low strength	0.50
LeA:							
Lenoir--------------	90	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		
LmD:							
Lorman--------------	85	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
LoF:							
Lorman--------------	45	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
Toxey---------------	25	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Stickiness/slope	0.50	Low strength	0.50		
				Stickiness; high plasticity index	0.50		
Okeelala------------	15	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	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: 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
LsA:							
Lucedale	90	Slight		Well suited		Moderate	
						Low strength	0.50
LuC:							
Lucedale	35	Slight		Well suited		Moderate	
						Low strength	0.50
Bama	30	Slight		Well suited		Moderate	
						Low strength	0.50
Urban land	20	Not rated		Not rated		Not rated	
LvB:							
Luverne	90	Moderate		Well suited		Moderate	
		Low strength	0.50			Low strength	0.50
LvD:							
Luverne	85	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
LvF:							
Luverne	85	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
LxD:							
Luverne	55	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Slope	0.50	Low strength	0.50
Urban land	40	Not rated		Not rated		Not rated	
MaB:							
Malbis	90	Slight		Moderately suited		Moderate	
				Low strength	0.50	Low strength	0.50
MbF:							
Maubila	35	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Wadley	30	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Smithdale	20	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
MdA:							
McCrory	60	Moderate		Poorly suited		Severe	
		Flooding	0.50	Wetness	1.00	Low strength	1.00
		Low strength	0.50	Flooding	0.50		
				Low strength	0.50		
Deerford	30	Moderate		Poorly suited		Severe	
		Flooding	0.50	Wetness	1.00	Low strength	1.00
		Low strength	0.50	Flooding	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: 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
MyA:							
Myatt----------------	90	Moderate		Poorly suited		Severe	
		Flooding	0.50	Wetness	1.00	Low strength	1.00
		Low strength	0.50	Flooding	0.50		
				Low strength	0.50		
OcA:							
Ochlockonee---------	90	Severe		Poorly suited		Moderate	
		Flooding	1.00	Flooding	1.00	Low strength	0.50
		Low strength	0.50				
OdB:							
Ocilla--------------	50	Slight		Moderately suited		Moderate	
				Wetness	0.50	Low strength	0.50
Pelham--------------	35	Slight		Poorly suited		Moderate	
				Wetness	1.00	Low strength	0.50
OkF:							
Okeelala------------	50	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Brantley------------	35	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
OmC:							
Olla----------------	45	Slight		Well suited		Moderate	
						Low strength	0.50
Maubila-------------	40	Slight		Well suited		Moderate	
						Low strength	0.50
Pg:							
Pits----------------	90	Not rated		Not rated		Not rated	
PrG:							
Prim----------------	45	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
				Rock fragments	0.50		
				Low strength	0.50		
Eutrudepts----------	40	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
PwC:							
Prim----------------	40	Moderate		Moderately suited		Moderate	
		Low strength	0.50	Rock fragments	0.50	Low strength	0.50
				Low strength	0.50		
Suggsville----------	35	Moderate		Moderately suited		Severe	
		Stickiness/slope	0.50	Stickiness; high plasticity index	0.50	Low strength	1.00
		Low strength	0.50				
				Low strength	0.50		
				Slope	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
PwC:							
Watsonia------------	15	Moderate		Moderately suited		Severe	
		Stickiness/slope	0.50	Stickiness; high plasticity index	0.50	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
PwF:							
Prim----------------	50	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
				Rock fragments	0.50		
				Low strength	0.50		
Suggsville----------	20	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Stickiness/slope	0.50	Stickiness; high plasticity index	0.50		
				Low strength	0.50		
Watsonia------------	15	Moderate		Poorly suited		Severe	
		Slope	0.50	Slope	1.00	Low strength	1.00
		Stickiness/slope	0.50	Stickiness; high plasticity index	0.50		
				Low strength	0.50		
RaD:							
Rayburn-------------	85	Slight		Moderately suited		Severe	
				Slope	0.50	Low strength	1.00
				Low strength	0.50		
RvA:							
Riverview-----------	85	Moderate		Moderately suited		Moderate	
		Flooding	0.50	Flooding	0.50	Low strength	0.50
SaA:							
Savannah------------	90	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
				Wetness	0.50		
SbB:							
Smithdale-----------	60	Slight		Well suited		Moderate	
						Low strength	0.50
Boykin--------------	25	Slight		Well suited		Moderate	
						Low strength	0.50
SbD:							
Smithdale-----------	55	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
Boykin--------------	30	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
SsF:							
Smithdale-----------	50	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Saffell-------------	40	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	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
ToD:							
Toxey	50	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
				Stickiness; high plasticity index	0.50		
Lorman	35	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
UdC:							
Udorthents	95	Moderate		Moderately suited		Moderate	
		Flooding	0.50	Flooding	0.50	Low strength	0.50
UnA:							
Una	90	Severe		Poorly suited		Severe	
		Flooding	1.00	Ponding	1.00	Low strength	1.00
		Wetness	1.00	Flooding	1.00	Wetness	0.50
		Low strength	0.50	Wetness	1.00		
Ur:							
Urban land	95	Not rated		Not rated		Not rated	
UuB:							
Urbo	55	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
		Stickiness/slope	0.50	Stickiness; high plasticity index	0.50		
Mooreville	25	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
				Wetness	0.50		
Una	15	Severe		Poorly suited		Severe	
		Flooding	1.00	Ponding	1.00	Low strength	1.00
		Low strength	0.50	Flooding	1.00		
		Stickiness/slope	0.50	Wetness	1.00		
WaB:							
Wadley	90	Slight		Well suited		Moderate	
						Low strength	0.50
WsF:							
Wadley	60	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	Low strength	0.50
Smithdale	30	Moderate		Poorly suited		Moderate	
		Slope	0.50	Slope	1.00	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	45	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
						Slope	0.50
Cantuche	40	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
ArF:							
Arundel	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Cantuche	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
ArG:							
Arundel	45	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Cantuche	45	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
BaB:							
Bama	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
BoB:							
Brantley	60	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
Okeelala	30	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Sandiness	0.50
BoD:							
Brantley	50	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
Okeelala	40	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Sandiness	0.50
BoG:							
Brantley	60	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
Okeelala	25	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
						Sandiness	0.50
CaA:							
Cahaba	85	Slight		Slight		Moderately suited	
						Flooding	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
ChA:							
Chrysler	90	Slight		Slight		Moderately suited	
						Low strength	0.50
						Wetness	0.50
DaA:							
Daleville	50	Slight		Slight		Poorly suited	
						Wetness	1.00
						Low strength	0.50
Quitman	35	Slight		Slight		Poorly suited	
						Wetness	1.00
EsA:							
Escambia	85	Slight		Slight		Moderately suited	
						Wetness	0.50
FaE:							
Flomaton	45	Moderate		Moderate		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.50	Slope	1.00
						Sandiness	0.50
Smithdale	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Wadley	15	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
FlA:							
Fluvaquents	95	Slight		Slight		Poorly suited	
						Ponding	1.00
						Flooding	1.00
						Wetness	1.00
HaB:							
Halso	85	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
HaD2:							
Halso	85	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
HtA:							
Harleston	90	Slight		Slight		Well suited	
IBA:							
Iuka	40	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Wetness	0.50
Bibb	25	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
						Low strength	0.50
Mantachie	20	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Wetness	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
IgA:							
Izagora	85	Slight		Slight		Moderately suited	
						Flooding	0.50
						Low strength	0.50
IjB:							
Izagora	55	Slight		Slight		Moderately suited	
						Flooding	0.50
						Low strength	0.50
Jedburg	35	Slight		Slight		Poorly suited	
						Wetness	1.00
						Flooding	0.50
JdA:							
Jedburg	85	Slight		Slight		Poorly suited	
						Wetness	1.00
						Flooding	0.50
LaA:							
Latonia	85	Slight		Slight		Moderately suited	
						Flooding	0.50
LeA:							
Lenoir	90	Slight		Slight		Moderately suited	
						Flooding	0.50
						Low strength	0.50
						Wetness	0.50
LmD:							
Lorman	85	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
LoF:							
Lorman	45	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Toxey	25	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
						Stickiness; high plasticity index	0.50
Okeelala	15	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Sandiness	0.50
LsA:							
Lucedale	90	Slight		Slight		Well suited	
LuC:							
Lucedale	35	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
Bama	30	Slight		Moderate		Well suited	
				Slope/erodibility	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
LuC:							
Urban land	20	Not rated		Not rated		Not rated	
LvB:							
Luverne	90	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
LvD:							
Luverne	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
LvF:							
Luverne	85	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
LxD:							
Luverne	55	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
Urban land	40	Not rated		Not rated		Not rated	
MaB:							
Malbis	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
MbF:							
Maubila	35	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Wadley	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Smithdale	20	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
MdA:							
McCrory	60	Slight		Slight		Poorly suited	
						Wetness	1.00
						Flooding	0.50
						Low strength	0.50
Deerford	30	Slight		Slight		Poorly suited	
						Wetness	1.00
						Flooding	0.50
						Low strength	0.50
MyA:							
Myatt	90	Slight		Slight		Poorly suited	
						Wetness	1.00
						Flooding	0.50
						Low strength	0.50
OcA:							
Ochlockonee	90	Slight		Slight		Poorly suited	
						Flooding	1.00
OdB:							
Ocilla	50	Slight		Slight		Moderately suited	
						Wetness	0.50
Pelham	35	Slight		Slight		Poorly suited	
						Wetness	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
OkF:							
Okeelala	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Sandiness	0.50
Brantley	35	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
OmC:							
Olla	45	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
Maubila	40	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
Pg:							
Pits	90	Not rated		Not rated		Not rated	
PrG:							
Prim	45	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
						Rock fragments	0.50
						Low strength	0.50
Eutrudepts	40	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
PwC:							
Prim	40	Slight		Slight		Moderately suited	
						Rock fragments	0.50
						Low strength	0.50
Suggsville	35	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Stickiness; high plasticity index	0.50
						Low strength	0.50
						Slope	0.50
Watsonia	15	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Stickiness; high plasticity index	0.50
						Low strength	0.50
PwF:							
Prim	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Rock fragments	0.50
						Low strength	0.50
Suggsville	20	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Stickiness; high plasticity index	0.50
						Low strength	0.50
Watsonia	15	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
						Stickiness; high plasticity index	0.50
						Low strength	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
RaD:							
Rayburn	85	Moderate		Severe		Moderately suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
RvA:							
Riverview	85	Slight		Slight		Moderately suited	
						Flooding	0.50
SaA:							
Savannah	90	Slight		Slight		Moderately suited	
						Low strength	0.50
						Wetness	0.50
SbB:							
Smithdale	60	Slight		Slight		Well suited	
Boykin	25	Slight		Slight		Well suited	
SbD:							
Smithdale	55	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Boykin	30	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
SsF:							
Smithdale	50	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Saffell	40	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
ToD:							
Toxey	50	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
						Stickiness; high plasticity index	0.50
Lorman	35	Slight		Severe		Moderately suited	
				Slope/erodibility	0.95	Slope	0.50
						Low strength	0.50
UdC:							
Udorthents	95	Slight		Slight		Moderately suited	
						Flooding	0.50
UnA:							
Una	90	Slight		Slight		Poorly suited	
						Ponding	1.00
						Flooding	1.00
						Wetness	1.00
Ur:							
Urban land	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
UuB:							
Urbo----------------	55	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Stickiness; high plasticity index	0.50
Mooreville----------	25	Slight		Slight		Poorly suited	
						Flooding	1.00
						Low strength	0.50
						Wetness	0.50
Una-----------------	15	Slight		Slight		Poorly suited	
						Ponding	1.00
						Flooding	1.00
						Wetness	1.00
WaB:							
Wadley--------------	90	Slight		Slight		Well suited	
WsF:							
Wadley--------------	60	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00
Smithdale-----------	30	Moderate		Severe		Poorly suited	
		Slope/erodibility	0.50	Slope/erodibility	0.95	Slope	1.00

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		Suitability for mechanical planting		Suitability for use of harvesting equipment	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ArC:							
Arundel-------------	45	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		
Cantuche------------	40	Unsuited		Unsuited		Well suited	
		Restrictive layer	1.00	Rock fragments	1.00		
		Rock fragments	0.50	Restrictive layer	0.50		
				Slope	0.50		
ArF:							
Arundel-------------	45	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		
Cantuche------------	45	Unsuited		Unsuited		Moderately suited	
		Restrictive layer	1.00	Rock fragments	1.00	Slope	0.50
		Rock fragments	0.50	Slope	0.75		
				Restrictive layer	0.50		
ArG:							
Arundel-------------	45	Poorly suited		Unsuited		Poorly suited	
		Stickiness; high plasticity index	0.75	Slope	1.00	Slope	1.00
				Stickiness; high plasticity index	0.75	Low strength	0.50
		Slope	0.50				
Cantuche------------	45	Unsuited		Unsuited		Poorly suited	
		Restrictive layer	1.00	Slope	1.00	Slope	1.00
		Slope	0.50	Rock fragments	1.00		
		Rock fragments	0.50	Restrictive layer	0.50		
BaB:							
Bama----------------	90	Well suited		Well suited		Well suited	
BoB:							
Brantley------------	60	Well suited		Well suited		Well suited	
Okeelala------------	30	Moderately suited		Moderately suited		Moderately suited	
		Sandiness	0.50	Sandiness	0.50	Sandiness	0.50
BoD:							
Brantley------------	50	Well suited		Moderately suited		Well suited	
				Slope	0.50		
Okeelala------------	40	Moderately suited		Moderately suited		Moderately suited	
		Sandiness	0.50	Slope	0.50	Sandiness	0.50
				Sandiness	0.50		
BoG:							
Brantley------------	60	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00

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
BoG:							
Okeelala	25	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
		Sandiness	0.50	Sandiness	0.50	Sandiness	0.50
CaA:							
Cahaba	85	Well suited		Well suited		Well suited	
ChA:							
Chrysler	90	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
DaA:							
Daleville	50	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Quitman	35	Well suited		Well suited		Well suited	
EsA:							
Escambia	85	Well suited		Well suited		Well suited	
FaE:							
Flomaton	45	Moderately suited		Moderately suited		Moderately suited	
		Sandiness	0.50	Slope	0.50	Sandiness	0.50
				Rock fragments	0.50		
				Sandiness	0.50		
Smithdale	30	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
Wadley	15	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
FlA:							
Fluvaquents	95	Poorly suited		Poorly suited		Poorly suited	
		Wetness	0.75	Wetness	0.75	Wetness	1.00
HaB:							
Halso	85	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50		
HaD2:							
Halso	85	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50		
				Slope	0.50		
HtA:							
Harleston	90	Well suited		Well suited		Well suited	
IBA:							
Iuka	40	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Bibb	25	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Mantachie	20	Well suited		Well suited		Moderately suited	
						Low strength	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
IgA:							
Izagora	85	Well suited		Well suited		Moderately suited	
						Low strength	0.50
IjB:							
Izagora	55	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Jedburg	35	Well suited		Well suited		Well suited	
JdA:							
Jedburg	85	Well suited		Well suited		Well suited	
LaA:							
Latonia	85	Well suited		Well suited		Well suited	
LeA:							
Lenoir	90	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
LmD:							
Lorman	85	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		
LoF:							
Lorman	45	Poorly suited		Unsuited		Moderately suited	
		Stickiness; high plasticity index	0.75	Slope	1.00	Slope	0.50
				Stickiness; high plasticity index	0.75	Low strength	0.50
Toxey	25	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
Okeelala	15	Moderately suited		Unsuited		Moderately suited	
		Sandiness	0.50	Slope	1.00	Slope	0.50
		Slope	0.50	Sandiness	0.50	Sandiness	0.50
LsA:							
Lucedale	90	Well suited		Well suited		Well suited	
LuC:							
Lucedale	35	Well suited		Well suited		Well suited	
Bama	30	Well suited		Well suited		Well suited	
Urban land	20	Not rated		Not rated		Not rated	
LvB:							
Luverne	90	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	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
LvD:							
Luverne	85	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50		
				Slope	0.50		
LvF:							
Luverne	85	Moderately suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Slope	0.75	Slope	0.50
				Stickiness; high plasticity index	0.50		
LxD:							
Luverne	55	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50		
				Slope	0.50		
Urban land	40	Not rated		Not rated		Not rated	
MaB:							
Malbis	90	Well suited		Well suited		Moderately suited	
						Low strength	0.50
MbF:							
Maubila	35	Moderately suited		Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50	Slope	0.75		
				Rock fragments	0.50		
				Stickiness; high plasticity index	0.50		
Wadley	30	Well suited		Poorly suited		Well suited	
				Slope	0.75		
Smithdale	20	Well suited		Poorly suited		Well suited	
				Slope	0.75		
MdA:							
McCrory	60	Well suited		Well suited		Moderately suited	
						Low strength	0.50
Deerford	30	Well suited		Well suited		Moderately suited	
						Low strength	0.50
MyA:							
Myatt	90	Well suited		Well suited		Moderately suited	
						Low strength	0.50
OcA:							
Ochlockonee	90	Well suited		Well suited		Well suited	
OdB:							
Ocilla	50	Well suited		Well suited		Well suited	
Pelham	35	Well suited		Well suited		Well suited	
OkF:							
Okeelala	50	Moderately suited		Poorly suited		Moderately suited	
		Sandiness	0.50	Slope	0.75	Sandiness	0.50
				Sandiness	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
OkF:							
Brantley	35	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
OmC:							
Olla	45	Well suited		Moderately suited		Well suited	
				Slope	0.50		
Maubila	40	Moderately suited		Moderately suited		Well suited	
		Stickiness; high plasticity index	0.50	Rock fragments	0.50		
				Stickiness; high plasticity index	0.50		
				Slope	0.50		
Pg:							
Pits	90	Not rated		Not rated		Not rated	
PrG:							
Prim	45	Poorly suited		Unsuited		Poorly suited	
		Rock fragments	0.75	Slope	1.00	Slope	1.00
		Restrictive layer	0.50	Rock fragments	1.00	Rock fragments	0.50
		Slope	0.50			Low strength	0.50
Eutrudepts	40	Moderately suited		Unsuited		Poorly suited	
		Stickiness; high plasticity index	0.50	Slope	1.00	Slope	1.00
		Slope	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
				Rock fragments	0.50		
PwC:							
Prim	40	Poorly suited		Unsuited		Moderately suited	
		Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
		Restrictive layer	0.50			Low strength	0.50
Suggsville	35	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
				Slope	0.50	Stickiness; high plasticity index	0.50
Watsonia	15	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
PwF:							
Prim	50	Poorly suited		Unsuited		Moderately suited	
		Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
		Restrictive layer	0.50	Slope	1.00	Slope	0.50
						Low strength	0.50
Suggsville	20	Poorly suited		Unsuited		Moderately suited	
		Stickiness; high plasticity index	0.75	Slope	1.00	Slope	0.50
				Stickiness; high plasticity index	0.75	Low strength	0.50
						Stickiness; high plasticity index	0.50
Watsonia	15	Poorly suited		Unsuited		Moderately suited	
		Stickiness; high plasticity index	0.75	Slope	1.00	Slope	0.50
				Stickiness; high plasticity index	0.75	Low strength	0.50
						Stickiness; high plasticity index	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
RaD:							
Rayburn	85	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		
RvA:							
Riverview	85	Well suited		Well suited		Well suited	
SaA:							
Savannah	90	Well suited		Well suited		Moderately suited	
						Low strength	0.50
SbB:							
Smithdale	60	Well suited		Well suited		Well suited	
Boykin	25	Well suited		Well suited		Well suited	
SbD:							
Smithdale	55	Well suited		Moderately suited		Well suited	
				Slope	0.50		
Boykin	30	Well suited		Moderately suited		Well suited	
				Slope	0.50		
SsF:							
Smithdale	50	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
Saffell	40	Moderately suited		Poorly suited		Moderately suited	
		Rock fragments	0.50	Slope	0.75	Slope	0.50
				Rock fragments	0.75		
ToD:							
Toxey	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
Lorman	35	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
				Slope	0.50		
UdC:							
Udorthents	95	Well suited		Well suited		Well suited	
UnA:							
Una	90	Poorly suited		Poorly suited		Poorly suited	
		Wetness	0.75	Wetness	0.75	Wetness	1.00
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
						Stickiness; high plasticity index	0.50
Ur:							
Urban land	95	Not rated		Not rated		Not rated	

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
UuB:							
Urbo----------------	55	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
						Stickiness; high plasticity index	0.50
Mooreville----------	25	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
Una-----------------	15	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
						Stickiness; high plasticity index	0.50
WaB:							
Wadley--------------	90	Well suited		Well suited		Well suited	
WsF:							
Wadley--------------	60	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	Slope	0.50
Smithdale-----------	30	Well suited		Poorly suited		Moderately suited	
				Slope	0.75	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): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value
ArC:					
Arundel	45	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
Cantuche	40	Poorly suited		Poorly suited	
		Rock fragments	0.50	Rock fragments	0.50
		Restrictive layer	0.50		
ArF:					
Arundel	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
Cantuche	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50	Rock fragments	0.50
		Restrictive layer	0.50		
ArG:					
Arundel	45	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
		Stickiness; high plasticity index	0.50		
Cantuche	45	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
		Rock fragments	0.50	Rock fragments	0.50
		Restrictive layer	0.50		
BaB:					
Bama	90	Well suited		Well suited	
BoB:					
Brantley	60	Well suited		Well suited	
Okeelala	30	Well suited		Well suited	
BoD:					
Brantley	50	Well suited		Well suited	
Okeelala	40	Well suited		Well suited	
BoG:					
Brantley	60	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
Okeelala	25	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00

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
CaA:					
Cahaba	85	Well suited		Well suited	
ChA:					
Chrysler	90	Well suited		Well suited	
DaA:					
Daleville	50	Well suited		Well suited	
Quitman	35	Well suited		Well suited	
EsA:					
Escambia	85	Well suited		Well suited	
FaE:					
Flomaton	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Smithdale	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Wadley	15	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
FlA:					
Fluvaquents	95	Unsuited		Unsuited	
		Wetness	0.75	Wetness	1.00
HaB:					
Halso	85	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
HaD2:					
Halso	85	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
HtA:					
Harleston	90	Well suited		Well suited	
IBA:					
Iuka	40	Well suited		Well suited	
Bibb	25	Well suited		Well suited	
Mantachie	20	Well suited		Well suited	
IgA:					
Izagora	85	Well suited		Well suited	
IjB:					
Izagora	55	Well suited		Well suited	
Jedburg	35	Well suited		Well suited	
JdA:					
Jedburg	85	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
LaA:					
Latonia	85	Well suited		Well suited	
LeA:					
Lenoir	90	Well suited		Well suited	
LmD:					
Lorman	85	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
LoF:					
Lorman	45	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
Toxey	25	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
Okeelala	15	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
LsA:					
Lucedale	90	Well suited		Well suited	
LuC:					
Lucedale	35	Well suited		Well suited	
Bama	30	Well suited		Well suited	
Urban land	20	Not rated		Not rated	
LvB:					
Luverne	90	Well suited		Well suited	
LvD:					
Luverne	85	Well suited		Well suited	
LvF:					
Luverne	85	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
LxD:					
Luverne	55	Well suited		Well suited	
Urban land	40	Not rated		Not rated	
MaB:					
Malbis	90	Well suited		Well suited	
MbF:					
Maubila	35	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Wadley	30	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
MbF:					
Smithdale-----------	20	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
MdA:					
McCrory-------------	60	Well suited		Well suited	
Deerford------------	30	Well suited		Well suited	
MyA:					
Myatt---------------	90	Well suited		Well suited	
OcA:					
Ochlockonee---------	90	Well suited		Well suited	
OdB:					
Ocilla--------------	50	Well suited		Well suited	
Pelham--------------	35	Well suited		Well suited	
OkF:					
Okeelala------------	50	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Brantley------------	35	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
OmC:					
Olla----------------	45	Well suited		Well suited	
Maubila-------------	40	Well suited		Well suited	
Pg:					
Pits----------------	90	Not rated		Not rated	
PrG:					
Prim----------------	45	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
		Rock fragments	0.50		
Eutrudepts----------	40	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
		Stickiness; high plasticity index	0.50		
PwC:					
Prim----------------	40	Poorly suited		Well suited	
		Rock fragments	0.50		
Suggsville----------	35	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
Watsonia------------	15	Poorly suited		Well suited	
		Stickiness; high plasticity index	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
PwF:					
Prim	50	Poorly suited		Poorly suited	
		Rock fragments	0.50	Slope	0.50
		Slope	0.50		
Suggsville	20	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
Watsonia	15	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Stickiness; high plasticity index	0.50		
RaD:					
Rayburn	85	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
RvA:					
Riverview	85	Well suited		Well suited	
SaA:					
Savannah	90	Well suited		Well suited	
SbB:					
Smithdale	60	Well suited		Well suited	
Boykin	25	Well suited		Well suited	
SbD:					
Smithdale	55	Well suited		Well suited	
Boykin	30	Well suited		Well suited	
SsF:					
Smithdale	50	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Saffell	40	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
		Rock fragments	0.50		
ToD:					
Toxey	50	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
Lorman	35	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
UdC:					
Udorthents	95	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
UnA:					
Una	90	Unsuited		Unsuited	
		Wetness	0.75	Wetness	1.00
		Stickiness; high plasticity index	0.50		
Ur:					
Urban land	95	Not rated		Not rated	
UuB:					
Urbo	55	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
Mooreville	25	Well suited		Well suited	
Una	15	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
WaB:					
Wadley	90	Well suited		Well suited	
WsF:					
Wadley	60	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50
Smithdale	30	Poorly suited		Poorly suited	
		Slope	0.50	Slope	0.50

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		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ArC:							
Arundel	45	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	0.01
Cantuche	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Gravel content	0.47	Gravel content	0.47	Large stones content	1.00
		Large stones content	0.14	Large stones content	0.14	Gravel content	1.00
ArF:							
Arundel	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
						Depth to bedrock	0.01
Cantuche	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Gravel content	0.47	Gravel content	0.47	Large stones content	1.00
ArG:							
Arundel	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
						Depth to bedrock	0.01
Cantuche	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Gravel content	0.47	Gravel content	0.47	Large stones content	1.00
BaB:							
Bama	90	Not limited		Not limited		Somewhat limited	
						Slope	0.50
BoB:							
Brantley	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
						Slope	0.12
Okeelala	30	Not limited		Not limited		Somewhat limited	
						Slope	0.12

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
BoD:							
Brantley------------	50	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.60	Slow water movement	0.60	Slope	1.00
		Slope	0.16	Slope	0.16	Slow water movement	0.60
Okeelala------------	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
BoG:							
Brantley------------	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
Okeelala------------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
CaA:							
Cahaba--------------	85	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
ChA:							
Chrysler------------	90	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Slow water movement	0.96	Depth to saturated zone	0.98
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Slow water movement	0.96
		Slow water movement	0.96				
DaA:							
Daleville-----------	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
		Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
Quitman-------------	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
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
EsA:							
Escambia------------	85	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.88	Depth to saturated zone	1.00
		Slow water movement	0.85	Slow water movement	0.85	Slow water movement	0.85
FaE:							
Flomaton------------	45	Very limited		Very limited		Very limited	
		Gravel content	1.00	Gravel content	1.00	Gravel content	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.89	Too sandy	0.89	Too sandy	0.89
Smithdale-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.62	Too sandy	0.62	Too sandy	0.62

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
FaE:							
Wadley	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
FlA:							
Fluvaquents	95	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	Slow water movement	0.96	Ponding	1.00
HaB:							
Halso	85	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
						Slope	0.50
HaD2:							
Halso	85	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
HtA:							
Harleston	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.70	Too sandy	0.70	Too sandy	0.70
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
IBA:							
Iuka	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
Bibb	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
Mantachie	20	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
IgA:							
Izagora	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Slow water movement	0.96	Slow water movement	0.96
		Slow water movement	0.96	Depth to saturated zone	0.19	Flooding	0.60
		Depth to saturated zone	0.39			Depth to saturated zone	0.39
IjB:							
Izagora	55	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Slow water movement	0.96	Slow water movement	0.96
		Slow water movement	0.96	Depth to saturated zone	0.19	Flooding	0.60
		Depth to saturated zone	0.39			Depth to saturated zone	0.39

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
IjB:							
Jedburg	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	0.26	Flooding	0.60
		Slow water movement	0.26			Slow water movement	0.26
JdA:							
Jedburg	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Slow water movement	0.26	Flooding	0.60
		Slow water movement	0.26			Slow water movement	0.26
LaA:							
Latonia	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.79	Too sandy	0.79
		Too sandy	0.79			Flooding	0.60
LeA:							
Lenoir	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	0.96	Slow water movement	0.96
		Slow water movement	0.96			Flooding	0.60
LmD:							
Lorman	85	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
LoF:							
Lorman	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
Toxey	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
Okeelala	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
LsA:							
Lucedale	90	Not limited		Not limited		Not limited	
LuC:							
Lucedale	35	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Bama	30	Not limited		Not limited		Somewhat limited	
						Slope	0.50
Urban land	20	Not rated		Not rated		Not rated	

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
LvB:							
Luverne	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.26	Slow water movement	0.26	Slope	0.50
						Slow water movement	0.26
LvD:							
Luverne	85	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.26	Slow water movement	0.26	Slope	1.00
		Slope	0.01	Slope	0.01	Slow water movement	0.26
LvF:							
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
LxD:							
Luverne	55	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.26	Slow water movement	0.26	Slope	1.00
		Slope	0.04	Slope	0.04	Slow water movement	0.26
Urban land	40	Not rated		Not rated		Not rated	
MaB:							
Malbis	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
						Slope	0.12
MbF:							
Maubila	35	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
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Large stones content	0.68
Wadley	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
Smithdale	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
MdA:							
McCrory	60	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Slow water movement	0.96	Slow water movement	0.96
		Slow water movement	0.96			Flooding	0.60
Deerford	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Sodium content	1.00	Sodium content	1.00	Sodium content	1.00
		Flooding	1.00	Slow water movement	0.96	Slow water movement	0.96

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
MyA:							
Myatt	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	0.60	Slow water movement	0.60
		Slow water movement	0.60			Flooding	0.60
OcA:							
Ochlockonee	90	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.40	Flooding	1.00
OdB:							
Ocilla	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	0.94	Too sandy	0.94	Too sandy	0.94
Pelham	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
		Too sandy	0.92	Too sandy	0.92	Too sandy	0.92
OkF:							
Okeelala	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Brantley	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
OmC:							
Olla	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.60	Slow water movement	0.60	Slope	0.88
		Too sandy	0.22	Too sandy	0.22	Slow water movement	0.60
						Too sandy	0.22
Maubila	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Slope	0.88
						Large stones content	0.68
Pg:							
Pits	90	Not rated		Not rated		Not rated	
PrG:							
Prim	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Large stones content	0.16	Large stones content	0.16	Large stones content	1.00
Eutrudepts	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	1.00	Slow water movement	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
PwC:							
Prim	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Large stones content	0.16	Large stones content	0.16	Large stones content	1.00
						Gravel content	0.88
Suggsville	35	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
Watsonia	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
PwF:							
Prim	50	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Large stones content	0.16	Large stones content	0.16	Large stones content	1.00
Suggsville	20	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
Watsonia	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Slow water movement	1.00	Slow water movement	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slow water movement	1.00
RaD:							
Rayburn	85	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
RvA:							
Riverview	85	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
SaA:							
Savannah	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Slow water movement	0.26	Slow water movement	0.26	Slow water movement	0.26
SbB:							
Smithdale	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.62	Too sandy	0.62	Too sandy	0.62
						Slope	0.50

