United States Department of Agriculture

Natural Resources Conservation Service

In cooperation with Virginia Polytechnic Institute and State University

Soil Survey of Southampton County, Virginia

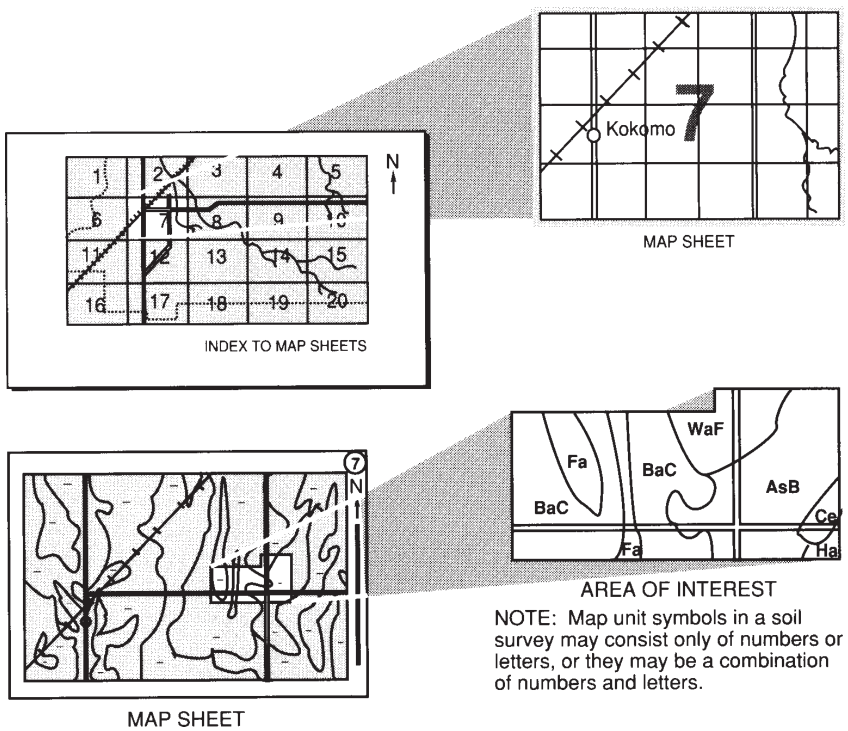
How To Use This Soil Survey

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 go to that sheet.

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

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



National Cooperative Soil Survey

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey. This survey was made cooperatively by the Natural Resources Conservation Service and the Virginia Polytechnic Institute and State University. The survey is part of the technical assistance furnished to the Chowan Basin Soil and Water Conservation District (formerly the J.R. Horsley Soil and Water Conservation District). The Southampton County Board of Supervisors provided financial assistance for the survey.

Major fieldwork for this soil survey was completed in 1995. Soil names and descriptions were approved in 1996. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1995. The most current official data are available on the Internet.

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

Nondiscrimination Statement

Cover Caption

Baled peanuts in an area of Uchee loamy sand, 0 to 6 percent slopes.

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

Contents

Issued 2009

Foreword

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

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

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

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

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

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

John A. Bricker
State Conservationist
Natural Resources Conservation Service

Soil Survey of
Southampton County, Virginia

By the Virginia Soil Survey Staff, Natural Resources Conservation Service

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United States Department of Agriculture, Natural Resources Conservation Service
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Southampton County is in the southeastern Coastal Plain region south of the James River, approximately 60 miles south-southeast of Richmond (fig. 1). It is bordered on the west and north by Greensville, Sussex, and Surry Counties, on the east by Isle of Wight County and the Cities of Franklin and Suffolk, and on the south by Northampton, Hertford, and Gates Counties, North Carolina.

Southampton County has a total area of 390,800 acres, or 610.6 square miles. Land area makes up 387,897 acres, or 606 square miles, and water makes up 2,903 acres, or 4.6 square miles.

Courtland is the county seat. It is located in the central part of the county at the intersection of Highways US-58 and VA-35. Other incorporated towns are Boykins, Branchville, Capron, Drewryville, Ivor, and Newsoms. Boykins, Branchville, and Newsoms are located in the southern part of the county; Drewryville and Capron are located in the western and central part of the county; and Ivor is located in the northern part of the county. In 2000, the population of the county was 17,482 (USDC, 2000).