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
SbB:							
Boykin	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.42	Too sandy	0.42	Too sandy	0.42
						Slope	0.12
SbD:							
Smithdale	55	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.62	Too sandy	0.62	Slope	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.62
Boykin	30	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.42	Too sandy	0.42	Slope	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.42
SsF:							
Smithdale	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Saffell	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Gravel content	0.96
ToD:							
Toxey	50	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
Lorman	35	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
UdC:							
Udorthents	95	Not rated		Not rated		Not rated	
UnA:							
Una	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	Slow water movement	1.00	Ponding	1.00
Ur:							
Urban land	95	Not rated		Not rated		Not rated	
UuB:							
Urbo	55	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Slow water movement	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Too clayey	1.00	Flooding	1.00
		Slow water movement	1.00	Depth to saturated zone	0.99	Slow water movement	1.00
Mooreville	25	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

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
UuB:							
Una	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Slow water movement	1.00	Flooding	1.00
		Slow water movement	1.00	Too clayey	1.00	Slow water movement	1.00
WaB:							
Wadley	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
						Slope	0.12
WsF:							
Wadley	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
Smithdale	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.62	Too sandy	0.62	Too sandy	0.62

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: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
ArC:							
Arundel	45	Not limited		Not limited		Somewhat limited	
						Depth to bedrock	0.01
Cantuche	40	Somewhat limited		Somewhat limited		Very limited	
		Large stones content	0.14	Large stones content	0.14	Depth to bedrock	1.00
						Droughty	1.00
						Large stones content	1.00
ArF:							
Arundel	45	Somewhat limited		Not limited		Very limited	
		Slope	0.32			Slope	1.00
						Depth to bedrock	0.01
Cantuche	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Large stones content	0.14	Depth to bedrock	1.00
		Large stones content	0.14			Slope	1.00
						Droughty	1.00
ArG:							
Arundel	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Depth to bedrock	0.01
Cantuche	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Large stones content	0.14	Large stones content	0.14	Slope	1.00
						Droughty	1.00
BaB:							
Bama	90	Not limited		Not limited		Not limited	
BoB:							
Brantley	60	Not limited		Not limited		Not limited	
Okeelala	30	Not limited		Not limited		Not limited	
BoD:							
Brantley	50	Not limited		Not limited		Somewhat limited	
						Slope	0.16
Okeelala	40	Not limited		Not limited		Somewhat limited	
						Slope	0.16
BoG:							
Brantley	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Okeelala	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
CaA:							
Cahaba	85	Not limited		Not limited		Somewhat limited	
						Flooding	0.60

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
ChA:							
Chrysler------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
DaA:							
Daleville-----------	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
Quitman-------------	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
EsA:							
Escambia------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.73	Depth to saturated zone	0.73	Depth to saturated zone	0.88
FaE:							
Flomaton------------	45	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.89	Too sandy	0.89	Gravel content	1.00
						Droughty	1.00
						Slope	1.00
Smithdale-----------	30	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.62	Too sandy	0.62	Slope	1.00
		Slope	0.50				
Wadley--------------	15	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.81	Too sandy	0.81	Slope	1.00
		Slope	0.50			Droughty	0.20
FlA:							
Fluvaquents---------	95	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
HaB:							
Halso---------------	85	Not limited		Not limited		Not limited	
HaD2:							
Halso---------------	85	Not limited		Not limited		Somewhat limited	
						Slope	0.16
HtA:							
Harleston-----------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.70	Too sandy	0.70	Depth to saturated zone	0.19
IBA:							
Iuka----------------	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

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
IBA:							
Bibb----------------	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
Mantachie-----------	20	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
IgA:							
Izagora-------------	85	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
						Depth to saturated zone	0.19
IjB:							
Izagora-------------	55	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
						Depth to saturated zone	0.19
Jedburg-------------	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
JdA:							
Jedburg-------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
LaA:							
Latonia-------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.79	Too sandy	0.79	Flooding	0.60
LeA:							
Lenoir--------------	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	0.60
LmD:							
Lorman--------------	85	Not limited		Not limited		Somewhat limited	
						Slope	0.16
LoF:							
Lorman--------------	45	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Slope	1.00
Toxey---------------	25	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
Okeelala------------	15	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.78	Slope	1.00
LsA:							
Lucedale------------	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
LuC:							
Lucedale	35	Not limited		Not limited		Not limited	
Bama	30	Not limited		Not limited		Not limited	
Urban land	20	Not rated		Not rated		Not rated	
LvB:							
Luverne	90	Not limited		Not limited		Not limited	
LvD:							
Luverne	85	Not limited		Not limited		Somewhat limited	
						Slope	0.01
LvF:							
Luverne	85	Very limited		Not limited		Very limited	
		Slope	1.00			Slope	1.00
LxD:							
Luverne	55	Not limited		Not limited		Somewhat limited	
						Slope	0.04
Urban land	40	Not rated		Not rated		Not rated	
MaB:							
Malbis	90	Not limited		Not limited		Not limited	
MbF:							
Maubila	35	Somewhat limited		Not limited		Very limited	
		Slope	0.32			Slope	1.00
						Large stones content	0.68
						Depth to saturated zone	0.19
Wadley	30	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.81	Too sandy	0.81	Slope	1.00
		Slope	0.32			Droughty	0.20
Smithdale	20	Somewhat limited		Not limited		Very limited	
		Slope	0.32			Slope	1.00
MdA:							
McCrory	60	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Flooding	0.60
Deerford	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Sodium content	1.00
						Depth to saturated zone	1.00
						Flooding	0.60
MyA:							
Myatt	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	0.60

Table 10b.--Recreation (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
OcA:							
Ochlockonee	90	Somewhat limited		Somewhat limited		Very limited	
		Flooding	0.40	Flooding	0.40	Flooding	1.00
OdB:							
Ocilla	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	0.94	Too sandy	0.94	Droughty	0.39
Pelham	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
		Too sandy	0.92	Too sandy	0.92	Droughty	0.29
OkF:							
Okeelala	50	Very limited		Not limited		Very limited	
		Slope	1.00			Slope	1.00
Brantley	35	Very limited		Not limited		Very limited	
		Slope	1.00			Slope	1.00
OmC:							
Olla	45	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.22	Too sandy	0.22		
Maubila	40	Not limited		Not limited		Somewhat limited	
						Large stones content	0.68
						Depth to saturated zone	0.19
						Droughty	0.01
Pg:							
Pits	90	Not rated		Not rated		Not rated	
PrG:							
Prim	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Large stones content	0.16	Large stones content	0.16	Slope	1.00
						Droughty	1.00
Eutrudepts	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Depth to bedrock	0.46
PwC:							
Prim	40	Somewhat limited		Somewhat limited		Very limited	
		Large stones content	0.16	Large stones content	0.16	Depth to bedrock	1.00
						Droughty	1.00
						Carbonate content	1.00
Suggsville	35	Very limited		Very limited		Very limited	
		Too clayey	1.00	Too clayey	1.00	Too clayey	1.00
Watsonia	15	Very limited		Very limited		Very limited	
		Too clayey	1.00	Too clayey	1.00	Depth to bedrock	1.00
						Too clayey	1.00
						Droughty	0.99

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
PwF:							
Prim----------------	50	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.22	Depth to bedrock	1.00
		Large stones content	0.16	Large stones content	0.16	Droughty	1.00
						Carbonate content	1.00
Suggsville----------	20	Very limited		Very limited		Very limited	
		Slope	1.00	Too clayey	1.00	Slope	1.00
		Too clayey	1.00	Slope	0.22	Too clayey	1.00
Watsonia------------	15	Very limited		Very limited		Very limited	
		Slope	1.00	Too clayey	1.00	Depth to bedrock	1.00
		Too clayey	1.00	Slope	0.22	Slope	1.00
						Too clayey	1.00
RaD:							
Rayburn-------------	85	Very limited		Very limited		Somewhat limited	
		Water erosion	1.00	Water erosion	1.00	Slope	0.16
RvA:							
Riverview-----------	85	Not limited		Not limited		Somewhat limited	
						Flooding	0.60
SaA:							
Savannah------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
SbB:							
Smithdale-----------	60	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.62	Too sandy	0.62		
Boykin--------------	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.42	Too sandy	0.42	Droughty	0.09
SbD:							
Smithdale-----------	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.62	Too sandy	0.62	Slope	0.16
Boykin--------------	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.42	Too sandy	0.42	Slope	0.16
						Droughty	0.09
SsF:							
Smithdale-----------	50	Somewhat limited		Not limited		Very limited	
		Slope	0.50			Slope	1.00
Saffell-------------	40	Very limited		Not limited		Very limited	
		Slope	1.00			Slope	1.00
						Droughty	0.28
ToD:							
Toxey---------------	50	Not limited		Not limited		Somewhat limited	
						Slope	0.16
Lorman--------------	35	Not limited		Not limited		Somewhat limited	
						Slope	0.16

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
UdC:							
Udorthents----------	95	Not rated		Not rated		Somewhat limited	
						Flooding	0.60
						Droughty	0.01
UnA:							
Una-----------------	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Flooding	1.00
		Too clayey	1.00	Too clayey	1.00	Depth to saturated zone	1.00
Ur:							
Urban land----------	95	Not rated		Not rated		Not rated	
UuB:							
Urbo----------------	55	Very limited		Very limited		Very limited	
		Too clayey	1.00	Too clayey	1.00	Flooding	1.00
		Depth to saturated zone	0.98	Depth to saturated zone	0.98	Too clayey	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.99
Mooreville----------	25	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
Una-----------------	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Too clayey	1.00	Too clayey	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Too clayey	1.00
WaB:							
Wadley--------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.20
WsF:							
Wadley--------------	60	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.81	Too sandy	0.81	Slope	1.00
		Slope	0.50			Droughty	0.20
Smithdale-----------	30	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.62	Too sandy	0.62	Slope	1.00
		Slope	0.50				

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: 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
ArC:										
Arundel	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Cantuche	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Very poor	Poor	Very poor	Very poor
ArF:										
Arundel	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Cantuche	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Very poor	Poor	Very poor	Very poor
ArG:										
Arundel	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Cantuche	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Very poor	Poor	Very poor	Very poor
BaB:										
Bama	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
BoB:										
Brantley	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Okeelala	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
BoD:										
Brantley	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Okeelala	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
BoG:										
Brantley	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Okeelala	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
CaA:										
Cahaba	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
ChA:										
Chrysler	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
DaA:										
Daleville	Poor	Fair	Fair	Good	Fair	Good	Good	Fair	Poor	Good
Quitman	Good	Good	Good	Good	Good	Fair	Poor	Good	Good	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
EsA:										
Escambia-----	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
FaE:										
Flomaton-----	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Very poor	Poor	Very poor	Very poor
Smithdale----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Wadley-------	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
FlA:										
Fluvaquents--	Very poor	Poor	Poor	Very poor	Very poor	Good	Good	Poor	Poor	Good
HaB:										
Halso--------	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
HaD2:										
Halso--------	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
HtA:										
Harleston----	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
IBA:										
Iuka---------	Poor	Fair	Fair	Good	Good	Poor	Poor	Fair	Good	Poor
Bibb---------	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good
Mantachie----	Poor	Fair	Fair	Good	Fair	Fair	Fair	Fair	Good	Fair
IgA:										
Izagora------	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
IjB:										
Izagora------	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Jedburg------	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
JdA:										
Jedburg------	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
LaA:										
Latonia------	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
LeA:										
Lenoir-------	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair
LmD:										
Lorman-------	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
LoF:										
Lorman-------	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	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
LoF:										
Toxey	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor
Okeelala	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
LsA:										
Lucedale	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
LuC:										
Lucedale	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Bama	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Urban land.										
LvB:										
Luverne	Good	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
LvF:										
Luverne	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
LxD:										
Luverne	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Urban land.										
MaB:										
Malbis	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
MbF:										
Maubila	Poor	Poor	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Wadley	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
Smithdale	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
MdA:										
Mccrory	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair
Deerford	Fair	Good	Good	Fair	Good	Fair	Fair	Fair	Fair	Fair
MyA:										
Myatt	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good

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
OcA:										
Ochlockonee--	Poor	Fair	Fair	Good	Good	Poor	Very poor	Fair	Good	Very poor
OdB:										
Ocilla-------	Fair	Fair	Good	Fair	Good	Fair	Fair	Fair	Good	Fair
Pelham-------	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
OkF:										
Okeelala-----	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Brantley-----	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor
OmC:										
Olla---------	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Maubila------	Fair	Fair	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Pg:										
Pits---------	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor
PrG:										
Prim---------	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Eutrudepts---	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Very poor	Very poor
PwC:										
Prim---------	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Suggsville---	Fair	Fair	Fair	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Watsonia-----	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor
PwF:										
Prim---------	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Suggsville---	Fair	Fair	Fair	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Watsonia-----	Poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
RaD:										
Rayburn------	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
RvA:										
Riverview----	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
SaA:										
Savannah-----	Good	Good	Good	Good	Good	Poor	Poor	Good	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
SbB:										
Smithdale----	Good	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Boykin-------	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
SbD:										
Smithdale----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Boykin-------	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
SsF:										
Smithdale----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Saffell------	Very poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
ToD:										
Toxey--------	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Fair	Poor
Lorman-------	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
UdC:										
Udorthents---	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Fair
UnA:										
Una----------	Poor	Very poor	Very poor	Poor	Poor	Good	Good	Very poor	Very poor	Good
Ur:										
Urban land.										
UuB:										
Urbo---------	Poor	Fair	Fair	Good	Good	Fair	Fair	Fair	Fair	Fair
Mooreville---	Poor	Fair	Fair	Good	Good	Poor	Poor	Fair	Good	Poor
Una----------	Poor	Very poor	Very poor	Poor	Poor	Good	Good	Very poor	Very poor	Good
WaB:										
Wadley-------	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
WsF:										
Wadley-------	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
Smithdale----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	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-------------	45	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
				Depth to soft bedrock	0.01	Slope	0.50
Cantuche------------	40	Very limited		Very limited		Very limited	
		Large stones content	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Depth to soft bedrock	0.50	Large stones content	1.00	Large stones content	1.00
						Slope	0.50
ArF:							
Arundel-------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
				Depth to soft bedrock	0.01		
Cantuche------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Large stones content	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Depth to soft bedrock	0.50	Large stones content	1.00	Large stones content	1.00
ArG:							
Arundel-------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
				Depth to soft bedrock	0.01		
Cantuche------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Large stones content	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Depth to soft bedrock	0.50	Large stones content	1.00	Large stones content	1.00
BaB:							
Bama----------------	90	Not limited		Not limited		Not limited	
BoB:							
Brantley------------	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Okeelala------------	30	Not limited		Not limited		Not limited	
BoD:							
Brantley------------	50	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Slope	1.00
		Slope	0.16	Slope	0.16	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
BoD:							
Okeelala------------	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
BoG:							
Brantley------------	60	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
Okeelala------------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
CaA:							
Cahaba--------------	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
ChA:							
Chrysler------------	90	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
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
DaA:							
Daleville-----------	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
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Quitman-------------	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
EsA:							
Escambia------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
FaE:							
Flomaton------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Smithdale-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Wadley--------------	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
FlA:							
Fluvaquents---------	95	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
HaB:							
Halso---------------	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00

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
HaD2:							
Halso---------------	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
HtA:							
Harleston-----------	90	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
IBA:							
Iuka----------------	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
Bibb----------------	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
Mantachie-----------	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
IgA:							
Izagora-------------	85	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
				Shrink-swell	0.50		
IjB:							
Izagora-------------	55	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
				Shrink-swell	0.50		
Jedburg-------------	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
JdA:							
Jedburg-------------	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
LaA:							
Latonia-------------	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
LeA:							
Lenoir--------------	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
		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
LmD:							
Lorman--------------	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
LoF:							
Lorman--------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
Toxey---------------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
Okeelala------------	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
LsA:							
Lucedale------------	90	Not limited		Not limited		Not limited	
LuC:							
Lucedale------------	35	Not limited		Not limited		Not limited	
Bama----------------	30	Not limited		Not limited		Not limited	
Urban land----------	20	Not rated		Not rated		Not rated	
LvB:							
Luverne-------------	90	Somewhat limited		Not limited		Somewhat limited	
		Shrink-swell	0.50			Shrink-swell	0.50
LvD:							
Luverne-------------	85	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Slope	0.01	Slope	1.00
		Slope	0.01			Shrink-swell	0.50
LvF:							
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
LxD:							
Luverne-------------	55	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Slope	0.04	Slope	1.00
		Slope	0.04			Shrink-swell	0.50
Urban land----------	40	Not rated		Not rated		Not rated	
MaB:							
Malbis--------------	90	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.66		
MbF:							
Maubila-------------	35	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	1.00	Slope	1.00
		Shrink-swell	0.50	Slope	1.00	Shrink-swell	0.50
		Depth to saturated zone	0.39	Shrink-swell	0.50	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
MbF:							
Wadley	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Smithdale	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
MdA:							
McCrory	60	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
Deerford	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
MyA:							
Myatt	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
OcA:							
Ochlockonee	90	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.95		
OdB:							
Ocilla	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
Pelham	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
OkF:							
Okeelala	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Brantley	35	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
OmC:							
Olla	45	Not limited		Somewhat limited		Somewhat limited	
				Shrink-swell	0.50	Slope	0.12
Maubila	40	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	1.00	Shrink-swell	0.50
		Depth to saturated zone	0.39	Shrink-swell	0.50	Depth to saturated zone	0.39
						Slope	0.12
Pg:							
Pits	90	Not rated		Not rated		Not rated	

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
PrG:							
Prim	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Large stones content	0.92	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Shrink-swell	0.50	Large stones content	0.92	Large stones content	0.92
Eutrudepts	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
				Depth to soft bedrock	0.46		
PwC:							
Prim	40	Somewhat limited		Very limited		Somewhat limited	
		Large stones content	0.92	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Shrink-swell	0.50	Large stones content	0.92	Large stones content	0.92
		Depth to soft bedrock	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Suggsville	35	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
						Slope	0.50
Watsonia	15	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Depth to soft bedrock	1.00
		Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Shrink-swell	1.00
						Slope	0.12
PwF:							
Prim	50	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
		Large stones content	0.92	Slope	1.00	Depth to soft bedrock	1.00
		Shrink-swell	0.50	Large stones content	0.92	Large stones content	0.92
Suggsville	20	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
Watsonia	15	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Slope	1.00
		Slope	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Depth to soft bedrock	0.50	Slope	1.00	Shrink-swell	1.00
RaD:							
Rayburn	85	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
		Slope	0.16	Depth to saturated zone	0.95	Slope	1.00
				Slope	0.16		

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
RvA:							
Riverview-----------	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.95		
SaA:							
Savannah------------	90	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.98	Depth to saturated zone	1.00	Depth to saturated zone	0.98
SbB:							
Smithdale-----------	60	Not limited		Not limited		Not limited	
Boykin--------------	25	Not limited		Not limited		Not limited	
SbD:							
Smithdale-----------	55	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
Boykin--------------	30	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
SsF:							
Smithdale-----------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Saffell-------------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
ToD:							
Toxey---------------	50	Very limited		Somewhat limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	0.50	Shrink-swell	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
Lorman--------------	35	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
		Slope	0.16	Slope	0.16	Slope	1.00
UdC:							
Udorthents----------	95	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.15		
UnA:							
Una-----------------	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
Ur:							
Urban land----------	95	Not rated		Not rated		Not rated	
UuB:							
Urbo----------------	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
		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
UuB:							
Mooreville----------	25	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
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Una-----------------	15	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
WaB:							
Wadley--------------	90	Not limited		Not limited		Not limited	
WsF:							
Wadley--------------	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Smithdale-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

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	45	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.94	Depth to bedrock	0.01
		Shrink-swell	1.00	Cutbanks cave	0.10		
				Depth to soft bedrock	0.01		
Cantuche	40	Very limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
						Droughty	1.00
		Large stones content	1.00	Large stones content	1.00	Large stones content	1.00
				Cutbanks cave	0.10		
ArF:							
Arundel	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.94	Depth to bedrock	0.01
		Shrink-swell	1.00	Cutbanks cave	0.10		
Cantuche	45	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Depth to soft bedrock	1.00			Slope	1.00
				Slope	1.00	Droughty	1.00
		Large stones content	1.00	Large stones content	1.00		
ArG:							
Arundel	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.94	Depth to bedrock	0.01
		Shrink-swell	1.00	Cutbanks cave	0.10		
Cantuche	45	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Depth to soft bedrock	1.00			Slope	1.00
				Slope	1.00	Droughty	1.00
		Large stones content	1.00	Large stones content	1.00		
BaB:							
Bama	90	Somewhat limited		Somewhat limited		Not limited	
		Low strength	0.22	Cutbanks cave	0.10		
BoB:							
Brantley	60	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.12		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Okeelala	30	Very limited		Very limited		Not limited	
		Low strength	1.00	Cutbanks cave	1.00		

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
BoD:							
Brantley------------	50	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Shrink-swell	0.50	Too clayey	0.12		
		Slope	0.16	Cutbanks cave	0.10		
Okeelala------------	40	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Cutbanks cave	1.00	Slope	0.16
		Slope	0.16	Slope	0.16		
BoG:							
Brantley------------	60	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		
Okeelala------------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	1.00		
CaA:							
Cahaba--------------	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Flooding	0.60	Flooding	0.60
		Low strength	0.78	Cutbanks cave	0.10		
ChA:							
Chrysler------------	90	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Too clayey	0.28		
		Shrink-swell	0.50	Cutbanks cave	0.10		
DaA:							
Daleville-----------	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
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
Quitman-------------	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
		Low strength	0.22	Cutbanks cave	0.10		
EsA:							
Escambia------------	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.88	Depth to saturated zone	1.00	Depth to saturated zone	0.88
				Cutbanks cave	0.10		
FaE:							
Flomaton------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Gravel content	1.00
				Slope	1.00	Droughty	1.00
						Slope	1.00
Smithdale-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	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
FaE:							
Wadley	15	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.20
FlA:							
Fluvaquents	95	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
HaB:							
Halso	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.88		
		Shrink-swell	1.00	Cutbanks cave	0.10		
HaD2:							
Halso	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.88	Slope	0.16
		Shrink-swell	1.00	Slope	0.16		
		Slope	0.16	Cutbanks cave	0.10		
HtA:							
Harleston	90	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.19	Depth to saturated zone	1.00	Depth to saturated zone	0.19
				Cutbanks cave	0.10		
IBA:							
Iuka	40	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Depth to saturated zone	0.75	Cutbanks cave	1.00	Depth to saturated zone	0.75
				Flooding	0.80		
Bibb	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
				Cutbanks cave	0.10		
Mantachie	20	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		
IgA:							
Izagora	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Low strength	1.00	Flooding	0.60	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	Cutbanks cave	0.10		
IjB:							
Izagora	55	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Low strength	1.00	Flooding	0.60	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	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
IjB:							
Jedburg	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	Cutbanks cave	0.10		
JdA:							
Jedburg	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.60	Flooding	0.60
		Low strength	1.00	Cutbanks cave	0.10		
LaA:							
Latonia	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Flooding	0.60
				Flooding	0.60		
LeA:							
Lenoir	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	Flooding	0.60	Flooding	0.60
		Low strength	1.00	Too clayey	0.28		
LmD:							
Lorman	85	Very limited		Somewhat limited		Somewhat limited	
		Shrink-swell	1.00	Too clayey	0.32	Slope	0.16
		Low strength	1.00	Slope	0.16		
		Slope	0.16	Cutbanks cave	0.10		
LoF:							
Lorman	45	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Slope	1.00	Slope	1.00
		Slope	1.00	Too clayey	0.32		
		Low strength	1.00	Cutbanks cave	0.10		
Toxey	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.50		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Okeelala	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	1.00		
LsA:							
Lucedale	90	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
LuC:							
Lucedale	35	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Bama	30	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Urban land	20	Not rated		Not rated		Not rated	

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
LvB:							
Luverne	90	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.12		
		Shrink-swell	0.50	Cutbanks cave	0.10		
LvD:							
Luverne	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.12	Slope	0.01
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Slope	0.01	Slope	0.01		
LvF:							
Luverne	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		
LxD:							
Luverne	55	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.12	Slope	0.04
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Slope	0.04	Slope	0.04		
Urban land	40	Not rated		Not rated		Not rated	
MaB:							
Malbis	90	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Depth to saturated zone	0.66		
				Cutbanks cave	0.10		
MbF:							
Maubila	35	Very limited		Very limited		Very limited	
		Low strength	1.00	Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00			Large stones content	0.68
		Shrink-swell	0.50	Slope	1.00		
				Too clayey	0.57	Depth to saturated zone	0.19
Wadley	30	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.20
Smithdale	20	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00		
MdA:							
McCrory	60	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.60	Flooding	0.60
				Cutbanks cave	0.10		
Deerford	30	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Sodium content	1.00
						Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.60		
		Low strength	1.00	Cutbanks cave	0.10	Flooding	0.60

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
MyA:							
Myatt	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	Flooding	0.60	Flooding	0.60
		Low strength	0.78	Cutbanks cave	0.10		
OcA:							
Ochlockonee	90	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Depth to saturated zone	0.95	Flooding	1.00
				Flooding	0.80		
				Cutbanks cave	0.10		
OdB:							
Ocilla	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
				Cutbanks cave	1.00	Droughty	0.39
Pelham	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
				Cutbanks cave	1.00	Droughty	0.29
OkF:							
Okeelala	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	1.00		
Brantley	35	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		
OmC:							
Olla	45	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Maubila	40	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Large stones content	0.68
		Shrink-swell	0.50	Too clayey	0.57	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	Cutbanks cave	0.10	Droughty	0.01
Pg:							
Pits	90	Not rated		Not rated		Not rated	
PrG:							
Prim	45	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Depth to soft bedrock	1.00	Slope	1.00	Slope	1.00
		Large stones content	0.92	Large stones content	0.92	Droughty	1.00

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
PrG:							
Eutrudepts----------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	1.00	Depth to soft bedrock	0.46	Depth to bedrock	0.46
		Low strength	1.00	Cutbanks cave	0.10		
PwC:							
Prim----------------	40	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Large stones content	0.92	Large stones content	0.92	Droughty	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10	Carbonate content	1.00
Suggsville----------	35	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Too clayey	1.00	Too clayey	1.00
		Low strength	1.00	Cutbanks cave	1.00		
Watsonia------------	15	Very limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Low strength	1.00	Cutbanks cave	1.00	Too clayey	1.00
		Shrink-swell	1.00			Droughty	0.99
PwF:							
Prim----------------	50	Very limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Droughty	1.00
		Large stones content	0.92	Large stones content	0.92	Carbonate content	1.00
Suggsville----------	20	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Too clayey	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	1.00	Too clayey	1.00
		Slope	1.00	Slope	1.00		
Watsonia------------	15	Very limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Low strength	1.00	Cutbanks cave	1.00	Slope	1.00
		Shrink-swell	1.00	Slope	1.00	Too clayey	1.00
RaD:							
Rayburn-------------	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	0.95	Slope	0.16
		Shrink-swell	1.00	Too clayey	0.59		
		Slope	0.16	Slope	0.16		
RvA:							
Riverview-----------	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.95	Flooding	0.60
		Low strength	1.00	Flooding	0.60		
				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
SaA:							
Savannah------------	90	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Low strength	0.22	Cutbanks cave	0.10		
SbB:							
Smithdale-----------	60	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Boykin--------------	25	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.09
SbD:							
Smithdale-----------	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.16	Slope	0.16	Slope	0.16
				Cutbanks cave	0.10		
Boykin--------------	30	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Slope	0.16
				Slope	0.16	Droughty	0.09
SsF:							
Smithdale-----------	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00		
Saffell-------------	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.28
ToD:							
Toxey---------------	50	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Slope	0.16
		Shrink-swell	1.00	Slope	0.16		
		Slope	0.16	Cutbanks cave	0.10		
Lorman--------------	35	Very limited		Somewhat limited		Somewhat limited	
		Shrink-swell	1.00	Too clayey	0.32	Slope	0.16
		Low strength	1.00	Slope	0.16		
		Slope	0.16	Cutbanks cave	0.10		
UdC:							
Udorthents----------	95	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Flooding	0.60	Flooding	0.60
				Depth to saturated zone	0.15	Droughty	0.01
UnA:							
Una-----------------	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
Ur:							
Urban land----------	95	Not rated		Not rated		Not rated	

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
UuB:							
Urbo	55	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Low strength	1.00	Too clayey	0.82	Too clayey	1.00
		Depth to saturated zone	0.99	Flooding	0.80	Depth to saturated zone	0.99
Mooreville	25	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Low strength	1.00	Flooding	0.80	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
Una	15	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Flooding	0.80	Too clayey	1.00
WaB:							
Wadley	90	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.20
WsF:							
Wadley	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.20
Smithdale	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		

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	45	Very limited		Very limited	
		Slow water movement	1.00	Depth to soft bedrock	1.00
		Depth to bedrock	1.00	Slope	0.92
Cantuche	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Large stones content	1.00	Slope	0.92
				Large stones content	0.56
ArF:					
Arundel	45	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		
Cantuche	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
		Large stones content	1.00	Large stones content	0.56
ArG:					
Arundel	45	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		
Cantuche	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
		Large stones content	1.00	Large stones content	0.56
BaB:					
Bama	90	Not limited		Very limited	
				Seepage	0.99
				Slope	0.32
BoB:					
Brantley	60	Very limited		Somewhat limited	
		Slow water movement	1.00	Seepage	0.50
				Slope	0.08
Okeelala	30	Not limited		Very limited	
				Seepage	1.00
				Slope	0.08

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
BoD:					
Brantley------------	50	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	0.16	Seepage	0.50
Okeelala------------	40	Somewhat limited		Very limited	
		Slope	0.16	Seepage	1.00
				Slope	1.00
BoG:					
Brantley------------	60	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	1.00	Seepage	0.50
Okeelala------------	25	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
CaA:					
Cahaba--------------	85	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
				Seepage	0.99
ChA:					
Chrysler------------	90	Very limited		Very limited	
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	0.40
		Flooding	0.40		
DaA:					
Daleville-----------	50	Very limited		Very limited	
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Seepage	0.50
Quitman-------------	35	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.50
EsA:					
Escambia------------	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.50
FaE:					
Flomaton------------	45	Very limited		Very limited	
		Seepage	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
		Filtering capacity	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
FaE:					
Smithdale-----------	30	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
Wadley--------------	15	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
FlA:					
Fluvaquents---------	95	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Slow water movement	1.00	Flooding	1.00
		Ponding	1.00	Depth to saturated zone	1.00
HaB:					
Halso---------------	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Slope	0.32
		Depth to bedrock	0.69	Depth to soft bedrock	0.26
HaD2:					
Halso---------------	85	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Depth to bedrock	0.69	Depth to soft bedrock	0.26
		Slope	0.16		
HtA:					
Harleston-----------	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	1.00
IBA:					
Iuka----------------	40	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
				Seepage	0.99
Bibb----------------	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
Mantachie-----------	20	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	0.99

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
IgA:					
Izagora-------------	85	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Slow water movement	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	1.00	Seepage	0.50
IjB:					
Izagora-------------	55	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Slow water movement	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	1.00	Seepage	0.50
Jedburg-------------	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	Seepage	0.50
JdA:					
Jedburg-------------	85	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Seepage	0.50
LaA:					
Latonia-------------	85	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Seepage	1.00	Seepage	1.00
LeA:					
Lenoir--------------	90	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		
LmD:					
Lorman--------------	85	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	0.16		
LoF:					
Lorman--------------	45	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	1.00		
Toxey---------------	25	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
LoF:					
Okeelala------------	15	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
LsA:					
Lucedale------------	90	Not limited		Very limited	
				Seepage	0.99
LuC:					
Lucedale------------	35	Not limited		Very limited	
				Seepage	0.99
				Slope	0.32
Bama----------------	30	Not limited		Very limited	
				Seepage	0.99
				Slope	0.32
Urban land----------	20	Not rated		Not rated	
LvB:					
Luverne-------------	90	Very limited		Somewhat limited	
		Slow water movement	1.00	Slope	0.32
LvD:					
Luverne-------------	85	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	0.01		
LvF:					
Luverne-------------	85	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	1.00		
LxD:					
Luverne-------------	55	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	0.04		
Urban land----------	40	Not rated		Not rated	
MaB:					
Malbis--------------	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	0.99
		Slow water movement	1.00	Slope	0.08
MbF:					
Maubila-------------	35	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
				Depth to saturated zone	0.75
		Depth to saturated zone	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: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
MbF:					
Wadley	30	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
Smithdale	20	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
MdA:					
McCrory	60	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	Seepage	0.50
Deerford	30	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		
MyA:					
Myatt	90	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
OcA:					
Ochlockonee	90	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	Seepage	1.00
OdB:					
Ocilla	50	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	1.00
Pelham	35	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	1.00
OkF:					
Okeelala	50	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
Brantley	35	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: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
OmC:					
Olla	45	Very limited		Very limited	
		Slow water movement	1.00	Seepage	1.00
				Slope	0.68
Maubila	40	Very limited		Somewhat limited	
		Slow water movement	1.00	Depth to saturated zone	0.75
		Depth to saturated zone	1.00	Slope	0.68
Pg:					
Pits	90	Not rated		Not rated	
PrG:					
Prim	45	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
		Large stones content	0.92	Large stones content	1.00
Eutrudepts	40	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		
PwC:					
Prim	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Large stones content	0.92	Large stones content	1.00
				Seepage	0.50
Suggsville	35	Very limited		Somewhat limited	
		Slow water movement	1.00	Depth to soft bedrock	0.96
		Depth to bedrock	0.99	Slope	0.92
Watsonia	15	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Slope	0.68
PwF:					
Prim	50	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
		Large stones content	0.92	Large stones content	1.00
Suggsville	20	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	1.00	Depth to soft bedrock	0.96
		Depth to bedrock	0.99		

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
PwF:					
Watsonia------------	15	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
RaD:					
Rayburn-------------	85	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Depth to saturated zone	1.00		
		Depth to bedrock	0.30		
RvA:					
Riverview-----------	85	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	0.99
SaA:					
Savannah------------	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Slow water movement	1.00	Seepage	0.50
SbB:					
Smithdale-----------	60	Not limited		Very limited	
				Seepage	1.00
				Slope	0.32
Boykin--------------	25	Not limited		Very limited	
				Seepage	1.00
				Slope	0.08
SbD:					
Smithdale-----------	55	Somewhat limited		Very limited	
		Slope	0.16	Seepage	1.00
				Slope	1.00
Boykin--------------	30	Somewhat limited		Very limited	
		Slope	0.16	Seepage	1.00
				Slope	1.00
SsF:					
Smithdale-----------	50	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
Saffell-------------	40	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Seepage	1.00	Seepage	1.00
ToD:					
Toxey---------------	50	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	0.16		

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
ToD:					
Lorman	35	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Slope	0.16		
UdC:					
Udorthents	95	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Seepage	1.00	Seepage	1.00
		Depth to saturated zone	0.40	Depth to saturated zone	0.40
UnA:					
Una	90	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Slow water movement	1.00	Flooding	1.00
		Ponding	1.00	Depth to saturated zone	1.00
Ur:					
Urban land	95	Not rated		Not rated	
UuB:					
Urbo	55	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		
Mooreville	25	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	Seepage	0.50
Una	15	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	Ponding	1.00
WaB:					
Wadley	90	Not limited		Very limited	
				Seepage	1.00
				Slope	0.08
WsF:					
Wadley	60	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00
Smithdale	30	Very limited		Very limited	
		Slope	1.00	Slope	1.00
				Seepage	1.00

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		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
ArC:							
Arundel-------------	45	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
Cantuche------------	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Large stones	1.00			Large stones	1.00
						Seepage	0.09
ArF:							
Arundel-------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Too clayey	1.00			Too clayey	1.00
Cantuche------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Large stones	1.00			Large stones	1.00
ArG:							
Arundel-------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Too clayey	1.00			Too clayey	1.00
Cantuche------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Large stones	1.00			Large stones	1.00
BaB:							
Bama----------------	90	Not limited		Not limited		Not limited	
BoB:							
Brantley------------	60	Very limited		Not limited		Very limited	
		Too clayey	1.00			Too clayey	1.00
Okeelala------------	30	Not limited		Not limited		Not limited	
BoD:							
Brantley------------	50	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Slope	0.16	Too clayey	1.00
		Slope	0.16			Slope	0.16
Okeelala------------	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.16	Slope	0.16	Slope	0.16
BoG:							
Brantley------------	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	1.00			Too clayey	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
BoG:							
Okeelala------------	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
CaA:							
Cahaba--------------	85	Very limited		Very limited		Not limited	
		Flooding	1.00	Flooding	1.00		
ChA:							
Chrysler------------	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	1.00
		Too clayey	1.00	Flooding	0.40	Hard to compact	1.00
		Flooding	0.40			Depth to saturated zone	0.99
DaA:							
Daleville-----------	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 clayey	0.50			Too clayey	0.50
Quitman-------------	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
		Too clayey	0.50			Too clayey	0.50
EsA:							
Escambia------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
FaE:							
Flomaton------------	45	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Seepage	1.00
		Slope	1.00	Slope	1.00	Gravel content	1.00
		Too sandy	0.50			Slope	1.00
Smithdale-----------	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Wadley--------------	15	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Seepage	1.00
		Too sandy	0.50	Slope	1.00	Slope	1.00
						Too sandy	0.50
FlA:							
Fluvaquents---------	95	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		
HaB:							
Halso---------------	85	Very limited		Somewhat limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	0.26	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
						Depth to bedrock	0.26

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
HaD2:							
Halso---------------	85	Very limited		Somewhat limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	0.26	Too clayey	1.00
		Too clayey	1.00	Slope	0.16	Hard to compact	1.00
		Slope	0.16			Depth to bedrock	0.26
HtA:							
Harleston-----------	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
IBA:							
Iuka----------------	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 sandy	0.50
		Too sandy	0.50				
Bibb----------------	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		
Mantachie-----------	20	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
IgA:							
Izagora-------------	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	0.99	Depth to saturated zone	0.75		
		Too clayey	0.50				
IjB:							
Izagora-------------	55	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	0.99	Depth to saturated zone	0.75		
		Too clayey	0.50				
Jedburg-------------	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	0.50
		Too clayey	1.00				
JdA:							
Jedburg-------------	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
		Too clayey	1.00				
LaA:							
Latonia-------------	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Seepage	1.00
		Seepage	1.00	Seepage	1.00	Too sandy	0.50
		Too sandy	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
LeA:							
Lenoir	90	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
LmD:							
Lorman	85	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Slope	0.16	Too clayey	1.00
		Slope	0.16			Hard to compact	1.00
						Slope	0.16
LoF:							
Lorman	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
Toxey	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	0.50			Hard to compact	1.00
						Too clayey	0.50
Okeelala	15	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
LsA:							
Lucedale	90	Not limited		Not limited		Not limited	
LuC:							
Lucedale	35	Not limited		Not limited		Not limited	
Bama	30	Not limited		Not limited		Not limited	
Urban land	20	Not rated		Somewhat limited		Not rated	
				Slope	0.04		
LvB:							
Luverne	90	Not limited		Not limited		Not limited	
LvD:							
Luverne	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.01	Slope	0.01	Slope	0.01
LvF:							
Luverne	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
LxD:							
Luverne	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.04	Slope	0.04	Slope	0.04
Urban land	40	Not rated		Not limited		Not rated	
MaB:							
Malbis	90	Somewhat limited		Not limited		Not limited	
		Depth to saturated zone	0.01				

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
MbF:							
Maubila	35	Very limited		Very limited		Very limited	
		Too clayey	1.00	Slope	1.00	Too clayey	1.00
		Slope	1.00	Depth to saturated zone	0.75	Slope	1.00
		Depth to saturated zone	0.99			Depth to saturated zone	0.86
Wadley	30	Very limited		Very limited		Very limited	
		Slope	1.00	Seepage	1.00	Seepage	1.00
		Too sandy	0.50	Slope	1.00	Slope	1.00
						Too sandy	0.50
Smithdale	20	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Seepage	1.00		
MdA:							
McCrory	60	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		
Deerford	30	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	Sodium content	1.00
		Excess sodium	1.00				
MyA:							
Myatt	90	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		
OcA:							
Ochlockonee	90	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Seepage	0.50
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.11
		Seepage	1.00	Seepage	1.00		
OdB:							
Ocilla	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
				Seepage	1.00		
Pelham	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
				Seepage	1.00		
OkF:							
Okeelala	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Brantley	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too clayey	1.00			Too clayey	1.00

Table 13b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Trench sanitary landfill: Value	Area sanitary landfill: Rating class and limiting features	Area sanitary landfill: Value	Daily cover for landfill: Rating class and limiting features	Daily cover for landfill: Value
OmC:							
Olla	45	Not limited		Not limited		Very limited	
						Hard to compact	1.00
Maubila	40	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Depth to saturated zone	0.75	Too clayey	1.00
		Depth to saturated zone	0.99			Depth to saturated zone	0.86
Pg:							
Pits	90	Not rated		Not limited		Not rated	
PrG:							
Prim	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Large stones content	0.92			Carbonate content	1.00
Eutrudepts	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
		Too clayey	1.00			Too clayey	1.00
PwC:							
Prim	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Large stones content	0.92			Carbonate content	1.00
						Large stones content	0.92
Suggsville	35	Very limited		Somewhat limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	0.96	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
						Depth to bedrock	0.96
Watsonia	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
PwF:							
Prim	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	Carbonate content	1.00
		Large stones content	0.92			Slope	1.00
Suggsville	20	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	0.96	Hard to compact	1.00
		Slope	1.00			Slope	1.00
Watsonia	15	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	1.00	Slope	1.00	Too clayey	1.00
		Slope	1.00			Hard to compact	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
RaD:							
Rayburn	85	Very limited		Somewhat limited		Very limited	
		Depth to bedrock	1.00	Slope	0.16	Too clayey	1.00
		Too clayey	1.00			Hard to compact	1.00
		Depth to saturated zone	0.47			Slope	0.16
RvA:							
Riverview	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.11
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
SaA:							
Savannah	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	0.99
		Too clayey	0.50			Too clayey	0.50
SbB:							
Smithdale	60	Not limited		Not limited		Not limited	
Boykin	25	Not limited		Very limited		Not limited	
				Seepage	1.00		
SbD:							
Smithdale	55	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.16	Slope	0.16	Slope	0.16
Boykin	30	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Seepage	1.00	Slope	0.16
				Slope	0.16		
SsF:							
Smithdale	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Seepage	1.00		
Saffell	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage	1.00			Gravel content	1.00
ToD:							
Toxey	50	Somewhat limited		Somewhat limited		Very limited	
		Too clayey	0.50	Slope	0.16	Hard to compact	1.00
		Slope	0.16			Too clayey	0.50
						Slope	0.16
Lorman	35	Very limited		Somewhat limited		Very limited	
		Too clayey	1.00	Slope	0.16	Too clayey	1.00
		Slope	0.16			Hard to compact	1.00
						Slope	0.16
UdC:							
Udorthents	95	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	Too sandy	1.00
		Seepage	1.00	Seepage	1.00	Depth to saturated zone	0.40

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
UnA:							
Una	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	Too clayey	1.00
Ur:							
Urban land	95	Not rated		Not limited		Not rated	
UuB:							
Urbo	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	1.00
		Too clayey	1.00			Hard to compact	1.00
Mooreville	25	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
		Seepage	1.00				
Una	15	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	1.00
		Too clayey	1.00	Ponding	1.00	Hard to compact	1.00
WaB:							
Wadley	90	Somewhat limited		Very limited		Very limited	
		Too sandy	0.50	Seepage	1.00	Seepage	1.00
						Too sandy	0.50
WsF:							
Wadley	60	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
Smithdale	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

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: Rating class	Value	Potential source of sand: Rating class	Value
ArC:					
Arundel	45	Poor		Poor	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.00	Thickest layer	0.00
Cantuche	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ArF:					
Arundel	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cantuche	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ArG:					
Arundel	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cantuche	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BaB:					
Bama	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BoB:					
Brantley	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Okeelala	30	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.04
		Thickest layer	0.00	Bottom layer	0.10
BoD:					
Brantley	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Okeelala	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.04
		Thickest layer	0.00	Bottom layer	0.10

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
BoG:					
Brantley------------	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Okeelala------------	25	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.04
		Bottom layer	0.00	Bottom layer	0.10
CaA:					
Cahaba--------------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.05
ChA:					
Chrysler------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
DaA:					
Daleville-----------	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Quitman-------------	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
EsA:					
Escambia------------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
FaE:					
Flomaton------------	45	Fair		Fair	
		Thickest layer	0.00	Bottom layer	0.00
		Bottom layer	0.25	Thickest layer	0.12
Smithdale-----------	30	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.09
Wadley--------------	15	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.10
FlA:					
Fluvaquents---------	95	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.03
HaB:					
Halso---------------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HaD2:					
Halso---------------	85	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: Rating class	Value	Potential source of sand: Rating class	Value
HtA:					
Harleston	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
IBA:					
Iuka	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.10
Bibb	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.03
Mantachie	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
IgA:					
Izagora	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
IjB:					
Izagora	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Jedburg	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
JdA:					
Jedburg	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LaA:					
Latonia	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.04
		Thickest layer	0.00	Bottom layer	0.22
LeA:					
Lenoir	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LmD:					
Lorman	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LoF:					
Lorman	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Toxey	25	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
LoF:					
Okeelala------------	15	Poor		Fair	
		Thickest layer	0.00	Thickest layer	0.04
		Bottom layer	0.00	Bottom layer	0.10
LsA:					
Lucedale------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LuC:					
Lucedale------------	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Bama----------------	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Urban land----------	20	Not rated		Not rated	
LvB:					
Luverne-------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LvD:					
Luverne-------------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LvF:					
Luverne-------------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LxD:					
Luverne-------------	55	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	
MaB:					
Malbis--------------	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MbF:					
Maubila-------------	35	Poor		Poor	
		Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.00	Bottom layer	0.00
Wadley--------------	30	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.10
Smithdale-----------	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.02
		Thickest layer	0.00	Bottom layer	0.10

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
MdA:					
McCrory	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Deerford	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MyA:					
Myatt	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OcA:					
Ochlockonee	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
OdB:					
Ocilla	50	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.05
Pelham	35	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
OkF:					
Okeelala	50	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.04
		Thickest layer	0.00	Bottom layer	0.10
Brantley	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OmC:					
Olla	45	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.02
		Thickest layer	0.00	Thickest layer	0.05
Maubila	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Pg:					
Pits	90	Not rated		Not rated	
PrG:					
Prim	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Eutrudepts	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PwC:					
Prim	40	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: Rating class	Value	Potential source of sand: Rating class	Value
PwC:					
Suggsville	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Watsonia	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PwF:					
Prim	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Suggsville	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Watsonia	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RaD:					
Rayburn	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RvA:					
Riverview	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
SaA:					
Savannah	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SbB:					
Smithdale	60	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.09
Boykin	25	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.03
SbD:					
Smithdale	55	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.09
Boykin	30	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.03
SsF:					
Smithdale	50	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.02
		Thickest layer	0.00	Bottom layer	0.10

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
SsF:					
Saffell	40	Fair		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.25	Bottom layer	0.10
ToD:					
Toxey	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lorman	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
UdC:					
Udorthents	95	Not rated		Not rated	
UnA:					
Una	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ur:					
Urban land	95	Not rated		Not rated	
UuB:					
Urbo	55	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Mooreville	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
Una	15	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
WaB:					
Wadley	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.10
WsF:					
Wadley	60	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.10
Smithdale	30	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.09

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		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ArC:							
Arundel-------------	45	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Too acid	0.50	Low strength	0.00	Too acid	0.12
		Organic matter content low	0.50	Shrink-swell	0.12	Rock fragments	0.99
Cantuche------------	40	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00			Depth to bedrock	0.00
		Cobble content	0.00			Too acid	0.59
ArF:							
Arundel-------------	45	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.50	Shrink-swell	0.12	Too acid	0.12
Cantuche------------	45	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Rock fragments	0.00
		Cobble content	0.00			Depth to bedrock	0.00
ArG:							
Arundel-------------	45	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Slope	0.00
		Too acid	0.50	Slope	0.00	Too clayey	0.00
		Organic matter content low	0.50	Low strength	0.00	Too acid	0.12
Cantuche------------	45	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Rock fragments	0.00
		Cobble content	0.00			Depth to bedrock	0.00
BaB:							
Bama----------------	90	Fair		Fair		Fair	
		Organic matter content low	0.12	Low strength	0.78	Too acid	0.88
		Too acid	0.50				
BoB:							
Brantley------------	60	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.32	Shrink-swell	0.99	Too acid	0.88
		Organic matter content low	0.50				
Okeelala------------	30	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.92
		Too acid	0.32				

Table 14b.--Construction Materials (Part 2)--Contnued

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
BoD:							
Brantley------------	50	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.32	Shrink-swell	0.99	Slope	0.84
		Organic matter content low	0.50			Too acid	0.88
Okeelala------------	40	Fair		Good		Fair	
		Organic matter content low	0.12			Slope	0.84
		Too acid	0.32			Too acid	0.92
BoG:							
Brantley------------	60	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Too acid	0.32	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.50	Shrink-swell	0.99	Too acid	0.88
Okeelala------------	25	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Too acid	0.32			Too acid	0.92
CaA:							
Cahaba--------------	85	Fair		Fair		Fair	
		Too acid	0.54	Low strength	0.22	Too acid	0.98
		Organic matter content low	0.88				
ChA:							
Chrysler------------	90	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Wetness depth	0.14	Wetness depth	0.14
				Shrink-swell	0.88	Too acid	0.88
		Too acid	0.50				
DaA:							
Daleville-----------	50	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
				Low strength	0.00	Too acid	0.50
		Too acid	0.50	Shrink-swell	0.91		
		Water erosion	0.99				
Quitman-------------	35	Fair		Poor		Poor	
		Organic matter content low	0.50	Wetness depth	0.00	Wetness depth	0.00
				Low strength	0.78	Too acid	0.50
		Too acid	0.50				
EsA:							
Escambia------------	85	Fair		Fair		Fair	
		Organic matter content low	0.50	Wetness depth	0.07	Wetness depth	0.07
						Too acid	0.59
		Too acid	0.50				
FaE:							
Flomaton------------	45	Poor		Good		Poor	
		Wind erosion	0.00			Hard to reclaim (rock fragments)	0.00
		Organic matter content low	0.08			Rock fragments	0.00
		Too sandy	0.11			Slope	0.00

Table 14b.--Construction Materials (Part 2)--Contnued

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
FaE:							
Smithdale-----------	30	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Organic matter content low	0.02			Too acid	0.88
		Too acid	0.32				
Wadley--------------	15	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Too sandy	0.01			Too sandy	0.01
		Organic matter content low	0.02			Too acid	0.98
FlA:							
Fluvaquents---------	95	Fair		Poor		Poor	
		Too acid	0.50	Wetness depth	0.00	Wetness depth	0.00
		Water erosion	0.99			Too acid	0.59
HaB:							
Halso---------------	85	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.12	Shrink-swell	0.30	Too acid	0.59
		Organic matter content low	0.50	Depth to bedrock	0.74		
HaD2:							
Halso---------------	85	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.12	Shrink-swell	0.30	Too acid	0.59
		Organic matter content low	0.12	Depth to bedrock	0.74	Slope	0.84
HtA:							
Harleston-----------	90	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.53	Wetness depth	0.53
		Organic matter content low	0.12			Too acid	0.92
		Too acid	0.50				
IBA:							
Iuka----------------	40	Fair		Fair		Fair	
		Organic matter content low	0.12	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Too acid	0.88
Bibb----------------	25	Fair		Poor		Poor	
		Too acid	0.50	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.88			Too acid	0.59
Mantachie-----------	20	Fair		Poor		Poor	
		Organic matter content low	0.12	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.50			Too acid	0.88
		Water erosion	0.99				
IgA:							
Izagora-------------	85	Fair		Poor		Fair	
		Organic matter content low	0.12	Low strength	0.00	Wetness depth	0.53
		Too acid	0.50	Wetness depth	0.53	Too acid	0.59

Table 14b.--Construction Materials (Part 2)--Contnued

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
IjB:							
Izagora	55	Fair		Poor		Fair	
		Organic matter content low	0.12	Low strength	0.00	Wetness depth	0.53
		Too acid	0.50	Wetness depth	0.53	Too acid	0.59
Jedburg	35	Fair		Poor		Poor	
		Organic matter content low	0.12	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.26	Low strength	0.00	Too acid	0.82
JdA:							
Jedburg	85	Fair		Poor		Poor	
		Organic matter content low	0.12	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.26	Low strength	0.00	Too acid	0.82
LaA:							
Latonia	85	Poor		Good		Fair	
		Wind erosion	0.00			Too acid	0.88
		Organic matter content low	0.12				
		Too acid	0.50				
LeA:							
Lenoir	90	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	0.50	Shrink-swell	0.87	Too acid	0.59
LmD:							
Lorman	85	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Carbonate content	0.08	Low strength	0.00	Slope	0.84
		Organic matter content low	0.12				
LoF:							
Lorman	45	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Slope	0.00
		Carbonate content	0.08	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Slope	0.00		
Toxey	25	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Slope	0.00
		Organic matter content low	0.02	Slope	0.50	Too clayey	0.00
				Shrink-swell	0.64		
		Too acid	0.50				
Okeelala	15	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
						Too acid	0.92
		Too acid	0.32				
LsA:							
Lucedale	90	Fair		Good		Fair	
		Too acid	0.50			Too acid	0.88
		Organic matter content low	0.50				

Table 14b.--Construction Materials (Part 2)--Contnued

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
LuC:							
Lucedale	35	Fair		Good		Fair	
		Too acid	0.50			Too acid	0.88
		Organic matter content low	0.50				
Bama	30	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.88
		Too acid	0.50				
Urban land	20	Not rated		Not rated		Not rated	
LvB:							
Luverne	90	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.12			Too acid	0.92
		Too acid	0.50				
LvD:							
Luverne	85	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.12			Too acid	0.92
		Too acid	0.50				
LvF:							
Luverne	85	Poor		Poor		Poor	
		Too clayey	0.00	Slope	0.00	Slope	0.00
		Organic matter content low	0.12			Too clayey	0.00
						Too acid	0.92
		Too acid	0.50				
LxD:							
Luverne	55	Poor		Good		Poor	
		Too clayey	0.00			Too clayey	0.00
		Organic matter content low	0.12			Too acid	0.92
						Slope	0.96
		Too acid	0.50				
Urban land	40	Not rated		Not rated		Not rated	
MaB:							
Malbis	90	Fair		Poor		Fair	
		Organic matter content low	0.12	Low strength	0.00	Too acid	0.88
		Too acid	0.50				
MbF:							
Maubila	35	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Slope	0.00
		Organic matter content low	0.12	Wetness depth	0.53	Too clayey	0.00
				Slope	0.68	Wetness depth	0.53
		Too acid	0.20				
Wadley	30	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.68	Slope	0.00
		Too sandy	0.01			Too sandy	0.01
		Organic matter content low	0.12			Too acid	0.98

Table 14b.--Construction Materials (Part 2)--Contnued

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
MbF:							
Smithdale	20	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.68	Slope	0.00
		Too acid	0.32			Too acid	0.88
MdA:							
McCrory	60	Poor		Poor		Poor	
		Too alkaline	0.00	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.12				
		Too acid	0.26				
Deerford	30	Poor		Poor		Poor	
		Too acid	0.00	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.50	Low strength	0.00		
MyA:							
Myatt	90	Fair		Poor		Poor	
		Too acid	0.12	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.50	Low strength	0.22	Too acid	0.59
OcA:							
Ochlockonee	90	Fair		Good		Fair	
		Too acid	0.32			Too acid	0.88
		Organic matter content low	0.50				
OdB:							
Ocilla	50	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too sandy	0.08			Too sandy	0.08
		Organic matter content low	0.50			Too acid	0.59
Pelham	35	Poor		Poor		Poor	
		Wind erosion	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too sandy	0.02			Too sandy	0.02
		Organic matter content low	0.50			Too acid	0.59
OkF:							
Okeelala	50	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Too acid	0.32			Too acid	0.92
Brantley	35	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Slope	0.00
		Too acid	0.32	Slope	0.00	Too clayey	0.00
		Organic matter content low	0.50	Shrink-swell	0.99	Too acid	0.88
OmC:							
Olla	45	Fair		Poor		Fair	
		Organic matter content low	0.12	Low strength	0.00	Too acid	0.68
		Too acid	0.50				

Table 14b.--Construction Materials (Part 2)--Contnued

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
OmC:							
Maubila	40	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Wetness depth	0.53	Wetness depth	0.53
		Too acid	0.20	Shrink-swell	0.87	Too acid	0.76
Pg:							
Pits	90	Not rated		Not rated		Not rated	
PrG:							
Prim	45	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Carbonate content	0.00	Slope	0.00	Rock fragments	0.00
		Depth to bedrock	0.00	Shrink-swell	0.87	Depth to bedrock	0.00
Eutrudepts	40	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Slope	0.00
		Carbonate content	0.32	Slope	0.00	Too clayey	0.00
		Droughty	0.35	Low strength	0.00	Depth to bedrock	0.54
PwC:							
Prim	40	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Carbonate content	0.00	Shrink-swell	0.87	Depth to bedrock	0.00
		Depth to bedrock	0.00			Carbonate content	0.00
Suggsville	35	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Organic matter content low	0.08	Low strength	0.00	Too acid	0.88
				Depth to bedrock	0.04		
		Too acid	0.50				
Watsonia	15	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Droughty	0.00	Low strength	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Shrink-swell	0.12		
PwF:							
Prim	50	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
		Carbonate content	0.00	Shrink-swell	0.87	Carbonate content	0.00
Suggsville	20	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Organic matter content low	0.08	Low strength	0.00	Slope	0.00
				Slope	0.00	Too acid	0.88
		Too acid	0.50				
Watsonia	15	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Droughty	0.00	Low strength	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Slope	0.00	Slope	0.00
RaD:							
Rayburn	85	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.00	Shrink-swell	0.12	Too acid	0.12
		Organic matter content low	0.12			Slope	0.84

Table 14b.--Construction Materials (Part 2)--Contnued

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
RvA:							
Riverview	85	Fair		Good		Fair	
		Too acid	0.39			Too acid	0.98
		Organic matter content low	0.88				
SaA:							
Savannah	90	Fair		Fair		Fair	
		Organic matter content low	0.12	Wetness depth	0.14	Wetness depth	0.14
		Too acid	0.50			Too acid	0.88
SbB:							
Smithdale	60	Fair		Good		Fair	
		Organic matter content low	0.02			Too acid	0.88
		Too acid	0.32				
Boykin	25	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.03
		Too sandy	0.03			Too acid	0.99
		Organic matter content low	0.12				
SbD:							
Smithdale	55	Poor		Good		Fair	
		Wind erosion	0.00			Slope	0.84
		Organic matter content low	0.02			Too acid	0.88
		Too acid	0.32				
Boykin	30	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.03
		Too sandy	0.03			Slope	0.84
		Organic matter content low	0.12			Too acid	0.99
SsF:							
Smithdale	50	Fair		Fair		Poor	
		Organic matter content low	0.12	Slope	0.50	Slope	0.00
		Too acid	0.32			Too acid	0.88
Saffell	40	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
		Too acid	0.32			Hard to reclaim (rock fragments)	0.00
						Rock fragments	0.00
ToD:							
Toxey	50	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.02	Shrink-swell	0.64	Slope	0.84
		Too acid	0.50				
Lorman	35	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Carbonate content	0.08	Low strength	0.00	Slope	0.84
		Organic matter content low	0.12				

Table 14b.--Construction Materials (Part 2)--Contnued

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
UdC:							
Udorthents----------	95	Not rated		Not rated		Not rated	
UnA:							
Una-----------------	90	Poor		Poor		Poor	
		Too clayey	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.32	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.50	Shrink-swell	0.12	Too acid	0.88
Ur:							
Urban land----------	95	Not rated		Not rated		Not rated	
UuB:							
Urbo----------------	55	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.39	Wetness depth	0.01	Wetness depth	0.01
		Organic matter content low	0.50	Shrink-swell	0.87	Too acid	0.92
Mooreville----------	25	Fair		Poor		Fair	
		Too acid	0.32	Low strength	0.00	Wetness depth	0.14
		Organic matter content low	0.50	Wetness depth	0.14	Too acid	0.88
				Shrink-swell	0.87		
		Water erosion	0.99				
Una-----------------	15	Poor		Poor		Poor	
		Too clayey	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.32	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.50	Shrink-swell	0.12	Too acid	0.88
WaB:							
Wadley--------------	90	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01			Too acid	0.98
		Organic matter content low	0.02				
WsF:							
Wadley--------------	60	Poor		Fair		Poor	
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Too sandy	0.01			Too sandy	0.01
		Organic matter content low	0.02			Too acid	0.98
Smithdale-----------	30	Fair		Fair		Poor	
		Organic matter content low	0.02	Slope	0.50	Slope	0.00
						Too acid	0.88
		Too acid	0.32				

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: 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
ArC:							
Arundel-------------	45	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.01	Hard to pack	0.79	Depth to water	1.00
				Thin layer	0.52		
Cantuche------------	40	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.84	Thin layer	1.00	Depth to water	1.00
				Large stones content	1.00		
				Seepage	0.12		
ArF:							
Arundel-------------	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.10	Hard to pack	0.79	Depth to water	1.00
		Depth to bedrock	0.01	Thin layer	0.52		
Cantuche------------	45	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.84	Thin layer	1.00	Depth to water	1.00
		Slope	0.28	Large stones content	1.00		
				Seepage	0.12		
ArG:							
Arundel-------------	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.97	Hard to pack	0.79	Depth to water	1.00
		Depth to bedrock	0.01	Thin layer	0.52		
Cantuche------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	0.84	Large stones content	1.00		
				Seepage	0.12		
BaB:							
Bama----------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.12	Depth to water	1.00
BoB:							
Brantley------------	60	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.68	Depth to water	1.00
Okeelala------------	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
BoD:							
Brantley------------	50	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.68	Depth to water	1.00
Okeelala------------	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
BoG:							
Brantley------------	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.97	Piping	0.68	Depth to water	1.00
		Seepage	0.70				

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
BoG:							
Okeelala------------	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
		Slope	0.88				
CaA:							
Cahaba--------------	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.05	Depth to water	1.00
ChA:							
Chrysler------------	90	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Slow refill	1.00
						Cutbanks cave	0.10
				Hard to pack	0.57		
DaA:							
Daleville-----------	50	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.01	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	0.17		
Quitman-------------	35	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	0.59		
EsA:							
Escambia------------	85	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.93		
FaE:							
Flomaton------------	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.25	Depth to water	1.00
		Slope	0.03				
Smithdale-----------	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	0.12	Seepage	0.09		
Wadley--------------	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
		Slope	0.12				
FlA:							
Fluvaquents---------	95	Not limited		Very limited		Somewhat limited	
				Ponding	1.00	Cutbanks cave	0.10
				Depth to saturated zone	1.00		
				Piping	1.00		
HaB:							
Halso---------------	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.01	Hard to pack	0.33	Depth to water	1.00
				Thin layer	0.06		
HaD2:							
Halso---------------	85	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.01	Hard to pack	0.33	Depth to water	1.00
				Thin layer	0.06		