Wood products and agricultural field crops, namely corn, soybeans, cotton, peanuts, and small grains, are important to the economy of the county. About 68 percent of the land area, or about 263,900 acres, is woodland and 32 percent, or about 124,000 acres, is used for agriculture.

This soil survey updates the soil survey of Southampton County, Virginia, issued in 1937 (USDA, 1937). This newer soil survey provides a photographic base map and includes information and interpretations that were not included in the earlier soil survey.

General Nature of the Survey Area

This section provides general information about the survey area. It describes history and development; agriculture and forestry; physiography, relief, and drainage; and climate.

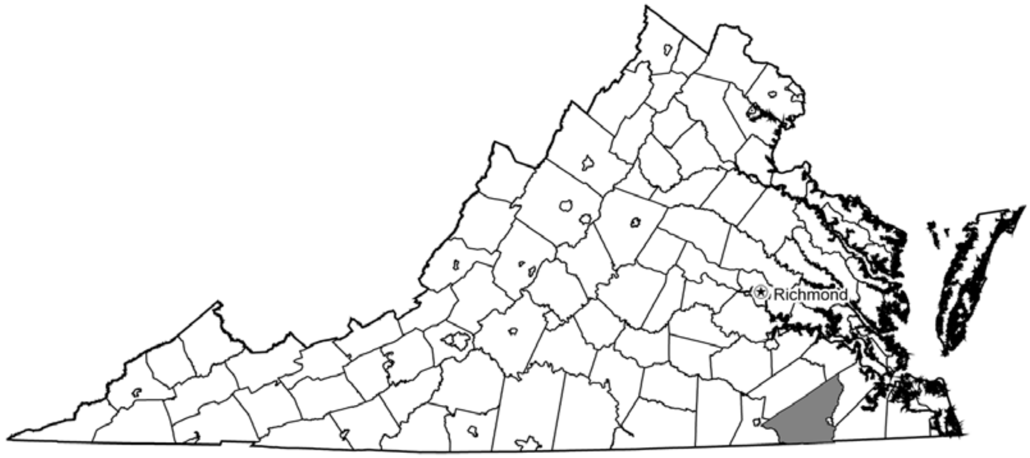

Figure 1.—Location of Southampton County in Virginia.

History and Development

Southampton County was originally part of Warrasquoyocke, one of the eight shires making up the Colony of Virginia. Warrasquoyocke was renamed Isle of Wight in 1637. The portion of Isle of Wight County west of the Blackwater River became Southampton County in 1749. Later, a part of Nansemond County, which is now the City of Suffolk, was added to Southampton (Southampton County, Virginia, 2007).

The clerk’s office, prison, and pillory were built on the eastern bank of the Nottoway River in 1751. The first courthouse was added to the complex in 1752 where the present courthouse now stands. The village of Jerusalem grew up around the courthouse, becoming a town in 1791. Jerusalem was re-incorporated as the Town of Courtland in the late 1800’s.

The most serious slave rebellion in U.S. history occurred in Southampton County in 1831. It took place on August 21-22. The infamous Southampton Insurrection, led by the slave Nat Turner, resulted in the deaths of 58 whites and an unknown number of blacks. Turner and his followers were captured and tried and 20 were hanged.

The arrival of railroads in 1835 was a significant event. The Portsmouth and Roanoke Railroad bridged the Blackwater and Nottoway Rivers and extended its line across the county. The railroad brought increased populations and commerce, leading to the development of the Town of Franklin in the early 1840’s. Franklin was chartered as an independent city in 1960. The Town of Ivor was founded as a result of the Petersburg-Norfolk Railroad (now the Norfolk & Western Railway) in 1857.

Recovery from the Civil War came slowly, but railroad construction finally resumed with the construction of the Surry, Sussex and Southampton logging railroad in 1886 and the Atlantic and Danville Railway in 1888 (now the Norfolk, Franklin and Danville Railway, a subsidiary of the N & W Railway). The last railroad to be built in the county was the Tidewater Railway in 1906. It was later known as the Virginian Railway and ran through Sedley, Sebrell, Joyner, and Burdette.