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
HtA:							
Harleston-----------	90	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	0.10
				Seepage	0.06	Depth to saturated zone	0.01
IBA:							
Iuka----------------	40	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.10		
Bibb----------------	25	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	1.00		
				Seepage	0.03		
Mantachie-----------	20	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	0.74		
				Seepage	0.03		
IgA:							
Izagora-------------	85	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.99	Depth to water	1.00
IjB:							
Izagora-------------	55	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	0.99	Depth to water	1.00
Jedburg-------------	35	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	0.26		
JdA:							
Jedburg-------------	85	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	0.26		
LaA:							
Latonia-------------	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.22	Depth to water	1.00
LeA:							
Lenoir--------------	90	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Slow refill	1.00
				Hard to pack	0.03	Cutbanks cave	0.10
LmD:							
Lorman--------------	85	Not limited		Somewhat limited		Very limited	
				Hard to pack	0.60	Depth to water	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
LoF:							
Lorman	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.50	Hard to pack	0.60	Depth to water	1.00
Toxey	25	Somewhat limited		Not limited		Very limited	
		Slope	0.12			Depth to water	1.00
Okeelala	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
		Slope	0.72				
LsA:							
Lucedale	90	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
LuC:							
Lucedale	35	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Bama	30	Very limited		Not limited		Very limited	
		Seepage	1.00			Depth to water	1.00
Urban land	20	Not rated		Not rated		Not rated	
LvB:							
Luverne	90	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.03	Piping	0.09	Depth to water	1.00
LvD:							
Luverne	85	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.03	Piping	0.09	Depth to water	1.00
LvF:							
Luverne	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.28	Piping	0.09	Depth to water	1.00
		Seepage	0.03				
LxD:							
Luverne	55	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.03	Piping	0.09	Depth to water	1.00
Urban land	40	Not rated		Not rated		Not rated	
MaB:							
Malbis	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.40	Depth to water	1.00
				Depth to saturated zone	0.01		
MbF:							
Maubila	35	Somewhat limited		Very limited		Very limited	
		Slope	0.10	Depth to saturated zone	0.99	Depth to water	1.00
				Hard to pack	0.52		
Wadley	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
		Slope	0.10				

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
MbF:							
Smithdale	20	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	0.10	Seepage	0.10		
MdA:							
McCrory	60	Somewhat limited		Very limited		Very limited	
		Seepage	0.03	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	1.00		
Deerford	30	Somewhat limited		Very limited		Very limited	
		Seepage	0.03	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	1.00		
MyA:							
Myatt	90	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.57	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
				Piping	0.89		
OcA:							
Ochlockonee	90	Very limited		Somewhat limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	0.46	Depth to saturated zone	0.24
				Seepage	0.03	Cutbanks cave	0.10
OdB:							
Ocilla	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
				Seepage	0.05		
Pelham	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Depth to water	1.00
				Seepage	0.06		
OkF:							
Okeelala	50	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
		Slope	0.28				
Brantley	35	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.68	Depth to water	1.00
		Slope	0.28				
OmC:							
Olla	45	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.88	Depth to water	1.00
				Seepage	0.05		
Maubila	40	Not limited		Very limited		Very limited	
				Depth to saturated zone	0.99	Depth to water	1.00
				Hard to pack	0.52		
Pg:							
Pits	90	Not rated		Not rated		Not rated	

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
PrG:							
Prim	45	Somewhat limited		Very limited		Very limited	
		Slope	0.97	Thin layer	1.00	Depth to water	1.00
		Depth to bedrock	0.78	Large stones content	0.92		
Eutrudepts	40	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.97	Thin layer	0.86	Depth to water	1.00
		Depth to bedrock	0.11	Hard to pack	0.45		
PwC:							
Prim	40	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.78	Thin layer	1.00	Depth to water	1.00
				Large stones content	0.92		
Suggsville	35	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.01	Hard to pack	1.00	Depth to water	1.00
				Thin layer	0.37		
Watsonia	15	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.66	Thin layer	1.00	Depth to water	1.00
				Hard to pack	1.00		
PwF:							
Prim	50	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.78	Thin layer	1.00	Depth to water	1.00
		Slope	0.50	Large stones content	0.92		
Suggsville	20	Somewhat limited		Very limited		Very limited	
		Slope	0.50	Hard to pack	1.00	Depth to water	1.00
		Depth to bedrock	0.01	Thin layer	0.37		
Watsonia	15	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.66	Thin layer	1.00	Depth to water	1.00
		Slope	0.50	Hard to pack	1.00		
RaD:							
Rayburn	85	Not limited		Somewhat limited		Very limited	
				Hard to pack	0.63	Depth to water	1.00
				Depth to saturated zone	0.46		
RvA:							
Riverview	85	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Piping	1.00	Depth to saturated zone	0.24
				Depth to saturated zone	0.46	Cutbanks cave	0.10
				Seepage	0.06		
SaA:							
Savannah	90	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
				Piping	0.73		
SbB:							
Smithdale	60	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
				Seepage	0.09		

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
SbB:							
Boykin	25	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.03	Depth to water	1.00
SbD:							
Smithdale	55	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
				Seepage	0.09		
Boykin	30	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.03	Depth to water	1.00
SsF:							
Smithdale	50	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	0.12	Seepage	0.10		
Saffell	40	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.25	Depth to water	1.00
		Slope	0.28				
ToD:							
Toxey	50	Not limited		Not limited		Very limited	
						Depth to water	1.00
Lorman	35	Not limited		Somewhat limited		Very limited	
				Hard to pack	0.60	Depth to water	1.00
UdC:							
Udorthents	95	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Piping	0.88	Depth to water	1.00
UnA:							
Una	90	Not limited		Very limited		Very limited	
				Ponding	1.00	Depth to water	1.00
				Depth to saturated zone	1.00		
				Hard to pack	0.63		
Ur:							
Urban land	95	Not rated		Not rated		Not rated	
UuB:							
Urbo	55	Somewhat limited		Very limited		Very limited	
		Seepage	0.01	Depth to saturated zone	1.00	Depth to water	1.00
				Hard to pack	0.92		
Mooreville	25	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Piping	0.03		
				Seepage	0.02		
Una	15	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Depth to water	1.00
				Ponding	1.00		
				Hard to pack	0.63		

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
WaB:							
Wadley--------------	90	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
WsF:							
Wadley--------------	60	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.10	Depth to water	1.00
		Slope	0.12				
Smithdale-----------	30	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Depth to water	1.00
		Slope	0.12	Seepage	0.09		

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---------	0-5	Loam	ML	A-4	0	0-6	85-100	77-98	75-98	60-90	15-30	3-10
	5-32	Clay, silty clay	CH	A-7	0	0-15	80-100	80-100	80-100	65-90	50-70	29-50
	32-39	Gravelly silty clay loam, very gravelly silty clay, cobbly clay, very cobbly clay loam	GC-GM, GC	A-7	0-10	5-45	45-65	40-60	35-55	25-45	40-70	20-50
	39-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Cantuche--------	0-4	Very channery loam	GC, GC-GM	A-4	0-15	25-50	40-65	25-50	15-50	15-45	15-30	3-13
	4-10	Extremely channery loam, extremely channery silt loam, very channery sandy loam	GC, GC-GM	A-2, A-4, A-6	5-15	40-75	35-70	25-65	15-55	10-50	15-30	3-13
	10-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
ArF:												
Arundel---------	0-5	Loam	ML	A-4	0	0-6	85-100	77-98	75-98	60-90	15-30	3-10
	5-32	Clay, silty clay	CH	A-7	0	0-15	80-100	80-100	80-100	65-90	50-70	29-50
	32-39	Gravelly silty clay loam, very gravelly silty clay, cobbly clay, very cobbly clay loam	GC, GC-GM	A-7	0-10	5-45	75-92	55-80	40-75	35-70	40-70	20-50
	39-80	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*	
ArF:												
Cantuche--------	0-4	Very channery loam	GC, GC-GM	A-4	0-15	25-50	40-65	25-50	15-50	15-45	15-30	3-13
	4-10	Extremely channery loam, extremely channery silt loam, very channery sandy loam	GC, GC-GM	A-2, A-4, A-6	5-15	40-75	35-70	25-65	15-55	10-50	15-30	3-13
	10-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
ArG:												
Arundel---------	0-5	Loam	ML	A-4	0	0-6	85-100	77-98	75-98	60-90	15-30	3-10
	5-32	Clay, silty clay	CH	A-7	0	0-15	80-100	80-100	80-100	65-90	50-70	29-50
	32-39	Gravelly silty clay loam, cobbly clay, very gravelly silty clay, very cobbly clay loam	GC-GM, GC	A-7	0-10	5-45	75-92	55-80	40-75	35-70	40-70	20-50
	39-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Cantuche--------	0-4	Very channery loam	GC, GC-GM	A-4	0-15	25-50	40-65	25-50	15-50	15-45	15-30	3-13
	4-10	Extremely channery loam, extremely channery silt loam, very channery sandy loam	GC, GC-GM	A-2, A-4, A-6	5-15	40-75	35-70	25-65	15-55	10-50	15-30	3-13
	10-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

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*	
BaB:												
Bama------------	0-7	Fine sandy loam	ML, SM	A-4	0	0	95-100	85-100	70-95	40-70	19-30	3-10
	7-24	Sandy clay loam, loam, clay loam	CL, SC	A-4, A-6	0	0	90-100	85-100	80-95	36-70	26-44	10-25
	24-87	Sandy clay loam, loam, clay loam	CL, SC	A-4, A-6	0	0	85-100	80-100	80-95	40-70	29-44	13-25
BoB:												
Brantley--------	0-3	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	95-100	95-100	36-55	10-30	NP-7
	3-11	Fine sandy loam, loam	ML, CL-ML, SC-SM	A-4, A-6	0	0	95-100	95-100	95-100	36-55	20-33	4-14
	11-43	Clay, clay loam, sandy clay	MH, CL	A-7	0	0	95-100	95-100	90-100	60-75	41-50	16-22
	43-56	Loam, clay loam, sandy clay loam	CL	A-4, A-6	0	0	95-100	95-100	80-100	36-70	30-40	7-15
	56-80	Loam, silt loam, fine sandy loam, sandy clay loam	CL, ML, CL-ML	A-4, A-6	0	0	95-100	95-100	70-100	30-60	20-36	3-15
Okeelala--------	0-3	Fine sandy loam	SM	A-4	0	0	98-100	85-100	75-85	20-55	15-30	3-10
	3-18	Loamy fine sand, sandy loam, fine sandy loam	SM	A-4, A-2	0	0	98-100	85-100	75-85	20-35	16-28	1-10
	18-33	Sandy clay loam, clay loam, loam	CL, SC	A-6	0	0	98-100	85-100	80-96	45-75	28-45	12-25
	33-58	Loam, sandy clay loam, sandy loam	SC-SM, SC, SM	A-6, A-4	0	0	98-100	85-100	75-85	20-45	18-40	3-16
	58-80	Loamy sand, sandy loam, fine sandy loam	SM, SP-SM	A-2, A-3	0	0	98-100	85-100	50-85	10-35	0-25	NP-7

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*	
BoD:												
Brantley--------	0-3	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	95-100	95-100	36-55	10-30	NP-7
	3-11	Fine sandy loam, loam	ML, CL-ML, SC-SM	A-4, A-6	0	0	95-100	95-100	95-100	36-55	20-33	4-14
	11-43	Clay, clay loam, sandy clay	MH, CL	A-7	0	0	95-100	95-100	90-100	60-75	41-50	16-22
	43-56	Sandy clay loam, clay loam, loam	CL	A-4, A-6	0	0	95-100	95-100	80-100	36-70	30-40	7-15
	56-80	Loam, silt loam, fine sandy loam, sandy clay loam	CL, ML, CL-ML	A-4, A-6	0	0	95-100	95-100	70-100	30-60	20-36	3-15
Okeelala--------	0-3	Fine sandy loam	SM	A-4	0	0-5	98-100	85-100	75-85	20-35	19-31	3-10
	3-18	Loamy fine sand, sandy loam, fine sandy loam	SM	A-4, A-2	0	0-5	98-100	85-100	75-85	20-35	16-28	1-10
	18-33	Sandy clay loam, clay loam, loam	CL, SC	A-6	0	0	98-100	85-100	80-96	45-75	28-45	12-25
	33-58	Loam, sandy clay loam, sandy loam	SC-SM, SC, SM	A-6, A-4	0	0	98-100	85-100	75-85	20-45	18-40	3-16
	58-80	Loamy sand, sandy loam, fine sandy loam	SM, SP-SM	A-2, A-3	0	0	98-100	85-100	50-85	10-35	0-25	NP-7

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	
BoG:												
Brantley--------	0-3	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	95-100	95-100	36-55	10-30	NP-7
	3-11	Fine sandy loam, loam	ML, CL-ML, SC-SM	A-4, A-6	0	0	95-100	95-100	95-100	36-55	20-33	4-14
	11-43	Clay, clay loam, sandy clay	MH, CL	A-7	0	0	95-100	95-100	90-100	60-75	41-50	16-22
	43-56	Loam, clay loam, sandy clay loam	CL	A-4, A-6	0	0	95-100	95-100	80-100	36-70	30-40	7-15
	56-80	Loam, silt loam, fine sandy loam, sandy clay loam	CL, ML, CL-ML	A-4, A-6	0	0	95-100	95-100	70-100	30-60	20-36	3-15
Okeelala--------	0-3	Fine sandy loam	SM	A-4	0	0	98-100	85-100	75-85	20-35	19-31	3-10
	3-18	Loamy fine sand, sandy loam, loamy sand	SM	A-4, A-2	0	0	98-100	85-100	75-85	20-35	16-28	1-10
	18-33	Sandy clay loam, clay loam, loam	CL, SC	A-6	0	0	98-100	85-100	80-96	45-75	28-45	12-25
	33-58	Sandy loam, sandy clay loam, loam	SC-SM, SC, SM	A-6, A-4	0	0	98-100	85-100	75-85	20-45	18-40	3-16
	58-80	Loamy sand, sandy loam, fine sandy loam	SM, SP-SM	A-2, A-3	0	0	98-100	85-100	50-85	10-35	0-25	NP-7
CaA:												
Cahaba----------	0-8	Fine sandy loam	SM	A-4	0	0	95-100	95-100	65-90	30-45	19-32	3-11
	8-55	Sandy clay loam, loam, clay loam	CL, SC	A-4, A-6	0	0	90-100	90-100	75-95	40-75	28-46	12-25
	55-72	Sandy loam, fine sandy loam, loamy sand	SM, SP-SM, SC	A-4, A-2	0	0	95-100	90-100	60-85	10-35	0-25	NP-7

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*	
ChA:												
Chrysler--------	0-7	Loam	ML, CL-ML	A-4	0	0	95-100	95-100	70-100	40-75	21-30	6-13
	7-17	Clay, silty clay, clay loam	MH, CH, CL	A-7	0	0	95-100	95-100	85-99	55-95	35-65	18-43
	17-80	Clay, silty clay	MH, CH, CL	A-7	0	0	95-100	95-100	90-100	85-95	44-67	25-44
DaA:												
Daleville-------	0-2	Loam	CL-ML, ML	A-4	0	0	100	100	70-95	40-60	17-31	2-10
	2-14	Loam, fine sandy loam, very fine sandy loam	ML, CL-ML, CL	A-4	0	0	100	100	75-98	36-65	19-34	4-15
	14-36	Clay loam, loam	CL	A-4, A-6	0	0	100	100	80-98	60-90	26-43	10-24
	36-84	Clay loam, loam, sandy clay loam	CL	A-6	0	0	100	100	90-100	60-90	31-45	13-25
Quitman---------	0-5	Fine sandy loam	ML, SM	A-4	0	0	100	100	85-100	30-55	0-20	NP-3
	5-11	Fine sandy loam, very fine sandy loam	SM, ML	A-4	0	0	100	100	85-100	30-55	0-20	NP-3
	11-22	Sandy clay loam, loam	CL, SC	A-4, A-6	0	0	100	100	90-100	40-70	20-35	4-15
	22-80	Clay loam, loam, sandy clay loam	CL, SC	A-6	0	0	100	100	90-100	40-65	25-48	11-25
EsA:												
Escambia--------	0-7	Fine sandy loam	SC-SM, SM	A-4	0	0	95-100	95-100	70-90	40-65	17-30	2-7
	7-11	Fine sandy loam, loam, sandy loam	SM, SC-SM	A-4	0	0	95-100	95-100	70-95	40-75	20-31	4-12
	11-33	Fine sandy loam, loam, sandy loam	SM, CL, CL-ML, SC	A-4, A-6	0	0	87-95	87-95	70-95	40-75	19-30	4-12
	33-80	Loam, clay loam, sandy clay loam	CL, CL-ML, SC	A-4, A-6	0	0	87-95	87-95	60-95	35-80	19-45	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	
FaE:												
Flomaton--------	0-7	Very gravelly loamy sand	GM, GP-GM	A-1	0	0-5	25-50	25-50	20-50	5-25	0-20	NP-4
	7-14	Extremely gravelly coarse sand, very gravelly loamy coarse sand, very gravelly loamy sand	GC-GM, GM, GP-GM	A-1	0	0-10	30-70	15-50	15-50	5-25	0-20	NP-7
	14-84	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand, very gravelly loamy sand	GC-GM, GM, GP-GM	A-1	0	0-10	30-70	15-40	15-40	5-25	0-20	NP-7
	84-100	Extremely gravelly sand, gravelly sand, very gravelly sand	GC-GM, GM, GP-GM	A-1	0	0-10	35-65	25-50	20-50	5-25	0-20	NP-5
Smithdale-------	0-3	Loamy sand	SM	A-2	0	0	97-100	85-100	60-95	28-49	0-20	NP-5
	3-8	Loamy sand, sandy loam, fine sandy loam	SM, SP-SM	A-4, A-2	0	0	98-100	95-100	75-100	10-40	0-14	NP
	8-13	Sandy loam, fine sandy loam	SC-SM, SM	A-4	0	0	98-100	85-100	60-95	28-49	5-20	NP-5
	13-42	Sandy clay loam, clay loam, loam	CL, SC	A-4, A-6	0	0	98-100	85-100	80-95	45-75	23-38	7-16
	42-80	Sandy loam, fine sandy loam, sandy clay loam	SM, CL, SC	A-4	0	0	98-100	85-100	65-95	36-75	10-30	NP-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	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
FaE:												
Wadley----------	0-10	Loamy sand	SM	A-2	0	0	98-100	95-100	60-90	10-40	0-21	NP-3
	10-55	Loamy sand, loamy fine sand, sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-90	10-40	0-21	NP-6
	55-80	Sandy loam, sandy clay loam	SC, SC-SM	A-4, A-6	0	0	100	95-100	65-90	25-50	23-44	8-25
FlA:												
Fluvaquents-----	0-6	Sandy loam	SM	A-4	0	0	100	90-100	60-90	30-60	0-35	NP-11
	6-80	Sandy loam, stratified sandy loam to clay	CL, SC, SC-SM	A-7, A-4, A-6	0	0	100	60-100	60-100	30-95	10-40	NP-12
HaB:												
Halso-----------	0-2	Fine sandy loam	ML, CL-ML	A-4	0	0	95-100	95-100	70-100	40-70	18-35	3-13
	2-4	Silty clay loam, clay loam	CL, CH	A-6, A-7	0	0	95-100	95-100	80-100	70-90	35-47	10-25
	4-40	Clay, silty clay	CH	A-7	0	0	95-100	95-100	90-100	80-98	45-70	15-35
	40-52	Silty clay, silty clay loam, clay, clay loam	CH, CL	A-6, A-7	0	0-5	90-100	90-100	60-95	55-80	30-55	12-30
	52-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
HaD2:												
Halso-----------	0-2	Fine sandy loam	CL-ML, ML	A-4	0	0	95-100	95-100	70-100	40-70	18-35	3-13
	2-4	Clay loam, silty clay loam	CH, CL	A-6, A-7	0	0	95-100	95-100	80-100	70-90	35-47	10-25
	4-40	Clay, silty clay	CH	A-7	0	0	95-100	95-100	90-100	80-98	45-70	15-35
	40-52	Silty clay, silty clay loam, clay, clay loam	CH, CL	A-6, A-7	0	0-5	90-100	90-100	60-95	55-80	30-55	12-30
	52-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

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	
HtA:												
Harleston-------	0-6	Loamy fine sand	SM	A-2	0	0	90-100	85-100	50-75	15-30	0-25	NP-2
	6-13	Loamy fine sand, fine sandy loam	SM	A-2, A-4	0	0	90-100	85-100	50-85	15-55	0-24	NP-4
	13-27	Fine sandy loam, sandy loam, loam	CL, CL-ML, SC-SM, SC	A-4, A-6	0	0	90-100	85-100	60-95	30-70	19-30	4-12
	27-65	Fine sandy loam, loam, sandy clay loam	SC, CL, CL-ML, SC-SM	A-4, A-6	0	0	90-100	85-100	60-95	30-70	19-38	4-19
IBA:												
Iuka------------	0-3	Sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	55-70	25-50	15-25	NP-7
	3-31	Sandy loam, loam, silt loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	55-70	30-70	15-30	NP-7
	31-80	Loamy sand, sandy loam, fine sandy loam	ML, SM	A-2, A-4	0	0	90-100	90-100	70-100	15-50	15-30	NP-7
Bibb------------	0-7	Sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	90-100	60-90	30-60	0-35	NP-12
	7-72	Sandy loam, loam, loamy sand	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	90-100	90-100	40-100	30-90	0-31	NP-12
Mantachie-------	0-9	Silt loam	ML, CL	A-4	0	0	100	100	90-100	70-85	22-47	6-18
	9-20	Loam, clay loam, sandy clay loam	CL, SC	A-6	0	0	95-100	90-100	80-95	45-80	28-45	12-24
	20-39	Clay loam, sandy clay loam, loam	CL, SC	A-6	0	0	95-100	90-100	80-95	45-80	27-43	12-24
	39-80	Sandy loam, loam, sandy clay loam, loamy sand	SM, ML, SC, CL-ML	A-4, A-6	0	0	95-100	90-100	40-90	30-90	15-35	6-17

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*	
IgA:												
Izagora---------	0-4	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	95-100	70-95	40-65	0-25	NP-5
	4-7	Fine sandy loam, loam, silt loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	95-100	70-100	40-90	5-30	NP-10
	7-35	Sandy clay loam, loam, clay loam	CL	A-6, A-4	0	0	95-100	95-100	85-100	60-95	25-45	8-25
	35-80	Clay loam, clay, sandy clay loam	CH, CL	A-6, A-7	0	0	95-100	95-100	90-100	70-95	30-60	20-40
IjB:												
Izagora---------	0-4	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	95-100	70-95	40-65	0-25	NP-5
	4-7	Silt loam, loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	95-100	70-100	40-90	5-30	NP-10
	7-35	Sandy clay loam, loam, clay loam	CL	A-6, A-4	0	0	95-100	95-100	85-100	60-95	25-45	8-25
	35-80	Clay loam, clay, sandy clay loam	CH, CL	A-6, A-7	0	0	95-100	95-100	90-100	70-95	30-60	20-40
Jedburg---------	0-4	Loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	95-100	70-85	40-55	0-30	NP-10
	4-10	Fine sandy loam, sandy loam	ML, SM, CL-ML, SC-SM	A-4	0	0	100	95-100	45-90	40-85	23-33	7-14
	10-24	Loam, sandy clay loam, clay loam	CL	A-4, A-6	0	0	100	95-100	85-100	70-95	25-40	9-20
	24-42	Clay loam, sandy clay loam, loam	SC, CL	A-6	0	0	100	95-100	80-100	70-95	25-40	13-24
	42-80	Clay, sandy clay, clay loam	CH, CL, SC	A-6, A-7	0	0	100	95-100	80-100	40-80	30-60	10-25

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*	
JdA:												
Jedburg---------	0-4	Loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	95-100	70-85	40-55	0-30	NP-10
	4-10	Fine sandy loam, sandy loam	ML, SM, CL-ML, SC-SM	A-4	0	0	100	95-100	45-90	40-85	23-33	7-14
	10-24	Loam, sandy clay loam, clay loam	CL	A-4, A-6	0	0	100	95-100	85-100	70-95	25-40	9-20
	24-42	Sandy clay loam, loam, clay loam	CL, SC	A-6	0	0	100	95-100	80-100	70-95	25-40	13-24
	42-80	Clay, sandy clay, clay loam	CH, CL, SC	A-7, A-6	0	0	100	95-100	80-100	40-80	30-60	10-25
LaA:												
Latonia---------	0-8	Loamy sand	SM	A-2	0	0	90-100	85-100	50-80	15-35	0-20	NP
	8-38	Sandy loam, loam, fine sandy loam	SM	A-2, A-4	0	0	90-100	85-100	60-85	30-50	0-20	NP-10
	38-80	Sand, loamy sand	SM, SP-SM	A-1, A-2	0	0	90-100	85-100	50-75	10-30	0-20	NP
LeA:												
Lenoir----------	0-2	Silt loam	CL, CL-ML, ML	A-4	0	0	95-100	95-100	70-98	40-85	20-35	3-10
	2-6	Silt loam, fine sandy loam, loam	SC-SM, CL-ML, CL	A-4	0	0	95-100	95-100	70-98	45-90	19-36	4-17
	6-12	Clay loam, silty clay, clay	MH, CH, CL	A-6, A-7	0	0	95-100	95-100	85-99	55-95	40-65	11-35
	12-80	Clay, silty clay, clay loam	MH, CH, CL	A-6, A-7	0	0	95-100	95-100	85-99	55-95	40-65	11-35

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	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plas-ticity index
	In				*Pct*	*Pct*					*Pct*	
LmD:												
Lorman----------	0-5	Fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	65-90	40-55	21-27	6-10
	5-9	Fine sandy loam, loam	ML, CL-ML	A-4	0	0	100	95-100	85-95	60-95	21-30	6-11
	9-18	Clay, silty clay	CH	A-7	0	0	95-100	95-100	95-100	90-95	51-75	29-42
	18-60	Clay, silty clay	CH	A-7	0	0	95-100	95-100	95-100	90-95	51-75	29-42
	60-80	Clay, clay loam, silty clay loam, silty clay	CL, CH	A-6, A-7	0	0	95-100	95-100	80-100	80-95	31-65	13-40
LoF:												
Lorman----------	0-5	Fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	65-90	40-55	21-27	6-10
	5-9	Fine sandy loam, loam	ML, CL-ML	A-4	0	0	100	95-100	85-95	60-95	21-30	6-11
	9-18	Clay, silty clay	CH	A-7	0	0	95-100	95-100	95-100	90-95	51-75	29-42
	18-60	Clay, silty clay	CH	A-7	0	0	95-100	95-100	95-100	90-95	51-75	29-42
	60-80	Clay, clay loam, silty clay loam, silty clay	CH, CL	A-6, A-7	0	0	95-100	95-100	80-100	80-95	31-65	13-40
Toxey-----------	0-3	Silty clay loam	CH, CL	A-7	0	0	100	100	95-100	90-100	42-64	30-40
	3-7	Clay, silty clay	CH	A-7	0	0	100	100	95-100	95-100	50-68	29-40
	7-27	Clay, silty clay	CH	A-7	0	0	100	95-100	95-100	90-100	50-74	29-48
	27-31	Silty clay, clay loam, clay, silty clay loam	CH, CL	A-7, A-6	0	0	100	90-100	70-100	55-95	37-59	19-36
	31-80	Clay loam, silty clay loam, clay, silty clay	CH, CL	A-6, A-7	0	0	100	90-100	70-100	55-95	35-55	18-35

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*	
LoF:												
Okeelala--------	0-3	Fine sandy loam	SM	A-4	0	0-5	98-100	85-100	75-85	20-35	19-31	3-10
	3-18	Loamy fine sand, fine sandy loam, sandy loam	SM	A-4, A-2	0	0-5	98-100	85-100	75-85	20-35	16-28	1-10
	18-33	Sandy clay loam, clay loam, loam	CL, SC	A-6	0	0	98-100	85-100	80-96	45-75	28-45	12-25
	33-58	Loam, sandy clay loam, sandy loam	SC-SM, SC, SM	A-6, A-4	0	0	98-100	85-100	75-85	20-45	18-40	3-16
	58-80	Loamy sand, sandy loam, fine sandy loam	SM, SP-SM	A-2, A-3	0	0	98-100	85-100	50-85	10-35	0-25	NP-7
LsA:												
Lucedale--------	0-7	Sandy loam	ML, SM	A-4	0	0	100	95-100	80-95	25-65	0-30	NP-6
	7-80	Sandy clay loam, clay loam, loam	CL, SC	A-4, A-6	0	0	95-100	95-100	80-100	30-75	25-40	13-21
LuC:												
Lucedale--------	0-7	Sandy loam	ML, SM	A-4	0	0	100	95-100	80-95	25-65	0-30	NP-6
	7-80	Sandy clay loam, clay loam, loam	CL, SC	A-4, A-6	0	0	95-100	95-100	80-100	30-75	25-40	13-21
Bama------------	0-7	Fine sandy loam	ML, SM	A-4	0	0	95-100	85-100	70-95	40-70	19-30	3-10
	7-24	Sandy clay loam, loam, clay loam	CL, SC	A-4, A-6	0	0	90-100	85-100	80-95	40-70	26-44	10-25
	24-87	Sandy clay loam, loam, clay loam	CL, SC	A-4, A-6	0	0	85-100	80-100	80-95	40-70	29-44	13-25
Urban land------	0-6	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*	
LvB:												
Luverne---------	0-6	Sandy loam	SC-SM, SM	A-4	0	0-5	89-100	84-100	80-100	30-60	5-19	NP-13
	6-23	Clay, sandy clay, clay loam	CL, MH	A-7, A-6	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	23-34	Clay loam, sandy clay loam, clay, sandy clay	MH, CL	A-6, A-7	0	0-5	95-100	82-100	70-100	35-80	29-56	13-28
	34-80	Loam, fine sandy loam, stratified loamy sand to clay	ML, SM	A-2, A-4, A-6	0	0-5	90-100	85-100	70-100	25-65	20-43	6-25
LvD:												
Luverne---------	0-6	Sandy loam	SC-SM, SM	A-4	0	0-5	89-100	84-100	80-100	30-60	5-19	NP-13
	6-23	Clay, sandy clay, clay loam	CL, MH	A-7, A-6	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	23-34	Clay loam, sandy clay loam, clay, sandy clay	CL, MH	A-6, A-7	0	0-5	95-100	82-100	70-100	35-80	29-56	13-28
	34-80	Loam, fine sandy loam, stratified loamy sand to clay	ML, SM	A-2, A-4, A-6	0	0-5	90-100	85-100	70-100	25-65	20-43	6-25
LvF:												
Luverne---------	0-6	Sandy loam	SC-SM, SM	A-4	0	0-5	89-100	84-100	80-100	30-60	5-19	NP-13
	6-23	Clay, sandy clay, clay loam	CL, MH	A-7, A-6	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	23-34	Clay loam, sandy clay loam, clay, sandy clay	MH, CL	A-6, A-7	0	0-5	95-100	82-100	70-100	35-80	29-56	13-28
	34-80	Loam, fine sandy loam, stratified loamy sand to clay	ML, SM	A-2, A-4, A-6	0	0-5	90-100	85-100	70-100	25-65	20-43	6-25

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	
LxD:												
Luverne---------	0-6	Sandy loam	SC-SM, SM	A-4	0	0-5	89-100	84-100	80-100	30-60	5-19	NP-13
	6-23	Clay, sandy clay, clay loam	CL, MH	A-7, A-6	0	0-5	95-100	90-100	85-100	50-95	38-60	25-36
	23-34	Clay loam, sandy clay loam, clay, sandy clay	CL, MH	A-6, A-7	0	0-5	95-100	82-100	70-100	35-80	29-56	13-28
	34-80	Loam, fine sandy loam, stratified loamy sand to clay	ML, SM	A-2, A-4, A-6	0	0-5	90-100	85-100	70-100	25-65	20-43	6-25
Urban land------	0-6	Variable	---	---	---	---	---	---	---	---	---	---
MaB:												
Malbis----------	0-4	Fine sandy loam	CL-ML, ML	A-4	0	0	100	97-100	91-97	40-55	20-30	5-10
	4-9	Sandy loam, fine sandy loam	SM, SC-SM	A-4	0	0	100	97-100	91-97	30-50	21-30	6-12
	9-38	Loam, sandy clay loam, clay loam	CL, ML	A-6	0	0	99-100	95-100	80-100	55-70	27-43	12-23
	38-80	Loam, sandy clay loam, clay loam	CL	A-6	0	0	98-100	96-100	90-100	56-80	29-44	13-25
MbF:												
Maubila---------	0-5	Flaggy sandy loam	SC-SM, SM	A-4, A-2	0-10	10-35	85-100	85-100	60-95	10-35	15-25	NP-6
	5-8	Flaggy sandy loam, flaggy loamy sand, loamy sand	SM, SC-SM, SP-SM	A-2	0-10	10-35	85-100	85-100	55-95	10-35	12-25	NP-5
	8-15	Clay loam, clay, sandy clay loam	MH, CL	A-6, A-7	0	0-10	95-100	90-100	85-100	45-90	35-60	15-40
	15-55	Clay, clay loam, silty clay	MH, CL	A-6, A-7	0	0-5	95-100	90-100	85-100	60-98	44-60	25-45
	55-80	Clay, clay loam, silty clay	CL, MH	A-7, A-6	0	0-5	95-100	90-100	85-100	60-98	43-67	25-44

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	
MbF:												
Wadley----------	0-10	Loamy sand	SM	A-2	0	0	98-100	95-100	60-90	10-40	0-21	NP-3
	10-55	Loamy sand, loamy fine sand, sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-90	10-40	0-21	NP-6
	55-80	Sandy loam, sandy clay loam	SC, SC-SM	A-4, A-6	0	0	100	95-100	65-90	25-50	23-44	8-25
Smithdale-------	0-2	Sandy loam	SC-SM, SM	A-4	0	0	100	85-100	60-95	28-49	17-31	2-10
	2-7	Sandy loam, loamy sand, fine sandy loam	SM, SC-SM	A-2, A-4	0	0	98-100	95-100	75-100	10-40	15-27	1-10
	7-35	Sandy clay loam, clay loam, loam	SC, CL	A-6, A-4	0	0	98-100	85-100	80-95	45-75	23-38	7-16
	35-63	Sandy loam, sandy clay loam, loam	CL, SC	A-4, A-6	0	0	98-100	85-100	80-95	45-75	23-38	7-16
	63-80	Loamy sand, sandy loam, loam	SC-SM, SC, SM	A-4, A-2	0	0	100	85-100	65-95	25-70	10-30	NP-19
MdA:												
McCrory---------	0-4	Silt loam	ML, CL-ML	A-4	0	0	100	100	90-100	70-90	0-25	NP-7
	4-14	Silt loam, loam, fine sandy loam	CL-ML, ML	A-4	0	0	100	100	90-100	70-90	18-34	2-13
	14-23	Loam, sandy clay loam	CL, CL-ML, SC	A-6, A-4	0	0	100	100	80-95	35-75	21-41	6-21
	23-58	Loam, fine sandy loam, sandy clay loam	CL, CL-ML, SC	A-4, A-6	0	0	100	100	70-90	40-55	20-40	5-15
	58-72	Fine sandy loam, very fine sandy loam	SC-SM, SM	A-4	0	0	100	100	60-85	25-50	0-25	NP-7

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*	
MdA:												
Deerford--------	0-3	Loam	CL-ML, ML	A-4	0	0	100	100	100	95-100	0-28	NP-7
	3-10	Very fine sandy loam, fine sandy loam	CL-ML, ML	A-4	0	0	100	100	100	95-100	0-27	NP-10
	10-35	Sandy clay loam, clay loam, loam	CL	A-6, A-4	0	0	100	100	100	95-100	24-43	9-25
	35-49	Loam, clay loam, sandy clay loam	CL	A-6, A-4	0	0	100	100	100	95-100	32-49	11-25
	49-80	Very fine sandy loam, loam, sandy clay loam	CL, CL-ML	A-4, A-6	0	0	100	100	80-100	50-95	25-49	5-25
MyA:												
Myatt-----------	0-3	Fine sandy loam	ML, SC-SM, SM	A-4	0	0	95-100	95-100	60-90	30-70	5-25	NP-5
	3-14	Loam, fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	95-100	75-95	35-80	0-25	NP-10
	14-55	Sandy clay loam, loam, clay loam	ML, SC, CL	A-6, A-4	0	0	95-100	95-100	80-100	60-90	20-30	10-25
	55-80	Sandy loam, loam, sandy clay loam, clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	85-100	55-90	60-90	30-70	15-40	5-20
OcA:												
Ochlockonee-----	0-5	Sandy loam	SC-SM, SM	A-4	0	0	100	95-100	65-85	36-45	10-25	NP-5
	5-34	Loam, sandy loam, silt loam	ML, CL-ML, SC-SM, SM	A-4	0	0	100	95-100	60-100	36-75	10-30	NP-9
	34-40	Loam, fine sandy loam, silt loam, sandy loam	SC-SM, ML, CL-ML, SM	A-4	0	0	100	95-100	50-99	13-80	10-30	NP-9
	40-80	Sandy loam, loam, silt loam, loamy sand	SC-SM, ML, CL-ML, SM	A-2, A-4	0	0	100	95-100	50-99	13-80	0-30	NP-9

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*	
OdB:												
Ocilla----------	0-3	Loamy fine sand	SM, SP-SM	A-2	0	0	100	95-100	75-100	15-30	0-14	NP
	3-31	Loamy fine sand, loamy sand	SP-SM, SM	A-2	0	0	100	95-100	65-100	5-30	15-30	2-12
	31-80	Sandy loam, sandy clay loam, fine sandy loam	SM, CL, SC	A-4, A-6	0	0	100	95-100	80-100	36-60	20-40	7-15
Pelham----------	0-7	Loamy fine sand	SP-SM, SM	A-2	0	0	100	95-100	75-100	15-30	0-14	NP
	7-32	Loamy fine sand, loamy sand	SP-SM, SM	A-2	0	0	100	95-100	65-100	5-30	15-30	2-12
	32-80	Sandy loam, fine sandy loam, sandy clay loam	CL, SC, SM	A-4, A-6	0	0	100	95-100	65-100	27-50	20-45	3-20
OkF:												
Okeelala--------	0-3	Fine sandy loam	SM	A-4	0	0	98-100	85-100	75-85	20-35	19-31	3-10
	3-18	Loamy fine sand, sandy loam, fine sandy loam	SM	A-4, A-2	0	0	98-100	85-100	75-85	20-35	16-28	1-10
	18-33	Sandy clay loam, clay loam, loam	CL, SC	A-6	0	0	98-100	85-100	80-96	45-75	28-45	12-25
	33-58	Sandy loam, sandy clay loam, loam	SC-SM, SC, SM	A-6, A-4	0	0	98-100	85-100	75-85	20-45	18-40	3-16
	58-80	Loamy sand, sandy loam, fine sandy loam	SM, SP-SM	A-2, A-3	0	0	98-100	85-100	50-85	10-35	0-25	NP-7

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	
OkF:												
Brantley	0-3	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	95-100	95-100	36-55	10-30	NP-7
	3-11	Fine sandy loam, loam	ML, CL-ML, SC-SM	A-4, A-6	0	0	95-100	95-100	95-100	36-55	20-33	4-14
	11-43	Clay, clay loam, sandy clay	MH, CL	A-7	0	0	95-100	95-100	90-100	60-75	41-50	16-22
	43-56	Loam, clay loam, sandy clay loam	CL	A-4, A-6	0	0	95-100	95-100	80-100	36-70	30-40	7-15
	56-80	Loam, silt loam, fine sandy loam, sandy clay loam	CL, ML, CL-ML	A-2, A-4, A-6	0	0	95-100	95-100	70-100	30-60	20-36	3-15
OmC:												
Olla	0-4	Loamy fine sand	SC-SM, SM	A-2	0	0	95-100	90-100	75-90	15-40	17-30	1-6
	4-13	Loamy fine sand, fine sandy loam	SC-SM, SM	A-2, A-4	0	0	95-100	90-100	60-95	20-50	16-29	1-10
	13-22	Sandy clay loam, clay loam	SC, CL	A-6, A-4	0	0	95-100	90-100	60-90	25-50	20-40	11-23
	22-37	Fine sandy loam, sandy clay loam, clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	85-100	80-100	60-95	30-58	22-40	7-20
	37-80	Sandy clay loam, clay loam, fine sandy loam	CL, SC	A-4, A-6	0	0	95-100	90-100	85-100	60-98	26-44	10-32

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*	
OmC:												
Maubila---------	0-5	Flaggy sandy loam	SC-SM, SM	A-2, A-4	0-10	10-35	85-100	85-100	60-95	10-35	15-25	NP-6
	5-8	Flaggy sandy loam, loamy sand, flaggy loamy sand	SM, SC-SM, SP-SM	A-2	0-10	10-35	85-100	85-100	55-95	10-35	12-25	NP-5
	8-15	Clay loam, clay, sandy clay loam	MH, CL	A-6, A-7	0	0-10	95-100	90-100	85-100	45-90	35-60	15-40
	15-55	Clay, clay loam, silty clay	MH, CL	A-6, A-7	0	0-5	95-100	90-100	85-100	60-98	44-60	25-45
	55-80	Clay, clay loam, silty clay	CL, MH	A-7, A-6	0	0-5	95-100	90-100	85-100	60-98	43-67	25-44
Pg:												
Pits------------	0-60	Variable	---	---	---	---	---	---	---	---	---	---
PrG:												
Prim------------	0-7	Very cobbly clay loam	GC, GC-GM	A-6, A-7	0-24	15-30	75-90	40-70	40-75	40-70	30-50	8-20
	7-15	Extremely cobbly sandy loam, very cobbly loam, extremely cobbly clay loam	GC, GC-GM	A-4, A-6	0-20	24-60	70-85	20-50	10-45	5-35	28-45	8-20
	15-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Eutrudepts------	0-4	Clay loam	CH, CL	A-7	0	0-15	85-100	80-100	50-100	45-90	39-57	19-28
	4-30	Clay, silty clay, clay loam, silty clay loam	CH, CL	A-7, A-6	0	0-5	95-100	92-100	50-100	45-90	38-72	19-44
	30-80	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*	
PwC:												
Prim------------	0-7	Very cobbly clay loam	GC, GC-GM	A-6, A-7	0-24	15-30	75-90	40-70	40-75	40-70	30-50	8-20
	7-15	Extremely cobbly sandy loam, very cobbly loam, extremely cobbly clay loam	GC, GC-GM	A-4, A-6	0-20	24-60	70-85	20-50	10-45	5-35	28-45	8-20
	15-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Suggsville------	0-4	Clay	CH	A-7	0	0	100	100	90-100	90-100	54-82	40-59
	4-11	Clay, silty clay	CH	A-7	0	0	100	100	95-100	95-100	69-99	44-61
	11-42	Clay, silty clay	CH	A-7	0	0	100	100	95-100	95-100	69-99	44-61
	42-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Watsonia--------	0-4	Clay	CH	A-7	0	0	100	92-100	75-100	60-95	54-78	40-59
	4-15	Clay, silty clay	CH	A-7	0	0	100	92-100	75-100	80-98	50-89	40-59
	15-17	Clay, silty clay	CH	A-7	0	0	100	95-100	75-100	80-98	50-79	36-51
	17-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
PwF:												
Prim------------	0-7	Very cobbly clay loam	GC, GC-GM	A-7, A-6	0-24	15-30	75-90	40-70	40-75	40-70	30-50	8-20
	7-15	Extremely cobbly sandy loam, very cobbly loam, extremely cobbly clay loam	GC, GC-GM	A-4, A-6	0-20	24-60	70-85	20-50	10-45	5-35	28-45	8-20
	15-80	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*	
PwF:												
Suggsville------	0-4	Clay	CH	A-7	0	0	100	100	90-100	90-100	54-82	40-59
	4-11	Clay, silty clay	CH	A-7	0	0	100	100	95-100	95-100	69-99	44-61
	11-42	Clay, silty clay	CH	A-7	0	0	100	100	95-100	95-100	69-99	44-61
	42-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Watsonia--------	0-4	Clay	CH	A-7	0	0	100	92-100	75-100	60-95	54-78	40-59
	4-15	Clay, silty clay	CH	A-7	0	0	100	92-100	75-100	80-98	50-89	40-59
	15-17	Clay, silty clay	CH	A-7	0	0	100	95-100	75-100	80-98	50-79	36-59
	17-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
RaD:												
Rayburn---------	0-5	Silt loam	ML	A-4	0	0	98-100	95-100	80-99	75-90	16-30	NP-10
	5-8	Clay loam, fine sandy loam, loam	ML, CL	A-6, A-4	0	0	98-100	95-100	70-95	70-95	23-42	7-21
	8-20	Clay, silty clay	CH	A-7	0	0-5	98-100	95-100	90-100	85-95	51-80	25-50
	20-52	Clay, silty clay	CH	A-7	0	0-5	98-100	95-100	90-100	85-95	51-80	29-44
	52-59	Clay, silty clay, clay loam	CL, CH	A-6, A-7	0	0-10	95-100	90-99	60-80	55-75	30-60	12-30
	59-80	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
RvA:												
Riverview-------	0-12	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	90-100	60-80	16-33	3-12
	12-44	Loam, silty clay loam, sandy clay loam	CL, ML	A-4, A-6	0	0	100	100	90-100	60-95	20-40	10-25
	44-80	Sandy loam, loam	SC-SM, SM, CL-ML, ML	A-4	0	0	100	100	50-95	15-70	0-30	NP-12

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*	
SaA:												
Savannah--------	0-5	Fine sandy loam	SM, ML	A-4	0	0	98-100	90-100	80-100	30-65	10-30	2-10
	5-12	Fine sandy loam, sandy loam	ML, SM	A-4	0	0	98-100	90-100	80-100	30-65	10-30	2-10
	12-26	Loam, clay loam, sandy clay loam	ML, CL, SC	A-4, A-6	0	0	98-100	90-100	80-100	40-80	28-42	12-22
	26-80	Clay loam, sandy clay loam, loam	CL, SC	A-4, A-6	0	0	94-100	90-100	60-100	36-80	28-43	12-22
SbB:												
Smithdale-------	0-3	Loamy sand	SM	A-2	0	0	97-100	85-100	60-95	28-49	0-20	NP-5
	3-8	Loamy sand, sandy loam, fine sandy loam	SM, SP-SM	A-2, A-4	0	0	98-100	95-100	75-100	10-40	0-14	NP
	8-13	Sandy loam, fine sandy loam	SC-SM, SM	A-4	0	0	98-100	85-100	60-95	28-49	0-20	NP-5
	13-42	Sandy clay loam, clay loam, loam	CL, SC	A-4, A-6	0	0	98-100	85-100	80-95	45-75	23-38	7-16
	42-80	Sandy loam, fine sandy loam, sandy clay loam	CL, SC	A-4	0	0	98-100	85-100	65-95	36-75	10-30	NP-19
Boykin----------	0-5	Loamy sand	SM	A-2	0	0	97-100	95-100	70-98	17-45	0-24	NP-4
	5-26	Loamy sand, sand	SP-SM, SM	A-2	0	0	97-100	95-100	70-98	17-45	0-24	NP-4
	26-38	Sandy loam, sandy clay loam, fine sandy loam	CL, SC	A-4, A-6	0	0	95-100	95-100	80-98	36-55	20-45	8-30
	38-80	Sandy clay loam, sandy loam, fine sandy loam	CL, SC	A-4, A-6	0	0	95-100	95-100	80-98	36-55	20-45	8-30

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*	
SbD:												
Smithdale-------	0-3	Loamy sand	SM	A-2	0	0	97-100	85-100	60-95	28-49	0-20	NP-5
	3-8	Loamy sand, sandy loam, fine sandy loam	SM, SP-SM	A-4, A-2	0	0	98-100	95-100	75-100	10-40	0-14	NP
	8-13	Sandy loam, fine sandy loam	SC-SM, SM	A-4	0	0	98-100	85-100	60-95	28-49	0-20	NP-5
	13-42	Sandy clay loam, clay loam, loam	CL, SC	A-4, A-6	0	0	98-100	85-100	80-95	45-75	23-38	7-16
	42-80	Sandy loam, fine sandy loam, sandy clay loam	CL, SC	A-4	0	0	98-100	85-100	65-95	36-75	10-30	NP-19
Boykin----------	0-5	Loamy sand	SM	A-2	0	0	97-100	95-100	70-98	17-45	0-24	NP-4
	5-26	Loamy sand, sand	SP-SM, SM	A-2	0	0	97-100	95-100	70-98	17-45	0-24	NP-4
	26-38	Sandy loam, sandy clay loam, fine sandy loam	CL, SC	A-4, A-6	0	0	95-100	95-100	80-98	36-55	20-45	8-30
	38-80	Sandy clay loam, sandy loam, fine sandy loam	CL, SC	A-4, A-6	0	0	95-100	95-100	80-98	36-55	20-45	8-30
SsF:												
Smithdale-------	0-2	Sandy loam	SC-SM, SM	A-4	0	0	100	85-100	60-95	28-49	17-31	2-10
	2-7	Sandy loam, loamy sand, fine sandy loam	SM, SC-SM	A-2, A-4	0	0	98-100	95-100	75-100	10-40	15-27	1-10
	7-35	Sandy clay loam, clay loam, loam	SC, CL	A-6, A-4	0	0	98-100	85-100	80-95	45-75	23-38	7-16
	35-63	Sandy loam, sandy clay loam, loam	CL, SC	A-4, A-6	0	0	98-100	85-100	80-95	45-75	23-38	7-16
	63-80	Loamy sand, sandy loam, loam	SC-SM, SC, SM	A-4, A-2	0	0	100	85-100	65-95	25-70	10-30	NP-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	Plasticity index
	In				*Pct*	*Pct*					*Pct*	
SsF:												
Saffell---------	0-7	Gravelly sandy loam	GM	A-4, A-2	0	0-5	92-100	55-77	30-70	12-35	18-25	NP-5
	7-55	Very gravelly sandy clay loam, very gravelly sandy loam, extremely gravelly sandy loam	GC, GM	A-2, A-4	0	0-5	25-80	20-55	20-50	12-40	20-40	4-15
	55-80	Very gravelly loamy sand, extremely gravelly loamy sand, very gravelly sandy loam	GC-GM, GP-GM, GM	A-1, A-2	0	0-5	25-75	20-50	10-45	5-30	0-20	NP-7
ToD:												
Toxey-----------	0-3	Silty clay loam	CH, CL	A-7	0	0	100	100	95-100	90-100	42-64	30-40
	3-7	Clay, silty clay	CH	A-7	0	0	100	100	95-100	95-100	50-68	29-40
	7-27	Clay, silty clay	CH	A-7	0	0	100	95-100	95-100	90-100	50-74	29-48
	27-31	Silty clay, clay loam, clay, silty clay loam	CH, CL	A-7, A-6	0	0	100	90-100	70-100	55-95	37-59	19-36
	31-80	Clay loam, silty clay loam, clay, silty clay	CH, CL	A-6, A-7	0	0	100	90-100	70-100	55-95	35-55	18-35
Lorman----------	0-5	Fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	65-90	40-55	21-27	6-10
	5-9	Fine sandy loam, loam	ML, CL-ML	A-4	0	0	100	95-100	85-95	60-95	21-30	6-11
	9-18	Clay, silty clay	CH	A-7	0	0	95-100	95-100	95-100	90-95	51-75	29-42
	18-60	Clay, silty clay	CH	A-7	0	0	95-100	95-100	95-100	90-95	51-75	29-42
	60-80	Clay, clay loam, silty clay loam, silty clay	CH, CL	A-6, A-7	0	0	95-100	95-100	80-100	80-95	31-65	13-40

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	
UdC:												
Udorthents------	0-80	Variable	---	---	0	0	90-100	90-100	80-100	30-80	10-40	NP-25
UnA:												
Una-------------	0-5	Clay	CH	A-7	0	0	100	100	90-100	95-100	51-61	29-32
	5-42	Clay, silty clay loam, silty clay	CH, CL, MH	A-7	0	0	100	100	90-100	75-100	46-66	25-40
	42-80	Clay, silty clay loam, silty clay	CL, CH, MH	A-6, A-7	0	0	90-100	90-100	90-100	75-100	37-66	25-40
Ur:												
Urban land------	0-6	Variable	---	---	---	---	---	---	---	---	---	---
UuB:												
Urbo------------	0-4	Silty clay	CH	A-7	0	0	100	100	95-100	95-100	50-64	28-36
	4-13	Silty clay, clay, clay loam, silty clay loam	CL, CH, MH	A-7	0	0	100	100	90-100	75-95	44-65	25-40
	13-68	Silty clay, clay	CH, MH	A-7	0	0	100	100	95-100	80-98	45-64	25-40
	68-80	Sandy clay loam, clay loam, clay, silty clay	CH, CL, MH	A-7, A-6	0	0	100	100	60-100	55-95	35-59	17-40
Mooreville------	0-5	Clay loam	CL	A-7, A-6	0	0	100	100	65-100	55-90	30-45	19-28
	5-69	Clay loam, loam, sandy clay loam, silty clay loam	CL	A-6, A-4	0	0	100	100	60-95	50-90	20-40	12-28
	69-80	Sandy loam, loam, sandy clay loam, clay loam	CL, SC	A-6, A-4	0	0	100	95-100	55-95	35-90	20-40	6-28
Una-------------	0-5	Clay	CH	A-7	0	0	100	100	90-100	95-100	51-61	29-32
	5-42	Clay, silty clay loam, silty clay	CH, MH	A-7	0	0	100	100	90-100	75-100	46-66	25-40
	42-80	Clay, silty clay loam, silty clay	CL, CH, MH	A-6, A-7	0	0	90-100	90-100	90-100	75-100	37-66	25-40