The end of World War II brought about an increase of business activities. St. Regis Paper Company came to Franklin in 1954 and Hercules Chemical Company in 1955. In 1961, the Boykins Narrow Fabric Corporation began construction of its facility within the town of Boykins. In 1956, Union Bag and Paper merged with Camp Manufacturing Company to form Union Camp. In 1999, Union Camp and International Paper merged. International Paper, located just across the Blackwater River in Isle of Wight County, is currently the largest industry in the region.

Agriculture was booming in the second half of the 20th century. Peanuts and soybeans replaced cotton and tobacco as the chief cash crops. Advances in technology, particularly enhanced mechanization, resulted in increased agricultural production and a growing reputation for Southampton peanuts, hams, and watermelons.

Although farm employment decreased in the 1960's and 1970's, the county experienced a larger increase in industry-related employment. The economy remains healthy (Southampton County, Virginia, 2007).

Agriculture and Forestry

According to the 2002 Census of Agriculture, Southampton County has about 88,200 acres of select crops (USDA-NASS, 2002). Cotton (31,000 acres) and peanuts (9,500 acres) are ranked first in the State. Soybeans (31,000 acres) are ranked third in the State, wheat (5,700 acres) is ranked twelfth, and corn (10,500 acres) is ranked thirteenth. Hay is grown on about 500 acres. A few truck farms raise specialty crops, such as tomatoes, beans, melons, cucumbers, and strawberries. Livestock operations are varied in the county. Swine (more than 82,000 head), beef (more than 2,000 head), and broiler (more than 2.2 million head) operations are numerous in the county while dairy (less than 30) and sheep and lamb (less than 400) operations are quite limited.

The acreage of cultivated crops has been gradually decreasing since the 1960's. Some areas of cropland and pasture have been converted to community development.

Soil erosion is a concern on soils with greater than 2 percent slopes. If the surface layer is lost to erosion, most of the available nutrients and organic matter are lost. Organic matter improves soil structure, the rate of water infiltration, available water capacity, and soil tilth. On most soils, erosion of the surface layer is especially damaging because germination of seeds is difficult in the firm, underlying soil layers. Erosion on farmland causes sedimentation of streams and ponds and thus reduces water quality for municipal use and for fish and wildlife.

Soil blowing is a concern on soils that have a sandy surface layer. Maintaining a plant cover or using crop residue as surface mulch helps to control soil blowing.

Southampton County was originally covered by virgin forest but almost all of the land area has been cleared at least once for cultivation. The current-day woodlands are composed of second-growth hardwoods and loblolly pine. The county ranks third in the State for average annual harvest of wood products.

Physiography, Relief, and Drainage

Southampton County is in the Southern Coastal Plain and Atlantic Coast Flatwoods Major Land Resource Areas (MLRAs). Elevation ranges from about 18 feet above sea level along the Blackwater, Meherrin, and Nottoway Rivers to 100 feet in the western and northern parts of the county. The entire county drains through the Blackwater, Meherrin, and Nottoway Rivers to the Chowan River and the Albemarle Sound in North Carolina. Streams are very slow running, and swamps in the county are associated with all three major rivers and their tributaries. The Meherrin River forms the western boundary of the county while the Blackwater River marks the eastern boundary. The Nottoway River snakes its way down through the central part of the county and joins with the Blackwater River at the county and State line to form the Chowan River.

Most of the land area has a nearly level to strongly sloping topography. These uplands have been deeply eroded by numerous rivers and streams of dendritic watersheds. Moderately steep to very steep side slopes are typical along incised drainageways.

The soils in Southampton County range widely from sand and loamy sand to clay. Gravel deposits are limited in extent.

Climate

Table 1 gives data on temperature and precipitation for the survey area as recorded at Holland, Virginia, in the period 1961 to 1990. 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 39.9 degrees F and the average daily minimum temperature is 29.3 degrees. The lowest temperature on record, which occurred on February 5, 1996, is -5 degrees. In summer, the average temperature is 75.8 degrees and the average daily maximum temperature is 86.4 degrees. The highest recorded temperature, which occurred on June 27, 1952, is 105 degrees.