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*	
WaB:												
Wadley----------	0-10	Loamy sand	SM	A-2	0	0	98-100	95-100	60-90	10-40	0-21	NP-3
	10-55	Loamy sand, loamy fine sand, sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-90	10-40	0-21	NP-6
	55-80	Sandy loam, sandy clay loam	SC, SC-SM	A-4, A-6	0	0	100	95-100	65-90	25-50	23-44	8-25
WsF:												
Wadley----------	0-10	Loamy sand	SM	A-2	0	0	98-100	95-100	60-90	10-40	0-21	NP-3
	10-55	Loamy sand, loamy fine sand, sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-90	10-40	0-21	NP-6
	55-80	Sandy loam, sandy clay loam	SC, SC-SM	A-4, A-6	0	0	100	95-100	65-90	25-50	23-44	8-25
Smithdale-------	0-3	Loamy sand	SM	A-2	0	0	97-100	85-100	60-95	28-49	0-20	NP-5
	3-8	Loamy sand, sandy loam, fine sandy loam	SM, SP-SM	A-2	0	0	98-100	95-100	75-100	10-40	0-14	NP
	8-13	Sandy loam, fine sandy loam	SC-SM, SM	A-4	0	0	98-100	85-100	60-95	28-49	0-20	NP-5
	13-42	Sandy clay loam, clay loam, loam	CL, SC	A-4, A-6	0	0	98-100	85-100	80-95	45-75	23-38	7-16
	42-80	Sandy loam, fine sandy loam, sandy clay loam	CL, SC	A-4	0	0	98-100	85-100	65-95	36-75	10-30	NP-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	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors		
										Kw	Kf	T
	In	Pct	Pct	Pct	g/cc	µm/sec	In/in	Pct	Pct			
ArC:												
Arundel--------------	0-5	30-50	30-45	15-25	1.40-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-2.0	.32	.37	3
	5-32	3-30	20-55	40-65	1.55-1.65	0.01-0.42	0.12-0.18	6.0-8.9	0.1-1.0	.28	.32	
	32-39	10-40	20-55	27-65	1.55-1.65	0.01-0.42	0.04-0.10	6.0-8.9	0.1-0.5	.20	.32	
	39-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
Cantuche-------------	0-4	30-50	32-45	10-20	1.30-1.50	14.00-42.00	0.06-0.13	0.0-2.9	0.5-2.0	.20	.28	2
	4-10	30-65	25-55	10-20	1.30-1.50	4.00-14.00	0.04-0.10	0.0-2.9	0.5-1.0	.20	.28	
	10-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
ArF:												
Arundel--------------	0-5	30-50	30-45	15-25	1.40-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-2.0	.32	.37	3
	5-32	3-30	20-55	40-65	1.55-1.65	0.01-0.42	0.12-0.18	6.0-8.9	0.1-1.0	.28	.32	
	32-39	10-40	20-55	27-65	1.55-1.65	0.01-0.42	0.04-0.10	6.0-8.9	0.1-0.5	.20	.32	
	39-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
Cantuche-------------	0-4	30-50	32-45	10-20	1.30-1.50	14.00-42.00	0.06-0.13	0.0-2.9	0.5-2.0	.20	.28	2
	4-10	30-65	25-55	10-20	1.30-1.50	4.00-14.00	0.04-0.10	0.0-2.9	0.5-1.0	.20	.28	
	10-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
ArG:												
Arundel--------------	0-5	30-50	30-45	15-25	1.40-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-2.0	.32	.37	3
	5-32	3-30	20-55	40-65	1.55-1.65	0.01-0.42	0.12-0.18	6.0-8.9	0.1-1.0	.28	.32	
	32-39	10-40	20-55	27-65	1.55-1.65	0.01-0.42	0.04-0.10	6.0-8.9	0.1-0.5	.20	.32	
	39-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
Cantuche-------------	0-4	30-50	32-45	10-20	1.30-1.50	14.00-42.00	0.06-0.13	0.0-2.9	0.5-1.0	.20	.28	2
	4-10	30-65	25-55	10-20	1.30-1.50	4.00-14.00	0.04-0.10	0.0-2.9	0.5-1.0	.20	.28	
	10-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
BaB:												
Bama-----------------	0-7	56-76	10-25	7-22	1.30-1.60	14.00-42.00	0.08-0.15	0.0-2.9	0.5-1.0	.24	.24	5
	7-24	40-65	20-40	20-35	1.40-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.1-1.0	.28	.28	
	24-87	35-60	20-46	20-35	1.40-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.1-0.5	.28	.28	
BoB:												
Brantley-------------	0-3	55-75	12-35	8-17	1.35-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-2.0	.28	.28	5
	3-11	40-75	15-40	8-21	1.35-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.0	.28	.28	
	11-43	20-55	10-45	35-55	1.35-1.55	1.40-4.00	0.12-0.20	3.0-5.9	0.1-1.0	.28	.28	
	43-56	30-65	15-45	20-35	1.35-1.55	1.40-4.00	0.12-0.20	0.0-2.9	0.1-0.5	.24	.24	
	56-80	35-80	10-65	10-35	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.20	.20	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors		
										Kw	Kf	T
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
BoB:												
Okeelala-------------	0-3	55-75	10-30	7-15	1.30-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5
	3-18	65-85	5-25	4-15	1.30-1.50	14.00-42.00	0.07-0.12	0.0-2.9	0.5-1.0	.15	.15	
	18-33	30-70	10-40	18-35	1.35-1.55	4.00-14.00	0.12-0.15	0.0-2.9	0.1-1.0	.28	.28	
	33-58	40-75	15-40	7-30	1.35-1.55	4.00-14.00	0.09-0.12	0.0-2.9	0.1-0.5	.24	.24	
	58-80	60-85	5-30	2-18	1.40-1.60	14.00-42.00	0.07-0.12	0.0-2.9	0.1-0.5	.15	.15	
BoD:												
Brantley-------------	0-3	55-75	12-35	8-17	1.35-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-2.0	.28	.28	5
	3-11	40-75	15-40	8-21	1.35-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.0	.28	.28	
	11-43	20-55	10-45	35-55	1.35-1.55	1.40-4.00	0.12-0.20	3.0-5.9	0.1-1.0	.28	.28	
	43-56	30-65	15-45	20-35	1.35-1.55	1.40-4.00	0.12-0.20	0.0-2.9	0.1-0.5	.24	.24	
	56-80	35-80	10-65	10-35	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.20	.20	
Okeelala-------------	0-3	55-75	10-30	7-15	1.30-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5
	3-18	65-85	5-25	4-15	1.30-1.50	14.00-42.00	0.07-0.12	0.0-2.9	0.5-1.0	.15	.15	
	18-33	30-70	10-40	18-35	1.35-1.55	4.00-14.00	0.12-0.15	0.0-2.9	0.1-1.0	.28	.28	
	33-58	40-75	15-40	7-30	1.35-1.55	4.00-14.00	0.09-0.12	0.0-2.9	0.1-0.5	.24	.24	
	58-80	60-85	5-30	2-18	1.40-1.60	14.00-42.00	0.07-0.12	0.0-2.9	0.0-0.5	.15	.15	
BoG:												
Brantley-------------	0-3	55-75	12-35	8-17	1.35-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-2.0	.28	.28	5
	3-11	40-75	15-40	8-21	1.35-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.0	.28	.28	
	11-43	20-55	10-45	35-55	1.35-1.55	1.40-4.00	0.12-0.20	3.0-5.9	0.1-1.0	.28	.28	
	43-56	30-65	15-45	20-35	1.35-1.55	1.40-4.00	0.12-0.20	0.0-2.9	0.1-0.5	.24	.24	
	56-80	35-80	10-65	10-35	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.20	.20	
Okeelala-------------	0-3	55-75	10-30	7-15	1.30-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5
	3-18	65-85	5-25	4-15	1.30-1.50	14.00-42.00	0.07-0.12	0.0-2.9	0.5-1.0	.15	.15	
	18-33	30-70	10-40	18-35	1.35-1.55	4.00-14.00	0.12-0.15	0.0-2.9	0.1-1.0	.28	.28	
	33-58	40-75	15-40	7-30	1.35-1.55	4.00-14.00	0.09-0.12	0.0-2.9	0.1-0.5	.24	.24	
	58-80	60-85	5-30	2-18	1.40-1.60	14.00-42.00	0.07-0.12	0.0-2.9	0.1-0.5	.15	.15	
CaA:												
Cahaba---------------	0-8	55-75	12-30	7-17	1.35-1.60	14.00-42.00	0.10-0.14	0.0-2.9	0.5-2.0	.24	.24	5
	8-55	35-65	12-40	18-35	1.35-1.60	4.00-14.00	0.12-0.20	0.0-2.9	0.1-1.0	.28	.28	
	55-72	55-85	8-30	6-17	1.40-1.70	14.00-42.00	0.05-0.10	0.0-2.9	0.1-0.5	.24	.24	
ChA:												
Chrysler-------------	0-7	30-50	30-50	10-20	1.35-1.55	4.00-14.00	0.14-0.18	0.0-2.9	0.5-2.0	.28	.28	5
	7-17	8-43	25-50	27-60	1.20-1.50	1.40-4.00	0.12-0.16	3.0-5.9	0.1-1.0	.32	.32	
	17-80	5-35	20-55	35-60	1.20-1.50	0.42-1.40	0.10-0.16	3.0-5.9	0.1-0.5	.32	.32	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors		
										Kw	Kf	T
	In	Pct	Pct	Pct	g/cc	µm/sec	In/in	Pct	Pct			
DaA:												
Daleville------------	0-2	30-52	20-42	8-25	1.40-1.50	4.00-14.00	0.14-0.18	0.0-2.9	0.5-2.0	.24	.24	5
	2-14	35-65	20-40	8-22	1.40-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.1-1.0	.24	.24	
	14-36	30-50	25-45	16-35	1.40-1.50	1.40-4.00	0.15-0.19	3.0-5.9	0.1-0.5	.32	.32	
	36-84	30-60	15-45	24-45	1.40-1.50	0.42-1.40	0.13-0.18	3.0-5.9	0.1-0.5	.37	.37	
Quitman--------------	0-5	50-75	10-35	5-15	1.35-1.65	14.00-42.00	0.15-0.24	0.0-2.9	0.5-2.0	.24	.24	5
	5-11	50-75	10-35	5-15	1.35-1.65	14.00-42.00	0.15-0.24	0.0-2.9	0.1-1.0	.24	.24	
	11-22	40-65	25-50	18-35	1.45-1.70	4.00-14.00	0.12-0.17	0.0-2.9	0.1-1.0	.28	.28	
	22-80	35-55	25-50	18-35	1.45-1.70	1.40-4.00	0.11-0.17	0.0-2.9	0.1-0.5	.28	.28	
EsA:												
Escambia-------------	0-7	55-75	15-35	5-14	1.35-1.55	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	7-11	30-70	20-45	8-18	1.35-1.55	14.00-42.00	0.15-0.20	0.0-2.9	0.5-1.0	.24	.24	
	11-33	30-70	20-45	8-18	1.45-1.65	4.00-14.00	0.10-0.18	0.0-2.9	0.1-1.0	.24	.24	
	33-80	35-70	10-45	8-35	1.45-1.65	0.42-4.00	0.14-0.19	0.0-2.9	0.1-0.5	.28	.28	
FaE:												
Flomaton-------------	0-7	72-88	3-15	1-10	1.40-1.50	42.00-141.00	0.01-0.05	0.0-2.9	0.1-1.0	.05	.15	5
	7-14	72-95	3-15	4-13	1.40-1.50	42.00-141.00	0.01-0.05	0.0-2.9	0.1-0.5	.02	.15	
	14-84	72-95	3-12	4-13	1.40-1.50	42.00-141.00	0.02-0.07	0.0-2.9	0.1-0.5	.02	.15	
	84-100	82-95	3-10	1-9	1.40-1.50	42.00-141.00	0.01-0.05	0.0-2.9	0.1-0.5	.05	.15	
Smithdale------------	0-3	75-87	5-20	2-10	1.40-1.50	42.00-141.00	0.14-0.16	0.0-2.9	0.5-2.0	.15	.15	5
	3-8	75-87	5-20	2-10	1.35-1.65	42.00-141.00	0.07-0.12	0.0-2.9	0.5-1.0	.15	.15	
	8-13	55-85	10-30	2-15	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.1-1.0	.28	.28	
	13-42	40-65	15-45	18-33	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.1-0.5	.28	.28	
	42-80	40-80	5-35	12-27	1.40-1.55	4.00-42.00	0.14-0.16	0.0-2.9	0.1-0.5	.24	.24	
Wadley---------------	0-10	75-87	6-18	4-10	1.35-1.65	42.00-141.00	0.08-0.12	0.0-2.9	0.5-1.0	.10	.10	5
	10-55	75-92	4-15	2-10	1.35-1.65	42.00-141.00	0.07-0.11	0.0-2.9	0.1-0.5	.10	.10	
	55-80	55-75	10-30	13-35	1.55-1.65	4.00-14.00	0.13-0.17	0.0-2.9	0.1-0.5	.20	.20	
FlA:												
Fluvaquents----------	0-6	50-75	10-45	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	10-65	15-60	10-45	1.35-1.60	0.42-1.40	0.10-0.20	0.0-2.9	0.5-5.0	.37	.37	
HaB:												
Halso----------------	0-2	55-70	20-35	6-20	1.30-1.60	4.00-14.00	0.11-0.15	0.0-2.9	0.5-2.0	.28	.28	4
	2-4	5-45	25-60	27-35	1.20-1.50	4.00-14.00	0.14-0.20	3.0-5.9	0.5-2.0	.32	.32	
	4-40	5-45	20-55	40-70	1.10-1.40	0.01-0.42	0.12-0.18	6.0-8.9	0.1-1.0	.32	.32	
	40-52	5-35	20-60	27-55	1.25-1.65	0.01-0.42	0.12-0.18	3.0-5.9	0.1-0.5	.24	.37	
	52-80	---	---	---	---	0.00-0.01	---	---	---	---	---	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
HaD2:												
Halso----------------	0-2	55-70	20-35	6-20	1.30-1.60	4.00-14.00	0.11-0.15	0.0-2.9	0.5-2.0	.28	.28	4
	2-4	5-45	25-60	27-35	1.20-1.50	4.00-14.00	0.14-0.20	3.0-5.9	0.5-2.0	.32	.32	
	4-40	5-45	20-55	40-70	1.10-1.40	0.01-0.42	0.12-0.18	6.0-8.9	0.1-1.0	.32	.32	
	40-52	5-35	20-60	27-55	1.25-1.65	0.01-0.42	0.12-0.18	3.0-5.9	0.1-0.5	.24	.37	
	52-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
HtA:												
Harleston------------	0-6	75-88	5-19	2-5	1.35-1.45	14.00-42.00	0.08-0.11	0.0-2.9	0.5-2.0	.15	.15	5
	6-13	60-85	5-30	2-8	1.35-1.45	14.00-42.00	0.08-0.14	0.0-2.9	0.5-1.0	.15	.15	
	13-27	40-75	10-45	8-18	1.55-1.65	4.00-14.00	0.09-0.16	0.0-2.9	0.1-1.0	.24	.24	
	27-65	40-85	10-45	8-27	1.55-1.65	4.00-14.00	0.09-0.16	0.0-2.9	0.1-0.5	.20	.20	
IBA:												
Iuka-----------------	0-3	55-75	10-40	6-15	1.40-1.50	14.00-42.00	0.10-0.15	0.0-2.9	0.5-3.0	.24	.24	5
	3-31	30-82	10-60	8-18	1.30-1.40	4.00-14.00	0.10-0.20	0.0-2.9	0.5-2.0	.28	.28	
	31-80	50-90	5-35	5-15	1.40-1.50	4.00-14.00	0.10-0.20	0.0-2.9	0.1-2.0	.20	.20	
Bibb-----------------	0-7	55-75	10-34	2-18	1.50-1.70	14.00-42.00	0.12-0.18	0.0-2.9	1.0-5.0	.20	.20	5
	7-72	40-85	8-34	2-18	1.45-1.75	4.00-14.00	0.10-0.20	0.0-2.9	0.5-2.0	.28	.28	
Mantachie------------	0-9	20-40	50-65	10-20	1.40-1.50	14.00-42.00	0.16-0.20	0.0-2.9	1.0-3.0	.28	.28	5
	9-20	35-65	15-50	18-34	1.50-1.60	4.00-14.00	0.14-0.20	0.0-2.9	0.5-2.0	.28	.28	
	20-39	30-65	15-45	18-34	1.50-1.60	4.00-14.00	0.14-0.19	0.0-2.9	0.1-2.0	.28	.28	
	39-80	40-80	8-40	4-25	1.50-1.60	4.00-42.00	0.08-0.18	0.0-2.9	0.1-2.0	.37	.37	
IgA:												
Izagora--------------	0-4	55-75	12-35	8-18	1.40-1.65	14.00-42.00	0.13-0.15	0.0-2.9	0.5-2.0	.28	.28	5
	4-7	30-75	12-55	8-20	1.40-1.65	14.00-42.00	0.11-0.16	0.0-2.9	0.5-1.5	.28	.28	
	7-35	15-65	12-55	18-30	1.40-1.60	4.00-14.00	0.12-0.20	0.0-2.9	0.1-1.0	.32	.32	
	35-80	10-60	15-55	30-55	1.30-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.1-0.5	.32	.32	
IjB:												
Izagora--------------	0-4	55-75	12-35	8-18	1.40-1.65	14.00-42.00	0.13-0.15	0.0-2.9	0.5-2.0	.28	.28	5
	4-7	30-75	12-55	8-20	1.40-1.65	14.00-42.00	0.11-0.16	0.0-2.9	0.5-1.5	.28	.28	
	7-35	15-65	12-55	18-30	1.40-1.60	4.00-14.00	0.12-0.20	0.0-2.9	0.1-1.0	.32	.32	
	35-80	10-60	15-55	30-55	1.30-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.1-0.5	.32	.32	
Jedburg--------------	0-4	40-65	15-40	10-18	1.40-1.50	14.00-42.00	0.11-0.17	0.0-2.9	1.0-3.0	.28	.28	5
	4-10	10-75	10-60	12-22	1.40-1.50	14.00-42.00	0.12-0.20	0.0-2.9	0.5-1.5	.28	.28	
	10-24	15-50	30-55	18-30	1.30-1.40	4.00-14.00	0.15-0.22	0.0-2.9	0.5-1.0	.28	.28	
	24-42	30-65	10-45	20-35	1.30-1.40	1.40-4.00	0.12-0.20	0.0-2.9	0.1-0.5	.32	.32	
	42-80	25-60	8-40	27-45	1.20-1.40	1.40-4.00	0.12-0.20	0.0-2.9	0.1-0.5	.28	.28	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors		
										Kw	Kf	T
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
JdA:												
Jedburg---------------	0-4	40-65	15-40	10-18	1.40-1.50	14.00-42.00	0.11-0.17	0.0-2.9	1.0-3.0	.28	.28	5
	4-10	10-75	10-60	12-22	1.40-1.50	14.00-42.00	0.12-0.20	0.0-2.9	0.5-1.5	.28	.28	
	10-24	15-50	30-55	18-30	1.30-1.40	4.00-14.00	0.15-0.22	0.0-2.9	0.5-1.0	.28	.28	
	24-42	30-65	10-45	20-35	1.30-1.40	1.40-4.00	0.12-0.20	0.0-2.9	0.1-0.5	.32	.32	
	42-80	25-60	8-40	27-45	1.20-1.40	1.40-4.00	0.12-0.20	0.0-2.9	0.1-0.5	.28	.28	
LaA:												
Latonia---------------	0-8	75-88	2-20	3-12	1.40-1.50	42.00-141.00	0.05-0.10	0.0-2.9	0.5-2.0	.15	.15	5
	8-38	45-75	10-40	10-16	1.40-1.50	14.00-42.00	0.10-0.15	0.0-2.9	0.1-1.0	.20	.20	
	38-80	75-97	1-20	3-10	1.40-1.50	14.00-141.00	0.05-0.10	0.0-2.9	0.1-0.5	.15	.15	
LeA:												
Lenoir----------------	0-2	20-40	50-65	6-20	1.30-1.50	4.00-14.00	0.14-0.18	0.0-2.9	1.0-4.0	.37	.37	5
	2-6	25-65	20-60	8-26	1.30-1.50	4.00-14.00	0.12-0.16	0.0-2.9	0.5-2.0	.37	.37	
	6-12	8-45	20-50	35-60	1.20-1.35	4.00-14.00	0.13-0.15	3.0-5.9	0.5-2.0	.32	.32	
	12-80	5-40	20-50	35-60	1.20-1.35	0.42-1.40	0.13-0.15	3.0-5.9	0.1-1.0	.32	.32	
LmD:												
Lorman----------------	0-5	55-75	12-30	10-17	1.30-1.65	14.00-42.00	0.13-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	5-9	45-75	15-35	10-17	1.30-1.65	14.00-42.00	0.13-0.16	0.0-2.9	0.5-1.0	.24	.24	
	9-18	10-35	20-50	40-55	1.20-1.50	0.01-0.42	0.16-0.20	9.0-25.0	0.1-1.0	.32	.32	
	18-60	10-35	20-50	40-55	1.20-1.50	0.01-0.42	0.16-0.20	9.0-25.0	0.1-0.5	.32	.32	
	60-80	5-35	20-50	20-55	1.25-1.65	0.01-0.42	0.12-0.18	3.0-9.0	0.1-0.5	.32	.32	
LoF:												
Lorman----------------	0-5	55-75	12-30	10-17	1.30-1.65	14.00-42.00	0.13-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	5-9	45-75	15-35	10-17	1.30-1.65	14.00-42.00	0.13-0.16	0.0-2.9	0.5-1.0	.24	.24	
	9-18	10-35	20-50	40-55	1.20-1.50	0.01-0.42	0.16-0.20	9.0-25.0	0.1-1.0	.32	.32	
	18-60	10-35	20-50	40-55	1.20-1.50	0.01-0.42	0.16-0.20	9.0-25.0	0.1-0.5	.32	.32	
	60-80	5-35	20-50	20-55	1.25-1.65	0.01-0.42	0.12-0.18	3.0-9.0	0.1-0.5	.32	.32	
Toxey-----------------	0-3	5-20	45-60	27-39	1.10-1.40	1.40-4.00	0.15-0.19	6.0-8.9	1.0-3.0	.32	.32	4
	3-7	7-35	20-50	40-55	1.00-1.40	0.01-0.42	0.14-0.18	6.0-8.9	0.5-2.0	.32	.32	
	7-27	7-40	20-55	40-65	1.00-1.40	0.01-0.42	0.12-0.16	6.0-8.9	0.5-1.0	.37	.37	
	27-31	5-40	20-55	27-50	1.00-1.40	0.01-0.42	0.08-0.12	3.0-5.9	0.1-0.5	.28	.28	
	31-80	5-40	25-55	27-50	1.00-1.40	0.01-0.42	0.08-0.12	3.0-5.9	0.1-0.5	.28	.28	
Okeelala--------------	0-3	55-75	10-30	7-15	1.30-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5
	3-18	65-85	5-25	4-15	1.30-1.50	14.00-42.00	0.07-0.12	0.0-2.9	0.5-1.0	.15	.15	
	18-33	30-70	10-40	18-35	1.35-1.55	4.00-14.00	0.12-0.15	0.0-2.9	0.1-0.5	.28	.28	
	33-58	40-75	15-40	7-30	1.35-1.55	4.00-14.00	0.09-0.12	0.0-2.9	0.1-0.5	.24	.24	
	58-80	60-85	5-30	2-18	1.40-1.60	14.00-42.00	0.07-0.12	0.0-2.9	0.1-0.5	.15	.15	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	Pct	Pct	g/cc	µm/sec	In/in	Pct	Pct			
LsA:												
Lucedale-------------	0-7	55-70	15-35	7-20	1.40-1.55	14.00-42.00	0.15-0.20	0.0-2.9	0.5-2.0	.24	.24	5
	7-80	35-65	20-40	20-35	1.55-1.70	4.00-14.00	0.14-0.18	0.0-2.9	0.1-1.0	.28	.28	
LuC:												
Lucedale-------------	0-7	55-70	15-35	7-20	1.40-1.55	14.00-42.00	0.15-0.20	0.0-2.9	0.5-2.0	.24	.24	5
	7-80	35-65	20-40	20-35	1.55-1.70	4.00-14.00	0.14-0.18	0.0-2.9	0.1-1.0	.28	.28	
Bama-----------------	0-7	56-76	10-25	7-22	1.30-1.60	14.00-42.00	0.08-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	7-24	40-65	20-40	20-35	1.40-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.1-1.0	.28	.28	
	24-87	35-60	20-46	20-35	1.40-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.1-0.5	.28	.28	
Urban land-----------	0-6	---	---	---	---	---	---	---	---	---	---	--
LvB:												
Luverne--------------	0-6	52-75	10-30	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
	6-23	20-60	8-30	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.5-1.0	.28	.28	
	23-34	25-65	8-30	30-55	1.35-1.65	1.40-4.00	0.12-0.18	0.0-2.9	0.1-0.5	.28	.28	
	34-80	30-85	5-45	8-42	1.35-1.65	1.40-4.00	0.05-0.10	0.0-2.9	0.1-0.5	.28	.28	
LvD:												
Luverne--------------	0-6	52-75	10-30	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
	6-23	20-60	8-30	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.5-1.0	.28	.28	
	23-34	25-65	8-30	20-55	1.35-1.65	1.40-4.00	0.12-0.18	0.0-2.9	0.1-0.5	.28	.28	
	34-80	30-85	5-45	8-42	1.35-1.65	1.40-4.00	0.05-0.10	0.0-2.9	0.1-0.5	.28	.28	
LvF:												
Luverne--------------	0-6	52-75	10-30	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
	6-23	20-60	8-30	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.5-1.0	.28	.28	
	23-34	25-65	8-30	30-55	1.35-1.65	1.40-4.00	0.12-0.18	0.0-2.9	0.1-0.5	.28	.28	
	34-80	30-85	5-45	8-42	1.35-1.65	1.40-4.00	0.05-0.10	0.0-2.9	0.1-0.5	.28	.28	
LxD:												
Luverne--------------	0-6	52-75	10-30	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
	6-23	20-60	8-30	35-50	1.25-1.55	1.40-4.00	0.12-0.18	3.0-5.9	0.2-1.0	.28	.28	
	23-34	25-65	8-30	30-55	1.35-1.65	1.40-4.00	0.12-0.18	0.0-2.9	0.1-0.5	.28	.28	
	34-80	30-85	5-45	8-42	1.35-1.65	1.40-4.00	0.05-0.10	0.0-2.9	0.1-0.5	.28	.28	
Urban land-----------	0-6	---	---	---	---	---	---	---	---	---	---	--
MaB:												
Malbis---------------	0-4	55-75	10-40	10-18	1.30-1.60	14.00-42.00	0.10-0.14	0.0-2.9	0.5-2.0	.24	.24	5
	4-9	55-75	10-35	10-18	1.30-1.60	14.00-42.00	0.10-0.14	0.0-2.9	0.5-1.0	.24	.24	
	9-38	30-65	15-45	18-33	1.30-1.70	4.00-14.00	0.12-0.20	0.0-2.9	0.1-0.5	.28	.28	
	38-80	30-65	15-45	20-35	1.40-1.60	1.40-4.00	0.06-0.12	0.0-2.9	0.1-0.5	.28	.28	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors		
										Kw	Kf	T
	In	Pct	Pct	Pct	g/cc	µm/sec	In/in	Pct	Pct			
MbF:												
Maubila----------------	0-5	55-85	15-40	5-18	1.45-1.65	14.00-42.00	0.08-0.12	0.0-2.9	0.5-1.0	.24	.28	4
	5-8	52-85	10-40	5-12	1.40-1.60	14.00-42.00	0.08-0.12	3.0-5.9	0.1-0.5	.24	.28	
	8-15	20-55	15-45	20-55	1.40-1.60	0.42-1.40	0.12-0.18	3.0-5.9	0.1-0.5	.32	.32	
	15-55	15-45	20-50	35-60	1.40-1.60	0.42-1.40	0.05-0.10	3.0-5.9	0.1-0.5	.32	.32	
	55-80	15-45	20-50	15-60	1.40-1.60	0.01-1.40	0.05-0.10	3.0-5.9	0.1-0.5	.32	.32	
Wadley-----------------	0-10	75-87	6-18	4-10	1.35-1.65	42.00-141.00	0.08-0.12	0.0-2.9	0.5-1.0	.10	.10	5
	10-55	75-92	4-15	2-10	1.35-1.65	42.00-141.00	0.07-0.11	0.0-2.9	0.1-0.5	.10	.10	
	55-80	55-75	10-30	13-35	1.55-1.65	4.00-14.00	0.13-0.17	0.0-2.9	0.1-0.5	.20	.20	
Smithdale--------------	0-2	55-80	8-30	5-15	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.5-2.0	.24	.24	5
	2-7	60-84	8-25	4-15	1.35-1.65	14.00-42.00	0.07-0.12	0.0-2.9	0.1-1.0	.24	.24	
	7-35	40-65	15-40	18-33	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.1-1.0	.28	.28	
	35-63	40-70	8-35	10-25	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.1-0.5	.28	.28	
	63-80	45-85	5-35	5-18	1.40-1.55	14.00-42.00	0.22-0.40	0.0-2.9	0.1-0.5	.24	.24	
MdA:												
McCrory----------------	0-4	15-40	50-65	8-20	1.30-1.60	4.00-14.00	0.16-0.18	0.0-2.9	1.0-4.0	.24	.24	4
	4-14	15-65	25-60	5-20	1.30-1.60	4.00-14.00	0.16-0.18	0.0-2.9	0.5-2.0	.24	.24	
	14-23	30-65	10-50	10-30	1.30-1.60	0.42-1.40	0.10-0.16	0.0-2.9	0.1-1.0	.32	.32	
	23-58	35-70	10-45	15-35	1.30-1.60	0.42-1.40	0.08-0.18	0.0-2.9	0.1-1.0	.32	.32	
	58-72	50-70	15-40	5-20	1.30-1.65	1.40-4.00	0.10-0.12	0.0-2.9	0.1-0.5	.24	.24	
Deerford---------------	0-3	30-50	30-50	5-27	1.30-1.60	4.00-14.00	0.21-0.23	0.0-2.9	1.0-4.0	.28	.28	4
	3-10	55-75	15-40	3-16	1.30-1.60	4.00-14.00	0.20-0.22	0.0-2.9	0.5-2.0	.28	.28	
	10-35	25-70	15-45	15-35	1.30-1.60	0.42-1.40	0.08-0.18	0.0-2.9	0.1-1.0	.32	.32	
	35-49	25-65	15-45	10-35	1.30-1.60	0.42-1.40	0.08-0.18	0.0-2.9	0.1-0.5	.32	.32	
	49-80	35-70	10-40	10-30	1.30-1.65	1.40-4.00	0.03-0.12	0.0-2.9	0.1-0.5	.28	.28	
MyA:												
Myatt------------------	0-3	55-75	15-35	7-20	1.30-1.60	4.00-14.00	0.11-0.20	0.0-2.9	0.5-4.0	.28	.28	5
	3-14	35-75	20-45	15-27	1.30-1.60	4.00-14.00	0.13-0.18	0.0-2.9	0.1-1.0	.28	.28	
	14-55	30-70	15-45	18-35	1.30-1.50	1.40-4.00	0.12-0.20	0.0-2.9	0.1-1.0	.28	.28	
	55-80	35-75	10-45	7-30	1.30-1.50	1.40-14.00	0.10-0.20	0.0-2.9	0.1-0.5	.24	.32	
OcA:												
Ochlockonee------------	0-5	52-78	10-35	3-18	1.40-1.60	14.00-42.00	0.07-0.14	0.0-2.9	0.5-2.0	.20	.20	5
	5-34	25-75	15-60	8-18	1.40-1.60	14.00-42.00	0.10-0.20	0.0-2.9	0.1-2.0	.24	.24	
	34-40	30-85	10-60	3-18	1.40-1.70	14.00-42.00	0.06-0.12	0.0-2.9	0.5-2.0	.28	.28	
	40-80	30-85	10-60	3-18	1.40-1.70	14.00-42.00	0.06-0.15	0.0-2.9	0.1-1.0	.24	.24	
OdB:												
Ocilla-----------------	0-3	76-88	5-15	4-10	1.45-1.65	42.00-141.00	0.05-0.08	0.0-2.9	0.5-2.0	.10	.10	5
	3-31	75-88	2-12	5-10	1.30-1.60	42.00-141.00	0.05-0.08	0.0-2.9	0.1-1.0	.10	.10	
	31-80	45-75	5-30	15-34	1.55-1.70	4.00-14.00	0.09-0.12	0.0-2.9	0.1-0.5	.24	.24	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors		
										Kw	Kf	T
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
OdB:												
Pelham---------------	0-7	80-88	2-12	5-10	1.50-1.70	42.00-141.00	0.05-0.08	0.0-2.9	0.5-2.0	.10	.10	5
	7-32	75-88	2-12	5-10	1.30-1.60	42.00-141.00	0.05-0.08	0.0-2.9	0.1-1.0	.10	.10	
	32-80	50-70	15-35	15-30	1.30-1.60	4.00-14.00	0.10-0.16	0.0-2.9	0.1-0.5	.24	.24	
OkF:												
Okeelala-------------	0-3	55-75	10-30	7-15	1.30-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5
	3-18	65-85	5-25	4-15	1.30-1.50	14.00-42.00	0.07-0.12	0.0-2.9	0.5-1.0	.15	.15	
	18-33	30-70	10-40	18-35	1.35-1.55	4.00-14.00	0.12-0.15	0.0-2.9	0.1-1.0	.28	.28	
	33-58	40-75	15-40	7-30	1.35-1.55	4.00-14.00	0.09-0.12	0.0-2.9	0.1-0.5	.24	.24	
	58-80	60-85	5-30	2-18	1.40-1.60	14.00-42.00	0.07-0.12	0.0-2.9	0.1-0.5	.15	.15	
Brantley-------------	0-3	55-75	12-35	8-17	1.35-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-2.0	.28	.28	5
	3-11	40-75	15-40	8-21	1.35-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.0	.28	.28	
	11-43	20-55	10-45	35-55	1.35-1.55	1.40-4.00	0.12-0.20	3.0-5.9	0.2-0.8	.28	.28	
	43-56	30-65	15-45	20-35	1.35-1.55	1.40-4.00	0.12-0.20	0.0-2.9	0.1-0.5	.24	.24	
	56-80	35-80	10-65	10-35	1.40-1.65	4.00-14.00	0.10-0.15	0.0-2.9	0.1-0.5	.20	.20	
OmC:												
Olla-----------------	0-4	75-85	8-20	4-10	1.30-1.65	14.00-42.00	0.08-0.13	0.0-2.9	0.5-2.0	.15	.15	5
	4-13	70-85	8-25	4-15	1.30-1.50	14.00-42.00	0.06-0.12	0.0-2.9	0.5-1.0	.15	.15	
	13-22	35-65	10-35	20-40	1.30-1.50	4.00-14.00	0.10-0.16	0.0-2.9	0.1-1.0	.28	.28	
	22-37	35-70	10-35	12-35	1.65-1.80	4.00-14.00	0.10-0.14	0.0-2.9	0.1-0.5	.24	.24	
	37-80	35-70	10-35	8-45	1.40-1.60	1.40-4.00	0.08-0.12	3.0-5.9	0.1-0.5	.28	.28	
Maubila--------------	0-5	55-85	15-40	5-18	1.45-1.65	14.00-42.00	0.08-0.12	0.0-2.9	0.5-1.0	.24	.28	4
	5-8	52-85	10-40	5-12	1.40-1.60	14.00-42.00	0.08-0.12	3.0-5.9	0.5-1.0	.24	.28	
	8-15	20-55	20-45	30-55	1.40-1.60	0.42-1.40	0.12-0.18	3.0-5.9	0.1-0.5	.32	.32	
	15-55	15-45	20-50	35-60	1.40-1.60	0.42-1.40	0.05-0.10	3.0-5.9	0.1-0.5	.32	.32	
	55-80	15-45	20-50	15-60	1.40-1.60	0.01-1.40	0.05-0.10	3.0-5.9	0.1-0.5	.32	.32	
Pg:												
Pits-----------------	0-60	---	---	---	---	---	---	---	---	---	---	--
PrG:												
Prim-----------------	0-7	25-45	18-45	15-39	1.20-1.35	4.00-14.00	0.09-0.11	3.0-5.9	1.0-5.0	.15	.32	2
	7-15	30-70	18-45	15-30	1.20-1.35	4.00-14.00	0.03-0.05	3.0-5.9	1.0-2.0	.15	.24	
	15-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
Eutrudepts-----------	0-4	15-35	15-45	27-39	1.10-1.40	1.40-4.00	0.12-0.16	3.0-6.0	1.0-5.0	.32	.32	3
	4-30	3-30	15-50	27-60	1.00-1.40	0.01-1.40	0.12-0.16	3.0-8.9	0.5-2.0	.32	.32	
	30-80	---	---	---	---	0.00-0.01	---	---	---	---	---	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	Pct	Pct	g/cc	µm/sec	In/in	Pct	Pct			
PwC:												
Prim-----------------	0-7	25-45	18-45	15-39	1.20-1.35	4.00-14.00	0.09-0.11	3.0-5.9	1.0-5.0	.15	.32	2
	7-15	30-70	18-45	15-30	1.20-1.35	4.00-14.00	0.03-0.05	3.0-5.9	1.0-2.0	.15	.24	
	15-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
Suggsville-----------	0-4	15-40	15-40	40-60	1.10-1.40	0.42-1.40	0.12-0.16	6.0-8.9	1.0-5.0	.32	.32	4
	4-11	5-25	15-40	60-80	1.00-1.30	0.42-1.40	0.12-0.16	9.0-25.0	0.5-2.0	.32	.32	
	11-42	2-20	10-40	60-87	1.00-1.30	0.01-0.42	0.12-0.16	9.0-25.0	0.1-1.0	.32	.32	
	42-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
Watsonia-------------	0-4	15-35	15-35	40-60	1.10-1.40	0.42-1.40	0.12-0.16	6.0-8.9	1.0-5.0	.32	.32	2
	4-15	3-30	15-50	40-80	1.00-1.40	0.01-0.42	0.12-0.16	6.0-8.9	0.5-2.0	.32	.32	
	15-17	5-30	15-50	40-70	1.00-1.40	0.01-0.42	0.12-0.16	6.0-8.9	0.1-1.0	.37	.37	
	17-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
PwF:												
Prim-----------------	0-7	25-45	18-45	15-39	1.20-1.35	4.00-14.00	0.09-0.11	3.0-5.9	1.0-5.0	.15	.32	2
	7-15	30-70	18-45	15-30	1.20-1.35	4.00-14.00	0.03-0.05	3.0-5.9	1.0-2.0	.15	.24	
	15-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
Suggsville-----------	0-4	15-40	15-40	40-60	1.10-1.40	0.42-1.40	0.12-0.16	6.0-8.9	1.0-5.0	.32	.32	4
	4-11	5-25	15-40	60-80	1.00-1.30	0.42-1.40	0.12-0.16	9.0-25.0	0.5-2.0	.32	.32	
	11-42	2-20	10-40	60-87	1.00-1.30	0.01-0.42	0.12-0.16	9.0-25.0	0.1-1.0	.32	.32	
	42-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
Watsonia-------------	0-4	15-35	15-35	40-60	1.10-1.40	0.42-1.40	0.12-0.16	6.0-8.9	1.0-5.0	.32	.32	2
	4-15	3-30	15-50	40-80	1.00-1.40	0.01-0.42	0.12-0.16	6.0-8.9	0.5-2.0	.32	.32	
	15-17	5-30	15-50	40-70	1.00-1.40	0.01-0.42	0.12-0.16	6.0-8.9	0.1-1.0	.37	.37	
	17-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
RaD:												
Rayburn--------------	0-5	15-35	50-65	10-26	1.40-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-2.0	.37	.37	4
	5-8	20-60	20-70	12-30	1.40-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-2.0	.32	.32	
	8-20	5-35	20-50	40-60	1.30-1.50	0.42-1.40	0.12-0.17	6.0-8.9	0.1-1.0	.32	.32	
	20-52	3-35	25-50	40-60	1.30-1.50	0.01-0.42	0.12-0.17	6.0-8.9	0.1-0.5	.32	.32	
	52-59	5-35	25-60	27-55	1.25-1.65	0.01-0.42	0.12-0.18	6.0-8.9	0.1-0.5	.32	.32	
	59-80	---	---	---	---	0.00-0.01	---	---	---	---	---	
RvA:												
Riverview------------	0-12	55-75	5-40	4-18	1.30-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.5-2.0	.24	.24	5
	12-44	15-60	15-60	18-35	1.20-1.40	4.00-14.00	0.15-0.22	0.0-2.9	0.5-1.0	.24	.24	
	44-80	45-88	5-40	4-18	1.20-1.50	4.00-14.00	0.07-0.11	0.0-2.9	0.5-1.0	.24	.24	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	Pct	Pct	g/cc	µm/sec	In/in	Pct	Pct			
SaA:												
Savannah-------------	0-5	50-65	20-45	3-16	1.40-1.60	4.00-14.00	0.12-0.15	0.0-2.9	0.5-2.0	.24	.24	4
	5-12	48-70	20-45	3-16	1.40-1.60	4.00-14.00	0.12-0.16	0.0-2.9	0.5-1.0	.24	.24	
	12-26	35-60	20-50	18-35	1.45-1.65	4.00-14.00	0.15-0.18	0.0-2.9	0.1-0.5	.28	.28	
	26-80	35-60	20-50	18-35	1.60-1.80	1.40-4.00	0.05-0.10	0.0-2.9	0.1-0.5	.24	.24	
SbB:												
Smithdale------------	0-3	75-87	5-20	2-10	1.40-1.50	42.00-141.00	0.14-0.16	0.0-2.9	0.5-2.0	.15	.15	5
	3-8	75-87	5-20	2-10	1.35-1.65	42.00-141.00	0.07-0.12	0.0-2.9	0.5-1.0	.15	.15	
	8-13	55-85	10-30	2-15	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.1-1.0	.28	.28	
	13-42	40-65	15-45	18-33	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.1-0.5	.28	.28	
	42-80	40-80	5-35	12-27	1.40-1.55	4.00-14.00	0.14-0.16	0.0-2.9	0.1-0.5	.24	.24	
Boykin---------------	0-5	72-88	5-25	1-10	1.40-1.60	42.00-141.00	0.05-0.09	0.0-2.9	0.5-1.0	.10	.10	5
	5-26	72-95	5-25	1-10	1.40-1.60	42.00-141.00	0.05-0.09	0.0-2.9	0.1-0.5	.10	.10	
	26-38	55-80	5-25	10-30	1.45-1.70	4.00-14.00	0.10-0.16	0.0-2.9	0.1-0.5	.28	.28	
	38-80	50-75	5-25	18-30	1.45-1.70	4.00-14.00	0.10-0.16	0.0-2.9	0.1-0.5	.28	.28	
SbD:												
Smithdale------------	0-3	75-87	5-20	2-10	1.40-1.50	42.00-141.00	0.14-0.16	0.0-2.9	0.5-2.0	.15	.15	5
	3-8	75-87	5-20	2-10	1.35-1.65	42.00-141.00	0.07-0.12	0.0-2.9	0.5-1.0	.15	.15	
	8-13	55-85	10-30	2-15	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.1-1.0	.28	.28	
	13-42	40-65	15-45	18-33	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.1-0.5	.28	.28	
	42-80	40-80	5-35	12-27	1.40-1.55	4.00-14.00	0.14-0.16	0.0-2.9	0.1-0.5	.24	.24	
Boykin---------------	0-5	72-88	5-25	1-10	1.40-1.60	42.00-141.00	0.05-0.09	0.0-2.9	0.5-1.0	.10	.10	5
	5-26	72-95	5-25	1-10	1.40-1.60	42.00-141.00	0.05-0.09	0.0-2.9	0.1-0.5	.10	.10	
	26-38	55-80	5-25	10-30	1.45-1.70	4.00-14.00	0.10-0.16	0.0-2.9	0.1-0.5	.28	.28	
	38-80	50-75	5-25	18-30	1.45-1.70	4.00-14.00	0.10-0.16	0.0-2.9	0.1-0.5	.28	.28	
SsF:												
Smithdale------------	0-2	55-80	8-30	5-15	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.5-2.0	.24	.24	5
	2-7	60-84	8-25	4-15	1.35-1.65	14.00-42.00	0.07-0.12	0.0-2.9	0.1-1.0	.24	.24	
	7-35	40-65	15-40	18-33	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.1-1.0	.28	.28	
	35-63	40-70	8-35	10-25	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.1-0.5	.28	.28	
	63-80	45-85	5-35	5-18	1.40-1.55	14.00-42.00	0.22-0.40	0.0-2.9	0.1-0.5	.24	.24	
Saffell--------------	0-7	55-72	10-30	5-15	1.35-1.60	14.00-42.00	0.05-0.13	0.0-2.9	1.0-2.0	.20	.24	5
	7-55	50-75	10-30	12-30	1.40-1.65	4.00-42.00	0.06-0.11	0.0-2.9	0.1-0.8	.24	.32	
	55-80	55-85	5-25	5-15	1.40-1.60	14.00-42.00	0.04-0.11	0.0-2.9	0.1-0.5	.15	.20	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors		
										Kw	Kf	T
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
ToD:												
Toxey----------------	0-3	5-20	45-60	27-39	1.10-1.40	1.40-4.00	0.15-0.19	6.0-8.9	1.0-3.0	.32	.32	4
	3-7	7-35	20-50	40-55	1.00-1.40	0.01-0.42	0.14-0.18	6.0-8.9	0.5-2.0	.32	.32	
	7-27	7-40	20-55	40-65	1.00-1.40	0.01-0.42	0.12-0.16	6.0-8.9	0.5-1.0	.37	.37	
	27-31	5-40	20-55	27-50	1.00-1.40	0.01-0.42	0.08-0.12	3.0-5.9	0.1-0.5	.28	.28	
	31-80	5-40	25-55	27-50	1.00-1.40	0.01-0.42	0.08-0.12	3.0-5.9	0.1-0.5	.28	.28	
Lorman---------------	0-5	55-75	12-30	10-17	1.30-1.65	14.00-42.00	0.13-0.15	0.0-2.9	0.5-2.0	.24	.24	5
	5-9	45-75	15-35	10-17	1.30-1.65	14.00-42.00	0.13-0.16	0.0-2.9	0.5-1.0	.24	.24	
	9-18	10-35	20-50	40-55	1.20-1.50	0.01-0.42	0.16-0.20	9.0-25.0	0.1-1.0	.32	.32	
	18-60	10-35	20-50	40-55	1.20-1.50	0.01-0.42	0.16-0.20	9.0-25.0	0.1-0.5	.32	.32	
	60-80	5-35	20-50	20-55	1.25-1.65	0.01-1.40	0.12-0.18	3.0-9.0	0.1-0.5	.32	.32	
UdC:												
Udorthents-----------	0-80	---	---	5-35	1.35-1.65	14.00-42.00	0.05-0.18	0.0-2.9	0.5-3.0	.15	.15	5
UnA:												
Una------------------	0-5	15-40	18-35	40-45	1.40-1.60	0.42-1.40	0.11-0.13	6.0-8.9	1.0-5.0	.32	.32	5
	5-42	5-40	20-55	35-55	1.40-1.60	0.01-0.42	0.10-0.14	6.0-8.9	0.5-2.0	.32	.32	
	42-80	10-45	15-55	27-55	1.40-1.60	0.01-0.42	0.10-0.18	3.0-8.9	0.1-1.0	.32	.32	
Ur:												
Urban land-----------	0-6	---	---	---	---	---	---	---	---	---	---	--
UuB:												
Urbo-----------------	0-4	2-18	40-55	40-50	1.40-1.50	0.42-1.40	0.12-0.14	3.0-5.9	1.0-3.0	.32	.32	5
	4-13	2-40	25-55	35-55	1.40-1.50	0.42-1.40	0.10-0.18	3.0-5.9	0.5-2.0	.28	.28	
	13-68	2-30	30-55	40-55	1.45-1.55	0.01-0.42	0.10-0.14	3.0-5.9	0.5-1.0	.28	.28	
	68-80	8-55	18-55	25-50	1.45-1.55	1.40-4.00	0.10-0.16	3.0-5.9	0.1-1.0	.37	.37	
Mooreville-----------	0-5	20-45	20-45	27-39	1.40-1.50	4.00-14.00	0.14-0.20	3.0-5.9	0.5-2.0	.37	.37	5
	5-69	10-60	20-60	18-39	1.40-1.60	4.00-14.00	0.14-0.18	3.0-5.9	0.5-1.0	.32	.32	
	69-80	10-70	10-60	10-39	1.40-1.60	4.00-42.00	0.14-0.18	0.0-5.9	0.1-1.0	.24	.24	
Una------------------	0-5	15-40	18-35	40-45	1.40-1.60	0.42-1.40	0.11-0.13	6.0-8.9	1.0-5.0	.32	.32	5
	5-42	5-40	20-55	35-55	1.40-1.60	0.01-0.42	0.10-0.14	6.0-8.9	0.5-2.0	.32	.32	
	42-80	10-45	15-55	27-55	1.40-1.60	0.01-0.42	0.10-0.18	3.0-8.9	0.1-1.0	.32	.32	
WaB:												
Wadley---------------	0-10	75-87	6-18	4-10	1.35-1.65	42.00-141.00	0.08-0.12	0.0-2.9	0.5-1.0	.10	.10	5
	10-55	75-92	4-15	2-10	1.35-1.65	42.00-141.00	0.07-0.11	0.0-2.9	0.1-0.5	.10	.10	
	55-80	55-75	10-30	13-35	1.55-1.65	4.00-14.00	0.13-0.17	0.0-2.9	0.1-0.5	.20	.20	