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

The total annual precipitation is 48.09 inches. Of this, 29.9 inches, or about 62 percent, usually falls in April through October. The growing season for most crops falls within this period. In 2 years out of 10, the rainfall in April through October is less than 15.7 inches. The heaviest 1-day rainfall during the period of record was 8.60 inches, recorded on September 27, 1985. Thunderstorms occur on about 37 days each year and most occur in June, July, or August.

The average seasonal snowfall is 8.9 inches. The greatest snow depth at any one time during the period of record was 14 inches, recorded on January 30, 1966. On the average, 7 days of the year have at least 1 inch of snow on the ground. The number of such days varies greatly from year to year. The heaviest 1-day snowfall on record was more than 9.0 inches, recorded on March 2, 1980.

The average relative humidity in mid-afternoon is about 57 percent. Humidity is higher at night, and the average at dawn is about 79 percent. The sun shines 64 percent of the time possible in summer and 56 percent in winter. The prevailing wind is mainly from the southwest; it is from the northeast in September and October. Average windspeed is highest, around 12 miles per hour, from February to April.

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.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA-NRCS, 2006). Soil survey areas typically consist of parts of one or more MLRAs.

The soils and miscellaneous areas in the survey area occur 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.

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.

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*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. The soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Slagle fine sandy loam, 0 to 2 percent slopes, is a phase of the Slagle 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. Urban land-Udorthents complex, 0 to 2 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. Rumford, Kenansville, and Uchee soils, 0 to 6 percent slopes, 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. Water is an example.

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

1B—Alaga loamy sand, 0 to 6 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces and stream terraces along the Blackwater River
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 30 acres

Map Unit Composition

Alaga and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Organic layer:
0 to 1 inch—partially decayed pine and oak litter

Surface layer:
1 to 4 inches—light olive brown loamy sand

Substratum:
4 to 35 inches—pale yellow loamy fine sand
35 to 69 inches—pale yellow and light gray sand
69 to 84 inches—light yellowish brown sand; yellow masses of oxidized iron

Minor Components

Dissimilar components:
- Pactolus soils, which are moderately well drained; in depressions and drainageways and on footslopes of narrow ridges
- Rumford and Uchee soils, which have more clay in the subsoil; in similar landscape positions
- Slagle soils, which have more clay in the subsoil and are moderately well drained; in depressions and drainageways and on broad interfluve summits
- Other soils that have a seasonal water table below a depth of 40 inches

Similar components:
- Soils that have gravel throughout; in similar landscape positions
- Soils that have lamellae in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Low (about 3.1 inches)
Slowest saturated hydraulic conductivity: High (about 6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Somewhat excessively drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Surface fragments: None
Parent material: Sandy marine deposits and/or sandy alluvium

Use and Management Considerations

Cropland
Suitability: Moderately suited to wheat; poorly suited to corn, soybeans, and grass-legume hay; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- The limited available water capacity may cause plants to suffer from moisture stress.
- Sandy or coarse textured layers accelerate the rate at which plant nutrients are leached.

Pastureland
Suitability: Poorly suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- The limited available water capacity may cause plants to suffer from moisture stress during the drier summer months.

Woodland
Suitability: Moderately suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.

Building sites
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- This soil is well suited to local roads and streets.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4s
Virginia soil management group: II
Hydric soil: No

2A—Altavista fine sandy loam, 0 to 2 percent slopes, rarely flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Position on the landform: Treads (some areas are depressions)
Shape and size of areas: Elongated or irregular, 3 to 150 acres

Map Unit Composition

Altavista and similar soils: Typically 85 percent, ranging from about 70 to 90 percent

Typical Profile

Surface layer:
0 to 11 inches—brown fine sandy loam

Subsoil:
11 to 19 inches—light yellowish brown loam
19 to 26 inches—yellowish brown clay loam
26 to 38 inches—yellowish brown sandy clay loam; light gray iron depletions and brownish yellow masses of oxidized iron

Substratum:
38 to 51 inches—light gray sandy clay loam; brownish yellow and yellowish red masses of oxidized iron
51 to 72 inches—brownish yellow sandy loam; light gray iron depletions