Table 17.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors Kw	Kf	T
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*µm/sec*	*In/in*	*Pct*	*Pct*			
WsF:												
Wadley---------------	0-10	75-85	6-18	4-12	1.35-1.65	42.00-141.00	0.08-0.12	0.0-2.9	0.5-1.0	.10	.10	5
	10-55	75-92	4-15	2-10	1.35-1.65	42.00-141.00	0.07-0.11	0.0-2.9	0.1-0.5	.10	.10	
	55-80	55-75	10-30	13-35	1.55-1.65	4.00-14.00	0.13-0.17	0.0-2.9	0.1-0.5	.20	.20	
Smithdale------------	0-3	75-87	5-20	2-10	1.40-1.50	42.00-141.00	0.14-0.16	0.0-2.9	0.5-2.0	.15	.15	5
	3-8	75-87	5-20	2-10	1.35-1.65	42.00-141.00	0.07-0.12	0.0-2.9	0.1-1.0	.15	.15	
	8-13	55-85	10-30	2-15	1.40-1.50	14.00-42.00	0.14-0.16	0.0-2.9	0.1-1.0	.28	.28	
	13-42	40-65	15-45	18-33	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.1-0.5	.28	.28	
	42-80	40-80	5-35	12-27	1.40-1.55	4.00-42.00	0.14-0.16	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	Sodium adsorp- tion ratio
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*	
ArC:						
Arundel--------------	0-5	---	6.3-14	3.6-5.0	0	0
	5-32	---	16-37	3.6-4.4	0	0
	32-39	---	11-35	3.6-5.0	0	0
	39-80	---	---	---	---	---
Cantuche-------------	0-4	---	2.7-6.4	3.6-5.5	0	0
	4-10	---	2.7-6.4	3.6-5.5	0	0
	10-80	---	---	---	---	---
ArF:						
Arundel--------------	0-5	---	6.3-14	3.6-5.0	0	0
	5-32	---	16-37	3.6-4.4	0	0
	32-39	---	11-35	3.6-5.0	0	0
	39-80	---	---	---	---	---
Cantuche-------------	0-4	---	2.7-6.4	3.6-5.5	0	0
	4-10	---	2.7-6.4	3.6-5.5	0	0
	10-80	---	---	---	---	---
ArG:						
Arundel--------------	0-5	---	6.3-14	3.6-5.0	0	0
	5-32	---	16-37	3.6-4.4	0	0
	32-39	---	11-35	3.6-5.0	0	0
	39-80	---	---	---	---	---
Cantuche-------------	0-4	---	2.7-6.4	3.6-5.5	0	0
	4-10	---	2.7-6.4	3.6-5.5	0	0
	10-80	---	---	---	---	---
BaB:						
Bama-----------------	0-7	---	1.1-2.2	4.5-5.5	0	0
	7-24	---	2.5-3.8	4.5-5.5	0	0
	24-87	---	2.5-3.8	4.5-5.5	0	0
BoB:						
Brantley-------------	0-3	---	1.9-5.3	4.5-5.5	0	0
	3-11	---	2.1-6.8	4.5-5.5	0	0
	11-43	---	10-35	4.5-5.5	0	0
	43-56	---	8.3-15	4.5-5.5	0	0
	56-80	---	5.0-25	4.5-5.5	0	0
Okeelala-------------	0-3	---	1.2-2.9	4.5-5.5	0	0
	3-18	---	1.1-8.4	4.5-5.5	0	0
	18-33	---	3.4-7.2	4.5-5.5	0	0
	33-58	---	1.3-6.5	4.5-5.5	0	0
	58-80	---	0.3-3.8	4.5-5.5	0	0
BoD:						
Brantley-------------	0-3	---	1.9-5.3	4.5-5.5	0	0
	3-11	---	2.1-6.8	4.5-5.5	0	0
	11-43	---	10-35	4.5-5.5	0	0
	43-56	---	8.3-15	4.5-5.5	0	0
	56-80	---	5.0-25	4.5-5.5	0	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	Sodium adsorp-tion ratio
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*	
BoD:						
Okeelala-------------	0-3	---	1.2-2.9	4.5-5.5	0	0
	3-18	---	1.1-8.4	4.5-5.5	0	0
	18-33	---	3.4-7.2	4.5-5.5	0	0
	33-58	---	1.3-6.5	4.5-5.5	0	0
	58-80	---	0.3-3.8	4.5-5.5	0	0
BoG:						
Brantley-------------	0-3	---	1.9-5.3	4.5-5.5	0	0
	3-11	---	2.1-6.8	4.5-5.5	0	0
	11-43	---	10-35	4.5-5.5	0	0
	43-56	---	8.3-15	4.5-5.5	0	0
	56-80	---	5.0-25	4.5-5.5	0	0
Okeelala-------------	0-3	---	1.2-2.9	4.5-5.5	0	0
	3-18	---	1.1-8.4	4.5-5.5	0	0
	18-33	---	3.4-7.2	4.5-5.5	0	0
	33-58	---	1.3-6.5	4.5-5.5	0	0
	58-80	---	0.3-3.8	4.5-5.5	0	0
CaA:						
Cahaba---------------	0-8	---	1.2-3.3	4.5-6.0	0	0
	8-55	---	3.3-7.2	4.5-6.0	0	0
	55-72	---	1.1-3.6	4.5-6.0	0	0
ChA:						
Chrysler-------------	0-7	---	1.7-3.9	4.5-5.5	0	0
	7-17	---	5.1-13	4.5-5.5	0	0
	17-80	---	6.9-13	4.5-5.5	0	0
DaA:						
Daleville------------	0-2	---	1.9-8.3	4.5-5.5	0	0
	2-14	---	2.5-13	4.5-5.5	0	0
	14-36	---	5.4-12	4.5-5.5	0	0
	36-84	---	8.6-16	4.5-5.5	0	0
Quitman--------------	0-5	---	0.8-2.7	4.5-5.5	0	0
	5-11	---	1.4-9.6	4.5-5.5	0	0
	11-22	---	3.4-7.2	4.5-5.5	0	0
	22-80	---	3.4-7.2	4.5-5.5	0	0
EsA:						
Escambia-------------	0-7	---	0.8-2.7	4.5-5.5	0	0
	7-11	---	1.4-3.5	4.5-5.5	0	0
	11-33	---	1.4-3.6	4.5-5.5	0	0
	33-80	---	1.4-7.2	4.5-5.5	0	0
FaE:						
Flomaton-------------	0-7	---	0.1-2.8	4.5-5.5	0	0
	7-14	---	0.3-3.7	4.5-5.5	0	0
	14-84	---	0.3-2.8	4.5-5.5	0	0
	84-100	---	0.1-1.8	4.5-5.5	0	0
Smithdale------------	0-3	---	0.3-1.2	4.5-5.5	0	0
	3-8	---	2.0-6.0	4.5-6.0	0	0
	8-13	---	0.4-1.8	4.5-5.5	0	0
	13-42	---	2.2-3.6	4.5-5.5	0	0
	42-80	---	1.3-2.9	4.5-5.5	0	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	Sodium adsorp-tion ratio
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*	
FaE:						
Wadley---------------	0-10	---	2.0-6.0	4.5-5.5	0	0
	10-55	---	2.0-6.0	4.5-5.5	0	0
	55-80	---	5.0-20	4.5-5.5	0	0
FlA:						
Fluvaquents----------	0-6	---	1.6-15	3.6-5.5	0	0
	6-80	---	2.9-13	3.6-5.5	0	0
HaB:						
Halso----------------	0-2	---	2.6-12	3.6-5.5	0	0
	2-4	---	11-21	3.6-5.5	0	0
	4-40	---	16-42	3.6-5.5	0	0
	40-52	---	11-33	3.6-5.5	0	0
	52-80	---	---	---	---	---
HaD2:						
Halso----------------	0-2	---	2.6-12	3.6-5.5	0	0
	2-4	---	11-21	3.6-5.5	0	0
	4-40	---	16-42	3.6-5.5	0	0
	40-52	---	11-33	3.6-5.5	0	0
	52-80	---	---	---	---	---
HtA:						
Harleston------------	0-6	---	0.3-0.8	4.5-5.5	0	0
	6-13	---	0.8-6.6	4.5-5.5	0	0
	13-27	---	1.4-3.6	4.5-5.5	0	0
	27-65	---	1.4-5.5	4.5-5.5	0	0
IBA:						
Iuka-----------------	0-3	---	1.4-4.6	4.5-5.5	0	0
	3-31	---	3.2-5.7	4.5-5.5	0	0
	31-80	---	1.6-7.3	4.5-5.5	0	0
Bibb-----------------	0-7	---	4.0-7.0	3.6-5.5	0	0
	7-72	---	4.0-10	3.6-5.5	0	0
Mantachie------------	0-9	---	2.7-5.2	4.5-5.5	0	0
	9-20	---	6.2-11	4.5-5.5	0	0
	20-39	---	6.9-12	4.5-5.5	0	0
	39-80	---	1.3-9.0	4.5-5.5	0	0
IgA:						
Izagora--------------	0-4	---	1.4-3.5	4.5-5.5	0	0
	4-7	---	2.7-14	4.5-5.5	0	0
	7-35	---	3.4-6.1	4.5-5.5	0	0
	35-80	---	5.9-12	4.5-5.5	0	0
IjB:						
Izagora--------------	0-4	---	1.4-3.5	4.5-5.5	0	0
	4-7	---	2.7-14	4.5-5.5	0	0
	7-35	---	3.4-6.1	4.5-5.5	0	0
	35-80	---	5.9-12	4.5-5.5	0	0
Jedburg--------------	0-4	---	2.0-4.0	4.5-5.5	0	0
	4-10	---	2.2-4.3	4.5-5.5	0	0
	10-24	---	4.0-6.0	4.5-5.5	0	0
	24-42	---	3.8-7.2	4.5-5.5	0	0
	42-80	---	4.0-8.0	4.5-5.5	0	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	Sodium adsorp-tion ratio
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*	
JdA:						
Jedburg--------------	0-4	---	2.0-4.0	4.5-5.5	0	0
	4-10	---	2.2-4.3	4.5-5.5	0	0
	10-24	---	4.0-6.0	4.5-5.5	0	0
	24-42	---	3.8-7.2	4.5-5.5	0	0
	42-80	---	4.0-8.0	4.5-5.5	0	0
LaA:						
Latonia--------------	0-8	---	0.5-2.3	4.5-5.5	0	0
	8-38	---	1.8-3.1	4.5-5.5	0	0
	38-80	---	0.5-2.0	4.5-5.5	0	0
LeA:						
Lenoir---------------	0-2	---	3.0-8.0	3.6-5.5	0	0
	2-6	---	1.4-5.3	3.6-5.5	0	0
	6-12	---	7.0-13	3.6-5.5	0	0
	12-80	---	7.0-13	3.6-5.5	0	0
LmD:						
Lorman---------------	0-5	---	5.3-11	4.5-5.5	0	0
	5-9	---	2.6-9.4	4.5-5.5	0	0
	9-18	---	20-33	4.5-5.5	0	0
	18-60	12-27	---	4.5-8.0	0-5	0
	60-80	6.6-27	---	4.5-8.4	15-60	0
LoF:						
Lorman---------------	0-5	---	5.3-11	4.5-5.5	0	0
	5-9	---	2.6-9.4	4.5-5.5	0	0
	9-18	---	20-33	4.5-5.5	0	0
	18-60	12-27	---	4.5-8.0	0-5	0
	60-80	6.6-27	---	4.5-8.4	15-60	0
Toxey----------------	0-3	25-50	---	4.5-5.5	0	0
	3-7	35-50	---	4.5-6.0	0	0
	7-27	30-60	---	6.1-8.4	2-15	0
	27-31	30-60	---	7.4-8.4	2-15	0
	31-80	4.8-20	---	7.4-8.4	2-15	0
Okeelala-------------	0-3	---	1.2-2.9	4.5-5.5	0	0
	3-18	---	1.1-8.4	4.5-5.5	0	0
	18-33	---	3.4-7.2	4.5-5.5	0	0
	33-58	---	1.3-6.5	4.5-5.5	0	0
	58-80	---	0.3-3.8	4.5-5.5	0	0
LsA:						
Lucedale-------------	0-7	0.2-2.0	---	5.1-6.5	0	0
	7-80	---	2.1-3.9	4.5-5.5	0	0
LuC:						
Lucedale-------------	0-7	0.2-2.0	---	5.1-6.5	0	0
	7-80	---	2.1-3.9	4.5-5.5	0	0
Bama-----------------	0-7	---	1.1-2.2	4.5-5.5	0	0
	7-24	---	2.5-3.8	4.5-5.5	0	0
	24-87	---	2.5-3.8	4.5-5.5	0	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	Sodium adsorp- tion ratio
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*	
LvB:						
Luverne--------------	0-6	---	1.3-3.7	4.5-5.5	0	0
	6-23	---	7.2-9.9	4.5-5.5	0	0
	23-34	---	4.2-8.0	4.5-5.5	0	0
	34-80	---	1.6-8.4	4.5-5.5	0	0
LvD:						
Luverne--------------	0-6	---	1.3-3.7	4.5-5.5	0	0
	6-23	---	7.2-9.9	4.5-5.5	0	0
	23-34	---	4.2-8.0	4.5-5.5	0	0
	34-80	---	1.6-8.4	4.5-5.5	0	0
LvF:						
Luverne--------------	0-6	---	1.3-3.7	4.5-5.5	0	0
	6-23	---	7.2-9.9	4.5-5.5	0	0
	23-34	---	4.2-8.0	4.5-5.5	0	0
	34-80	---	1.6-8.4	4.5-5.5	0	0
LxD:						
Luverne--------------	0-6	---	1.3-3.7	4.5-5.5	0	0
	6-23	---	7.2-9.9	4.5-5.5	0	0
	23-34	---	4.2-8.0	4.5-5.5	0	0
	34-80	---	1.6-8.4	4.5-5.5	0	0
Urban land-----------	0-6	---	---	---	---	---
MaB:						
Malbis---------------	0-4	---	1.1-2.7	4.5-5.5	0	0
	4-9	---	2.3-9.8	4.5-5.5	0	0
	9-38	---	1.8-4.4	4.5-5.5	0	0
	38-80	---	1.9-4.6	4.5-5.5	0	0
MbF:						
Maubila--------------	0-5	---	1.0-5.0	3.6-5.5	0	0
	5-8	---	1.2-7.7	3.6-5.5	0	0
	8-15	---	4.3-8.0	3.6-5.5	0	0
	15-55	---	4.8-9.8	3.6-5.5	0	0
	55-80	---	4.8-8.8	3.6-5.5	0	0
Wadley---------------	0-10	---	2.0-6.0	4.5-5.5	0	0
	10-55	---	2.0-6.0	4.5-5.5	0	0
	55-80	---	5.0-20	4.5-5.5	0	0
Smithdale------------	0-2	---	0.7-1.8	4.5-5.5	0	0
	2-7	---	2.0-6.0	4.5-5.5	0	0
	7-35	---	2.2-3.5	4.5-5.5	0	0
	35-63	---	1.2-2.7	4.5-5.5	0	0
	63-80	---	0.7-2.1	4.5-5.5	0	0
MdA:						
McCrory--------------	0-4	---	1.8-5.9	3.5-5.5	0	0
	4-14	---	2.9-19	4.5-6.5	0	0
	14-23	5.4-16	---	5.1-7.8	0	2-15
	23-58	5.0-20	---	6.6-9.0	0	13-20
	58-72	5.0-15	---	7.4-10.0	0	13-20
Deerford-------------	0-3	---	3.0-15	3.5-5.5	0	0
	3-10	---	1.4-11	4.5-5.5	0	0
	10-35	12-27	---	5.1-8.4	0	2-15
	35-49	5.0-25	---	6.1-8.4	0	13-20
	49-80	5.0-25	---	6.6-8.4	0	13-20

Table 18.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon-ate	Sodium adsorp-tion ratio
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*	
MyA:						
Myatt----------------	0-3	---	1.5-6.4	4.5-5.5	0	0
	3-14	---	3.9-9.1	4.5-5.5	0	0
	14-55	---	5.3-13	3.6-5.5	0	0
	55-80	---	1.8-11	3.6-5.5	0	0
OcA:						
Ochlockonee----------	0-5	---	0.6-5.7	4.5-5.5	0	0
	5-34	---	2.1-6.2	4.5-5.5	0	0
	34-40	---	0.7-5.7	4.5-5.5	0	0
	40-80	---	0.7-6.2	4.5-5.5	0	0
OdB:						
Ocilla---------------	0-3	---	1.0-3.0	4.5-5.5	0	0
	3-31	---	2.0-4.0	3.6-5.5	0	0
	31-80	---	3.0-7.0	4.5-5.5	0	0
Pelham---------------	0-7	---	1.0-4.0	3.6-5.5	0	0
	7-32	---	2.0-4.0	3.6-5.5	0	0
	32-80	---	2.0-4.0	3.6-5.5	0	0
OkF:						
Okeelala-------------	0-3	---	1.2-2.9	4.5-5.5	0	0
	3-18	---	1.1-8.4	4.5-5.5	0	0
	18-33	---	3.4-7.2	4.5-5.5	0	0
	33-58	---	1.3-6.5	4.5-5.5	0	0
	58-80	---	0.3-3.8	4.5-5.5	0	0
Brantley-------------	0-3	---	1.9-5.3	4.5-5.5	0	0
	3-11	---	2.1-6.8	4.5-5.5	0	0
	11-43	---	10-35	4.5-5.5	0	0
	43-56	---	8.3-15	4.5-5.5	0	0
	56-80	---	5.0-25	4.5-5.5	0	0
OmC:						
Olla-----------------	0-4	---	2.0-8.0	3.5-5.5	0	0
	4-13	---	2.0-10	3.5-5.5	0	0
	13-22	---	2.0-10	3.5-5.5	0	0
	22-37	---	2.0-8.0	3.5-5.5	0	0
	37-80	---	2.0-8.8	3.6-5.5	0	0
Maubila--------------	0-5	---	1.0-5.0	3.6-5.5	0	0
	5-8	---	1.2-7.7	3.6-5.5	0	0
	8-15	---	4.3-8.0	3.6-5.5	0	0
	15-55	---	4.8-9.8	3.6-5.5	0	0
	55-80	---	4.8-8.8	3.6-5.5	0	0
Pg:						
Pits-----------------	0-60	---	---	---	---	---
PrG:						
Prim-----------------	0-7	18-38	---	7.4-8.4	25-60	0
	7-15	11-24	---	7.4-8.4	45-70	0
	15-80	---	---	---	---	---
Eutrudepts-----------	0-4	18-35	---	4.5-8.0	0-5	0
	4-30	15-42	---	5.1-8.4	15-60	0
	30-80	---	---	---	---	---

Table 18.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate	Sodium adsorp- tion ratio
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*	
PwC:						
Prim-----------------	0-7	18-38	---	7.4-8.4	25-60	0
	7-15	11-24	---	7.4-8.4	45-70	0
	15-80	---	---	---	---	---
Suggsville-----------	0-4	---	20-36	4.5-5.5	0	0
	4-11	---	23-47	3.5-5.5	0-5	0
	11-42	---	23-60	3.5-6.5	0-5	0
	42-80	---	---	---	---	---
Watsonia-------------	0-4	32-62	---	4.5-6.5	0-5	0
	4-15	20-58	---	4.5-6.5	0-5	0
	15-17	20-42	---	6.1-8.4	15-60	0
	17-80	---	---	---	---	---
PwF:						
Prim-----------------	0-7	18-38	---	7.4-8.4	25-60	0
	7-15	11-24	---	7.4-8.4	45-70	0
	15-80	---	---	---	---	---
Suggsville-----------	0-4	---	20-36	4.5-5.5	0	0
	4-11	---	23-47	3.5-5.5	0-5	0
	11-42	---	23-60	3.5-6.5	0-5	0
	42-80	---	---	---	---	---
Watsonia-------------	0-4	32-62	---	4.5-6.5	0-5	0
	4-15	20-58	---	4.5-6.5	0-5	0
	15-17	20-42	---	6.1-8.4	15-60	0
	17-80	---	---	---	---	---
RaD:						
Rayburn--------------	0-5	---	1.0-7.0	3.5-5.5	0	0
	5-8	---	5.0-18	3.5-5.5	0	0
	8-20	---	25-35	3.5-5.5	0	0
	20-52	---	16-36	3.5-5.5	0	0
	52-59	---	11-33	3.6-5.5	0	0
	59-80	---	---	---	---	---
RvA:						
Riverview------------	0-12	---	0.9-5.7	4.5-6.0	0	0
	12-44	---	4.0-10	4.5-6.0	0	0
	44-80	---	2.0-6.0	4.5-6.0	0	0
SaA:						
Savannah-------------	0-5	---	0.5-2.8	4.5-5.5	0	0
	5-12	---	1.2-11	4.5-5.5	0	0
	12-26	---	3.8-6.3	4.5-5.5	0	0
	26-80	---	3.8-6.3	4.5-5.5	0	0
SbB:						
Smithdale------------	0-3	---	0.3-1.2	4.5-5.5	0	0
	3-8	---	2.0-6.0	4.5-6.0	0	0
	8-13	---	0.4-1.8	4.5-5.5	0	0
	13-42	---	2.2-3.6	4.5-5.5	0	0
	42-80	---	1.3-2.9	4.5-5.5	0	0
Boykin---------------	0-5	---	0.2-2.9	4.5-6.5	0	0
	5-26	---	0.2-5.5	4.5-6.5	0	0
	26-38	---	3.5-10	4.5-6.0	0	0
	38-80	---	10-20	4.5-6.0	0	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	Sodium adsorp-tion ratio
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*	
SbD:						
Smithdale------------	0-3	---	0.3-1.2	4.5-5.5	0	0
	3-8	---	2.0-6.0	4.5-6.0	0	0
	8-13	---	0.4-1.8	4.5-5.5	0	0
	13-42	---	2.2-3.6	4.5-5.5	0	0
	42-80	---	1.3-2.9	4.5-5.5	0	0
Boykin---------------	0-5	---	0.2-2.9	4.5-6.5	0	0
	5-26	---	0.2-5.5	4.5-6.5	0	0
	26-38	---	3.5-10	4.5-6.0	0	0
	38-80	---	10-20	4.5-6.0	0	0
SsF:						
Smithdale------------	0-2	---	0.7-1.8	4.5-5.5	0	0
	2-7	---	2.0-6.0	4.5-5.5	0	0
	7-35	---	2.2-3.5	4.5-5.5	0	0
	35-63	---	1.2-2.7	4.5-5.5	0	0
	63-80	---	0.7-2.1	4.5-5.5	0	0
Saffell--------------	0-7	---	5.0-15	4.5-5.5	0	0
	7-55	---	5.0-15	4.5-5.5	0	0
	55-80	---	0.9-3.5	4.5-5.5	0	0
ToD:						
Toxey----------------	0-3	25-50	---	4.5-5.5	0	0
	3-7	35-50	---	4.5-6.0	0	0
	7-27	30-60	---	6.1-8.4	2-15	0
	27-31	30-60	---	7.4-8.4	2-15	0
	31-80	4.8-20	---	7.4-8.4	2-15	0
Lorman---------------	0-5	---	5.3-11	4.5-5.5	0	0
	5-9	---	2.6-9.4	4.5-5.5	0	0
	9-18	---	20-33	4.5-5.5	0	0
	18-60	12-27	---	4.5-8.0	0-5	0
	60-80	6.6-27	---	4.5-8.4	15-60	0
UdC:						
Udorthents-----------	0-80	---	5.0-20	3.6-5.5	0	0
UnA:						
Una------------------	0-5	---	12-15	4.5-5.5	0	0
	5-42	---	11-22	4.5-5.5	0	0
	42-80	---	8.4-22	4.5-7.3	0	0
Ur:						
Urban land-----------	0-6	---	---	---	---	---
UuB:						
Urbo-----------------	0-4	---	12-17	4.5-5.5	0	0
	4-13	---	11-21	4.5-5.5	0	0
	13-68	---	14-22	4.5-5.5	0	0
	68-80	---	7.9-20	4.5-5.5	0	0
Mooreville-----------	0-5	---	7.8-14	4.5-5.5	0	0
	5-69	---	5.3-15	4.5-5.5	0	0
	69-80	---	2.7-17	4.5-5.5	0	0
Una------------------	0-5	---	12-15	4.5-5.5	0	0
	5-42	---	11-22	4.5-5.5	0	0
	42-80	---	8.4-22	4.5-7.3	0	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	Sodium adsorp-tion ratio
	In	*meq/100 g*	*meq/100 g*	*pH*	*Pct*	
WaB:						
Wadley---------------	0-10	---	2.0-6.0	4.5-5.5	0	0
	10-55	---	2.0-6.0	4.5-5.5	0	0
	55-80	---	5.0-20	4.5-5.5	0	0
WsF:						
Wadley---------------	0-10	---	2.0-6.0	4.5-5.5	0	0
	10-55	---	2.0-6.0	4.5-5.5	0	0
	55-80	---	5.0-20	4.5-5.5	0	0
Smithdale------------	0-3	---	0.3-1.2	4.5-5.5	0	0
	3-8	---	2.0-6.0	4.5-6.0	0	0
	8-13	---	0.4-1.8	4.5-5.5	0	0
	13-42	---	2.2-3.6	4.5-5.5	0	0
	42-80	---	1.3-2.9	4.5-5.5	0	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
Cantuche--------	D	Jan-Dec	>6.0	---	---	---	None	---	None
ArF:									
Arundel---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Cantuche--------	D	Jan-Dec	>6.0	---	---	---	None	---	None
ArG:									
Arundel---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Cantuche--------	D	Jan-Dec	>6.0	---	---	---	None	---	None
BaB:									
Bama------------	B	Jan-Dec	>6.0	---	---	---	None	---	None
BoB:									
Brantley--------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Okeelala--------	B	Jan-Dec	>6.0	---	---	---	None	---	None
BoD:									
Brantley--------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Okeelala--------	B	Jan-Dec	>6.0	---	---	---	None	---	None
BoG:									
Brantley--------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Okeelala--------	B	Jan-Dec	>6.0	---	---	---	None	---	None
CaA:									
Cahaba----------	B	Jan-Apr	>6.0	---	---	---	None	Very brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	>6.0	---	---	---	None	Very brief	Occasional
ChA:									
Chrysler--------	C	Jan-Apr	1.5-2.5	Apparent	---	---	None	Very brief	Rare
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	1.5-2.5	Apparent	---	---	None	Very brief	Rare
DaA:									
Daleville-------	D	Jan-Apr	0.0-1.0	Apparent	---	---	None	---	None
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	0.0-1.0	Apparent	---	---	None	---	None
Quitman---------	C	Jan-Apr	0.5-1.5	Apparent	---	---	None	---	None
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	0.5-1.5	Apparent	---	---	None	---	None
EsA:									
Escambia--------	C	Jan-Apr	1.0-2.0	Perched	---	---	None	---	None
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	1.0-2.0	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*				
FaE:									
Flomaton--------	A	Jan-Dec	>6.0	---	---	---	None	---	None
Smithdale-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Wadley----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
FlA:									
Fluvaquents-----	D	Jan-May	0	Apparent	0.0-2.0	Very long	Frequent	Brief	Frequent
		Jun-Nov	0	Apparent	0.0-2.0	Very long	Frequent	---	None
		Dec	0	Apparent	0.0-2.0	Very long	Frequent	Brief	Frequent
HaB:									
Halso-----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
HaD2:									
Halso-----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
HtA:									
Harleston-------	C	Jan-Apr	2.0-3.0	Apparent	---	---	None	---	None
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	2.0-3.0	Apparent	---	---	None	---	None
IBA:									
Iuka------------	C	Jan-Apr	1.5-3.0	Apparent	---	---	None	Brief	Frequent
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	1.5-3.0	Apparent	---	---	None	Brief	Frequent
Bibb------------	D	Jan-Apr	0.0-1.0	Apparent	---	---	None	Brief	Frequent
		May	0.5-1.0	Apparent	---	---	None	---	None
		Jun-Nov	>6.0	---	---	---	None	---	None
		Dec	0.0-1.0	Apparent	---	---	None	Brief	Frequent
Mantachie-------	C	Jan-Apr	1.0-1.5	Apparent	---	---	None	Brief	Frequent
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	1.0-1.5	Apparent	---	---	None	Brief	Frequent
IgA:									
Izagora---------	C	Jan-Apr	2.0-3.0	Perched	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	2.0-3.0	Perched	---	---	None	Brief	Occasional
IjB:									
Izagora---------	C	Jan-Apr	2.0-3.0	Perched	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	2.0-3.0	Perched	---	---	None	Brief	Occasional
Jedburg---------	C	Jan-Apr	0.5-1.5	Apparent	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	0.5-1.5	Apparent	---	---	None	Brief	Occasional
JdA:									
Jedburg---------	C	Jan-Apr	0.5-1.5	Apparent	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	0.5-1.5	Apparent	---	---	None	Brief	Occasional
LaA:									
Latonia---------	B	Jan-Apr	>6.0	---	---	---	None	Very brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	>6.0	---	---	---	None	Very brief	Occasional

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*				
LeA:									
Lenoir----------	D	Jan-Apr	1.0-2.5	Apparent	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	1.0-2.5	Apparent	---	---	None	Brief	Occasional
LmD:									
Lorman----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
LoF:									
Lorman----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Toxey-----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Okeelala--------	B	Jan-Dec	>6.0	---	---	---	None	---	None
LsA:									
Lucedale--------	B	Jan-Dec	>6.0	---	---	---	None	---	None
LuC:									
Lucedale--------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Bama------------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
LvB:									
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
LvD:									
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
LvF:									
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
LxD:									
Luverne---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
MaB:									
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
MbF:									
Maubila---------	C	Jan-Mar	2.0-3.5	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	2.0-3.5	Perched	---	---	None	---	None
Wadley----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
Smithdale-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
MdA:									
McCrory---------	D	Jan-Apr	0.5-1.0	Perched	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	0.5-1.0	Perched	---	---	None	Brief	Occasional
Deerford--------	D	Jan-Apr	0.5-1.5	Perched	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	0.5-1.5	Perched	---	---	None	Brief	Occasional

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*				
MyA:									
Myatt-----------	D	Jan-Apr	0.0-1.0	Apparent	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	0.0-1.0	Apparent	---	---	None	Brief	Occasional
OcA:									
Ochlockonee-----	B	Jan-Apr	3.0-6.0	Apparent	---	---	None	Very brief	Frequent
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	3.0-6.0	Apparent	---	---	None	Very brief	Frequent
OdB:									
Ocilla----------	C	Jan-Apr	1.0-2.0	Perched	---	---	None	---	None
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	1.0-2.0	Perched	---	---	None	---	None
Pelham----------	D	Jan-Apr	0.0-1.0	Perched	---	---	None	---	None
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	0.0-1.0	Perched	---	---	None	---	None
OkF:									
Okeelala--------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Brantley--------	C	Jan-Dec	>6.0	---	---	---	None	---	None
OmC:									
Olla------------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Maubila---------	C	Jan-Mar	2.0-3.5	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	2.0-3.5	Perched	---	---	None	---	None
Pg:									
Pits------------	---	Jan-Dec	>6.0	---	---	---	None	---	None
PrG:									
Prim------------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Eutrudepts------	D	Jan-Dec	>6.0	---	---	---	None	---	None
PwC:									
Prim------------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Suggsville------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Watsonia--------	D	Jan-Dec	>6.0	---	---	---	None	---	None
PwF:									
Prim------------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Suggsville------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Watsonia--------	D	Jan-Dec	>6.0	---	---	---	None	---	None
RaD:									
Rayburn---------	D	Jan-Mar	2.5-4.5	Perched	---	---	None	---	None
		Apr-Nov	>6.0	---	---	---	None	---	None
		Dec	2.5-4.5	Perched	---	---	None	---	None
RvA:									
Riverview-------	B	Jan-Apr	3.0-5.0	Apparent	---	---	None	Brief	Occasional
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	3.0-5.0	Apparent	---	---	None	Brief	Occasional

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*				
SaA:									
Savannah--------	C	Jan-Apr	1.5-3.0	Perched	---	---	None	---	None
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	1.5-3.0	Perched	---	---	None	---	None
SbB:									
Smithdale-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Boykin----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
SbD:									
Smithdale-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Boykin----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
SsF:									
Smithdale-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Saffell---------	B	Jan-Dec	>6.0	---	---	---	None	---	None
ToD:									
Toxey-----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Lorman----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
UdC:									
Udorthents------	C	Jan-Apr	4.0-6.0	Apparent	---	---	None	Brief	Occasional
		May-Nov	---	---	---	---	None	---	None
		Dec	4.0-6.0	Apparent	---	---	None	Brief	Occasional
UnA:									
Una-------------	D	Jan-Apr	0	Apparent	0.0-2.0	Long	Frequent	Long	Frequent
		May-Nov	0	Apparent	0.0-2.0	Long	Frequent	---	None
		Dec	0	Apparent	0.0-2.0	Long	Frequent	Long	Frequent
Ur:									
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
UuB:									
Urbo------------	D	Jan-Apr	1.0-2.0	Apparent	---	---	None	Long	Frequent
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	1.0-2.0	Apparent	---	---	None	Long	Frequent
Mooreville------	B	Jan-Apr	1.5-3.0	Apparent	---	---	None	Long	Frequent
		May-Nov	>6.0	---	---	---	None	---	None
		Dec	1.5-3.0	Apparent	---	---	None	Long	Frequent
Una-------------	D	Jan-Jul	0	Apparent	0.0-2.0	Long	Frequent	Long	Frequent
		Aug-Nov	>6.0	---	---	---	None	Long	Frequent
		Dec	0	Apparent	0.0-2.0	Long	Frequent	Long	Frequent
WaB:									
Wadley----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
WsF:									
Wadley----------	A	Jan-Dec	>6.0	---	---	---	None	---	None
Smithdale-------	B	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	Bedrock (paralithic)	20-40	---	Strongly cemented	High	High
Cantuche	Bedrock (paralithic)	10-20	---	Strongly cemented	Low	Moderate
ArF:						
Arundel	Bedrock (paralithic)	20-40	---	Strongly cemented	High	High
Cantuche	Bedrock (paralithic)	10-20	---	Strongly cemented	Low	Moderate
ArG:						
Arundel	Bedrock (paralithic)	20-40	---	Strongly cemented	High	High
Cantuche	Bedrock (paralithic)	10-20	---	Strongly cemented	Low	Moderate
BaB:						
Bama	---	---	---	---	Low	Moderate
BoB:						
Brantley	---	---	---	---	High	High
Okeelala	---	---	---	---	Moderate	Moderate
BoD:						
Brantley	---	---	---	---	High	High
Okeelala	---	---	---	---	Moderate	Moderate
BoG:						
Brantley	---	---	---	---	High	High
Okeelala	---	---	---	---	Moderate	Moderate
CaA:						
Cahaba	---	---	---	---	Moderate	Moderate
ChA:						
Chrysler	---	---	---	---	High	High
DaA:						
Daleville	---	---	---	---	High	High
Quitman	---	---	---	---	High	Moderate
EsA:						
Escambia	---	---	---	---	Moderate	High
FaE:						
Flomaton	---	---	---	---	Low	Moderate
Smithdale	---	---	---	---	Low	Moderate
Wadley	---	---	---	---	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*			
FlA:						
Fluvaquents	---	---	---	---	High	High
HaB:						
Halso	Bedrock (paralithic)	40-60	---	Moderately cemented	High	High
HaD2:						
Halso	Bedrock (paralithic)	40-60	---	Moderately cemented	High	High
HtA:						
Harleston	---	---	---	---	Moderate	High
IBA:						
Iuka	---	---	---	---	Moderate	High
Bibb	---	---	---	---	High	Moderate
Mantachie	---	---	---	---	High	High
IgA:						
Izagora	---	---	---	---	Moderate	High
IjB:						
Izagora	---	---	---	---	Moderate	High
Jedburg	---	---	---	---	High	High
JdA:						
Jedburg	---	---	---	---	High	High
LaA:						
Latonia	---	---	---	---	Low	Moderate
LeA:						
Lenoir	---	---	---	---	High	High
LmD:						
Lorman	---	---	---	---	High	Moderate
LoF:						
Lorman	---	---	---	---	High	Moderate
Toxey	---	---	---	---	High	High
Okeelala	---	---	---	---	Moderate	Moderate
LsA:						
Lucedale	---	---	---	---	Moderate	Moderate
LuC:						
Lucedale	---	---	---	---	Moderate	Moderate
Bama	---	---	---	---	Low	Moderate
Urban land.						
LvB:						
Luverne	---	---	---	---	High	High
LvD:						
Luverne	---	---	---	---	High	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*			
LvF:						
Luverne	---	---	---	---	High	High
LxD:						
Luverne	---	---	---	---	High	High
Urban land.						
MaB:						
Malbis	---	---	---	---	Moderate	Moderate
MbF:						
Maubila	---	---	---	---	High	High
Wadley	---	---	---	---	Low	High
Smithdale	---	---	---	---	Low	Moderate
MdA:						
McCrory	---	---	---	---	High	Moderate
Deerford	---	---	---	---	High	Moderate
MyA:						
Myatt	---	---	---	---	High	High
OcA:						
Ochlockonee	---	---	---	---	Low	High
OdB:						
Ocilla	---	---	---	---	High	Moderate
Pelham	---	---	---	---	High	High
OkF:						
Okeelala	---	---	---	---	Moderate	Moderate
Brantley	---	---	---	---	High	High
OmC:						
Olla	---	---	---	---	Moderate	Moderate
Maubila	---	---	---	---	High	High
Pg:						
Pits.						
PrG:						
Prim	Bedrock (paralithic)	10-20	---	Strongly cemented	Moderate	Low
Eutrudepts	Bedrock (paralithic)	20-40	---	Strongly cemented	Moderate	Low
PwC:						
Prim	Bedrock (paralithic)	10-20	---	Strongly cemented	Moderate	Low
Suggsville	Bedrock (paralithic)	40-60	---	Strongly cemented	High	High
Watsonia	Bedrock (paralithic)	10-20	---	Strongly cemented	High	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*			
PwF:						
Prim	Bedrock (paralithic)	10-20	---	Strongly cemented	Moderate	Low
Suggsville	Bedrock (paralithic)	40-60	---	Strongly cemented	High	High
Watsonia	Bedrock (paralithic)	10-20	---	Strongly cemented	High	High
RaD:						
Rayburn	Bedrock (paralithic)	40-60	---	Strongly cemented	High	High
RvA:						
Riverview	---	---	---	---	Low	Moderate
SaA:						
Savannah	Fragipan	20-40	40-60	Noncemented	Moderate	High
SbB:						
Smithdale	---	---	---	---	Low	Moderate
Boykin	---	---	---	---	Moderate	High
SbD:						
Smithdale	---	---	---	---	Low	Moderate
Boykin	---	---	---	---	Moderate	High
SsF:						
Smithdale	---	---	---	---	Low	Moderate
Saffell	---	---	---	---	Low	Moderate
ToD:						
Toxey	---	---	---	---	High	High
Lorman	---	---	---	---	High	Moderate
UdC:						
Udorthents	---	---	---	---	High	High
UnA:						
Una	---	---	---	---	High	High
Ur:						
Urban land.						
UuB:						
Urbo	---	---	---	---	High	High
Mooreville	---	---	---	---	Moderate	High
Una	---	---	---	---	High	High
WaB:						
Wadley	---	---	---	---	Low	High
WsF:						
Wadley	---	---	---	---	Low	High
Smithdale	---	---	---	---	Low	Moderate

Table 21.--Physical Analyses of Selected Soils

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				
Cantuche: [1,3]	0-4	A1	49.3	38.6	12.1
(S77AL-025-19)	4-10	A2	48.2	41.1	10.7
	10-80	Cr	----	----	----
Harleston: [1,2]	0-6	Ap	82.3	14.7	3.0
(S87AL-025-1)	6-13	E	74.9	20.7	4.4
	13-27	Bt1	73.4	21.5	5.1
	27-46	Bt2	77.4	15.1	7.5
	46-72	Bt3	79.9	10.7	9.4
Lucedale: [1,2]	0-7	Ap	66.8	24.2	9.0
(S71AL-13-1)	7-16	Bt1	51.5	25.0	23.1
	16-43	Bt2	48.0	22.0	30.0
	43-80	Bt3	60.6	16.4	23.0
Malbis: [1,2]	0-4	Ap	56.4	37.5	6.1
(S87AL-025-2)	4-9	E	54.4	37.6	8.0
	9-19	Bt1	41.7	34.7	23.6
	19-38	Bt2	45.0	31.8	23.2
	38-47	Btv1	45.5	29.8	24.7
	47-80	Btv2	47.0	29.5	23.5
Maubila: [1,2]	0-5	A	67.8	25.0	7.2
(S83AL-025-6)	5-8	E	66.9	26.3	6.8
	8-15	Bt1	36.6	32.4	31.6
	15-22	Bt2	20.2	36.0	43.8
	22-42	Bt3	21.0	36.8	42.2
	42-55	BC	33.9	26.5	39.6
	55-80	C	24.2	25.1	50.7
McCrory: [1,2]	0-4	Ap	38.8	53.1	8.1
(S93AL-025-1)	4-9	E	39.9	50.7	9.4
	9-14	BE	33.5	51.9	14.6
	14-23	Btn	35.3	46.3	18.4
	23-35	Btng1	35.2	40.2	24.6
	35-47	Btng2	40.0	36.6	23.4
	47-58	Btng3	52.0	28.0	20.0
	58-72	Cg	60.3	23.7	16.0
Olla: [1,2]	0-4	A	76.7	18.0	5.3
(S89AL-025-1)	4-13	E	76.5	17.7	5.8
	13-22	Bt1	57.0	18.2	24.8
	22-37	Bt2	68.4	14.5	17.1
	37-80	C	59.6	18.4	22.0
Prim: [1,3]	0-7	A	38.7	26.2	35.1
(S77AL-025-18)	7-15	C	56.6	27.3	16.1
	15-80	Cr	----	----	----
Suggsville: [1,2]	0-1	A	22.1	29.7	48.2
(S02AL-025-1)	1-4	BA	22.0	26.4	51.6
	4-11	Bt	8.8	19.5	71.7
	11-21	Btss1	8.5	21.2	70.3
	21-26	Btss2	3.3	8.2	88.5
	26-35	Btss3	5.0	10.0	85.0
	35-42	Btss4	4.2	8.9	86.9
	42-80	2Cr	----	----	----

Table 21.--Physical Analyses of Selected Soils--Continued

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				
Watsonia: [1,2]	0-4	A	22.5	19.9	57.6
(S83AL-025-1)	4-15	Bss	5.9	21.2	72.9
	15-17	BC	10.1	21.8	68.1
	17-80	Cr	----	----	----

[1] This is the typical pedon for the series in Clarke County. For the description and location of the soil, see the section "Soil Series and Their Morphology."

[2] Analyses by the Agronomy and Soils Clay Mineralogy Laboratory, Auburn University, Auburn, Alabama.

[3] Analyses by the National Soil Survey Laboratory, Natural Resources Conservation Service, Lincoln, Nebraska.

Table 22.--Chemical Analyses of Selected Soils

Soil name and sample number	Depth	Horizon	Extractable bases				Extract-able acidity	Cation-exchange capacity		Base satur-ation	Reaction
			Ca	Mg	K	Na		CEC-7	ECEC		
	In		*meq/100 g*							*Pct*	*pH*
Cantuche: [1,3]	0-4	A1	1.4	0.7	0.3	0.0	16.1	16.4	---	15	4.3
(S77AL-025-19)	4-10	A2	0.8	0.6	0.2	0.0	6.9	7.7	---	21	4.5
	10-80	Cr	---	---	---	---	---	---	---	---	---
Harleston: [1,2]	0-6	Ap	0.18	0.05	0.05	0.06	0.83	2.38	1.17	18	5.2
(S87AL-025-1)	6-13	E	0.27	0.16	0.03	0.07	0.40	1.55	0.95	25	5.3
	13-27	Bt1	0.34	0.29	0.03	0.09	0.50	2.04	1.26	32	5.4
	27-46	Bt2	0.20	0.26	0.04	0.14	1.23	2.51	1.88	21	5.1
	46-72	Bt3	0.05	0.26	0.12	0.10	1.82	3.17	2.34	14	5.1
Lucedale: [1,2]	0-7	Ap	3.88	0.32	0.25	---	2.80	7.26	---	61	6.2
(S71AL-13-1)	7-16	Bt1	1.87	0.38	0.19	---	4.00	6.45	---	38	5.2
	16-43	Bt2	1.15	0.66	0.10	---	4.80	6.72	---	28	4.9
	43-80	Bt3	0.20	0.10	0.05	---	4.88	5.25	---	7	4.6
Malbis: [1,2]	0-4	Ap	0.44	0.17	0.21	0.07	1.12	3.80	2.01	22	5.0
(S87AL-025-2)	4-9	E	0.47	0.16	0.22	0.07	0.61	2.15	1.52	36	5.3
	9-19	Bt1	0.27	0.68	0.24	0.10	2.82	5.92	4.12	21	4.9
	19-38	Bt2	0.08	0.53	0.15	0.13	2.68	5.07	3.58	22	5.0
	38-47	Btv1	0.04	0.36	0.28	0.10	2.93	5.35	3.72	17	5.0
	47-80	Btv2	0.06	0.24	0.31	0.07	2.83	4.67	3.51	18	5.1
Maubila: [1,2]	0-5	A	0.30	0.09	0.07	---	3.60	4.06	---	11	4.8
(S83AL-025-6)	5-8	E	0.28	0.10	0.03	---	2.80	3.21	---	13	5.1
	8-15	Bt1	0.25	0.58	0.04	---	6.80	6.95	---	13	5.0
	15-22	Bt2	0.18	0.48	0.04	---	8.32	9.04	---	8	4.9
	22-42	Bt3	0.12	0.38	0.04	---	9.36	9.90	---	5	4.8
	42-55	BC	0.10	0.27	0.04	---	6.48	6.89	---	5	4.7
	55-80	C	0.10	0.32	0.06	---	7.28	7.76	---	6	4.6
McCrory: [1,2]	0-4	Ap	0.46	0.40	0.07	0.23	2.30	5.58	3.45	22	4.9
(S93AL-025-1)	4-9	E	0.27	0.71	0.05	0.53	2.09	4.63	3.65	32	5.4
	9-14	BE	0.38	1.92	0.09	3.27	1.79	7.48	7.45	55	5.5
	14-23	Btn	1.07	3.71	0.14	7.08	0.03	8.75	12.02	88	7.4
	23-35	Btng1	1.59	5.39	0.20	11.55	0.00	12.81	18.73	98	8.5
	35-47	Btng2	1.82	5.49	0.20	11.81	0.00	12.63	19.32	98	8.8
	47-58	Btng3	1.95	4.76	0.17	10.79	0.00	11.09	17.68	98	9.2
	58-72	Cg	2.09	4.09	0.16	10.05	0.00	9.77	16.39	99	9.4
Olla: [1,2]	0-4	A	0.10	0.07	0.08	0.02	2.17	4.97	2.43	9	4.2
(S89AL-025-1)	4-13	E	0.08	0.02	0.01	0.03	0.67	1.85	0.80	8	4.9
	13-22	Bt1	0.05	0.04	0.02	0.03	3.14	4.41	3.28	4	4.5
	22-37	Bt2	0.10	0.06	0.02	0.03	2.07	2.74	2.28	7	4.7
	37-80	C	0.08	0.08	0.06	0.03	2.34	3.97	2.50	8	4.8
Prim: [1,3]	0-7	A	---	---	---	---	---	---	---	---	7.5
(S77AL-025-18)	7-15	C	---	---	---	---	---	---	---	---	7.9
	15-80	Cr	---	---	---	---	---	---	---	---	---
Suggsville: [1,2]	0-1	A	25.37	4.12	0.41	0.11	0.09	41.56	30.08	---	5.0
(S02AL-025-1)	1-4	BA	22.36	3.90	0.19	0.08	0.36	35.37	26.89	---	4.8
	4-11	Bt	23.64	2.97	0.22	0.14	7.77	42.42	34.73	---	4.6
	11-21	Btss1	24.60	2.44	0.23	0.12	5.18	41.00	32.56	---	4.8
	21-26	Btss2	34.10	2.91	0.29	0.16	6.01	56.17	43.47	---	4.8
	26-35	Btss3	37.02	2.76	0.33	0.14	4.07	57.01	44.32	---	4.9
	35-42	Btss4	53.16	2.72	0.37	0.16	0.46	60.51	56.88	---	5.4
	42-80	2Cr	---	---	---	---	---	---	----	---	---

Table 22.--Chemical Analyses of Selected Soils--Continued

Soil name and sample number	Depth	Horizon	Extractable bases				Extract- able acidity	Cation-exchange capacity		Base satur- ation	Reaction
			Ca	Mg	K	Na		CEC-7	ECEC		
	In		*meq/100 g*							*Pct*	*pH*
Watsonia: [1,2] (S83AL-025-1)	0-4	A	21.90	2.18	0.16	---	6.00	30.26	---	80	5.8
	4-15	Bss	19.60	2.00	0.23	---	8.48	30.32	---	72	5.3
	15-17	BC	34.60	1.20	0.23	---	5.68	41.66	---	86	6.9
	17-80	Cr	---	---	---	---	---	---	---	---	---

[1] This is the typical pedon for the series in Clarke County. For the description and location of the soil, see the section "Soil Series and Their Morphology."

[2] Analyses by the Agronomy and Soils Clay Mineralogy Laboratory, Auburn University, Auburn, Alabama.

[3] Analyses by the National Soil Survey Laboratory, Natural Resources Conservation Service, Lincoln, Nebraska.

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
Arundel	Fine, smectitic, thermic Typic Hapludults
Bama	Fine-loamy, siliceous, subactive, thermic Typic Paleudults
Bibb	Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents
Boykin	Loamy, siliceous, active, thermic Arenic Paleudults
Brantley	Fine, mixed, active, thermic Ultic Hapludalfs
Cahaba	Fine-loamy, siliceous, semiactive, thermic Typic Hapludults
Cantuche	Loamy-skeletal, mixed, active, acid, thermic, shallow Typic Udorthents
Chrysler	Fine, mixed, semiactive, thermic Aquic Paleudults
Daleville	Fine-loamy, siliceous, active, thermic Typic Paleaquults
*Deerford	Fine-loamy, mixed, active, thermic Albic Glossic Natraqualfs
Escambia	Coarse-loamy, siliceous, semiactive, thermic Plinthaquic Paleudults
Eutrudepts	Thermic Typic Eutrudepts
*Flomaton	Sandy-skeletal, siliceous, thermic Psammentic Paleudults
Fluvaquents	Thermic Typic Fluvaquents
Halso	Fine, smectitic, thermic Vertic Hapludults
Harleston	Coarse-loamy, siliceous, semiactive, thermic Aquic Paleudults
Iuka	Coarse-loamy, siliceous, active, acid, thermic Aquic Udifluvents
Izagora	Fine-loamy, siliceous, semiactive, thermic Aquic Paleudults
Jedburg	Fine-loamy, siliceous, semiactive, thermic Aeric Paleaquults
Latonia	Coarse-loamy, siliceous, semiactive, thermic Typic Hapludults
Lenoir	Fine, mixed, semiactive, thermic Aeric Paleaquults
Lorman	Fine, smectitic, thermic Chromic Vertic Hapludalfs
Lucedale	Fine-loamy, siliceous, subactive, thermic Rhodic Paleudults
Luverne	Fine, mixed, semiactive, thermic Typic Hapludults
Malbis	Fine-loamy, siliceous, subactive, thermic Plinthic Paleudults
Mantachie	Fine-loamy, siliceous, active, acid, thermic Fluventic Endoaquepts
Maubila	Fine, mixed, subactive, thermic Aquic Hapludults
McCrory	Fine-loamy, mixed, active, thermic Albic Glossic Natraqualfs
Mooreville	Fine-loamy, siliceous, active, thermic Fluvaquentic Dystrudepts
Myatt	Fine-loamy, siliceous, active, thermic Typic Endoaquults
Ochlockonee	Coarse-loamy, siliceous, active, acid, thermic Typic Udifluvents
Ocilla	Loamy, siliceous, semiactive, thermic Aquic Arenic Paleudults
Okeelala	Fine-loamy, siliceous, semiactive, thermic Ultic Hapludalfs
Olla	Fine-loamy, siliceous, active, thermic Typic Hapludults
Pelham	Loamy, siliceous, subactive, thermic Arenic Paleaquults
Prim	Loamy-skeletal, carbonatic, thermic, shallow Typic Haprendolls
Quitman	Fine-loamy, siliceous, semiactive, thermic Aquic Paleudults
Rayburn	Fine, smectitic, thermic Vertic Hapludalfs
Riverview	Fine-loamy, mixed, active, thermic Fluventic Dystrudepts
Saffell	Loamy-skeletal, siliceous, semiactive, thermic Typic Hapludults
Savannah	Fine-loamy, siliceous, semiactive, thermic Typic Fragiudults
Smithdale	Fine-loamy, siliceous, subactive, thermic Typic Hapludults
Suggsville	Very-fine, smectitic, thermic Chromic Dystruderts
Toxey	Fine, smectitic, thermic Vertic Eutrudepts
Udorthents	Thermic Typic Udorthents
Una	Fine, mixed, active, acid, thermic Typic Epiaquepts
Urbo	Fine, mixed, active, acid, thermic Vertic Epiaquepts
Wadley	Loamy, siliceous, subactive, thermic Grossarenic Paleudults
Watsonia	Clayey, smectitic, thermic, shallow Leptic Hapluderts

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