Minor Components

Dissimilar components:
- Bojac and Tarboro soils, which are well drained and somewhat excessively drained, respectively; on narrow ridge summits, shoulders, and knolls
- Craven soils, which have more clay in the subsoil; in similar landscape positions
- Seabrook soils, which have a sandy subsoil; in similar landscape positions
- Tomotley soils, which are poorly drained; in depressions and drainageways

Similar components:
- Munden soils, which have less clay in the subsoil; in similar landscape positions
- State soils, which are well drained; on narrow ridge summits, shoulders, and knolls

Soil Properties and Qualities

Available water capacity: Moderate (about 8.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 18 to 30 inches

Water table kind: Apparent
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Loamy alluvium

Use and Management Considerations

Cropland
- This soil is well suited to corn, soybeans, wheat, and grass-legume hay and moderately suited to alfalfa hay.

Pastureland
- This soil is well suited to pastureland.

Woodland
Suitability: Well suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2w
Virginia soil management group: B
Hydric soil: No

2B—Altavista fine sandy loam, 2 to 6 percent slopes, rarely flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Position on the landform: Treads (some areas are depressions)
Shape and size of areas: Elongated or irregular, 3 to 150 acres

Map Unit Composition

Altavista and similar soils: Typically 85 percent, ranging from about 70 to 90 percent

Typical Profile

Surface layer:
0 to 11 inches—brown fine sandy loam

Subsoil:
11 to 19 inches—light yellowish brown loam
19 to 26 inches—yellowish brown clay loam
26 to 38 inches—yellowish brown sandy clay loam; light gray iron depletions and brownish yellow masses of oxidized iron

Substratum:
38 to 51 inches—light gray sandy clay loam; brownish yellow and yellowish red masses of oxidized iron
51 to 72 inches—brownish yellow sandy loam; light gray iron depletions

Minor Components

Dissimilar components:
- Bojac and Tarboro soils, which are well drained and somewhat excessively drained, respectively; on narrow ridge summits, shoulders, and knolls
- Craven soils, which have more clay in the subsoil; in similar landscape positions
- Seabrook soils, which have a sandy subsoil; in similar landscape positions
- Tomotley soils, which are poorly drained; in depressions and drainageways

Similar components:
- Munden soils, which have less clay in the subsoil; in similar landscape positions
- State soils, which are well drained; on narrow ridge summits, shoulders, and knolls

Soil Properties and Qualities

Available water capacity: Moderate (about 8.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 18 to 30 inches
Water table kind: Apparent
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Loamy alluvium

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, and grass-legume hay; moderately suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
*Suitability:*Well suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: B
Hydric soil: No

3A—Augusta sandy loam, 0 to 2 percent slopes, rarely flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces and drainageways along the Nottoway and Meherrin Rivers
Position on the landform: Treads and base slopes
Shape and size of areas: Elongated or irregular, 3 to 25 acres

Map Unit Composition

Augusta and similar soils: Typically 85 percent, ranging from about 70 to 90 percent

Typical Profile

Organic layer:
0 to 3 inches—slightly decomposed plant material

Surface layer:
3 to 6 inches—brown sandy loam

Subsurface layer:
6 to 11 inches—light yellowish brown sandy loam; light brownish gray iron depletions and olive yellow masses of oxidized iron

Subsoil:
11 to 26 inches—light yellowish brown sandy clay loam; olive yellow masses of oxidized iron
26 to 36 inches—grayish brown sandy clay loam; olive yellow masses of oxidized iron
36 to 46 inches—light gray sandy clay loam; olive yellow masses of oxidized iron

Substratum:
46 to 54 inches—white sandy loam
54 to 65 inches—white sand; light brownish gray iron depletions and pale yellow masses of oxidized iron
65 to 84 inches—brownish yellow sand; pale yellow masses of oxidized iron and white iron depletions

Minor Components

Dissimilar components:
- Tarboro and State soils, which are somewhat excessively drained and well drained, respectively; in higher landscape positions
- Craven soils, which have more clay in the subsoil and are moderately well drained; on low ridges and knolls
- Roanoke soils, which have more clay in the subsoil and are poorly drained; in depressions and drainageways

Similar components:
- Altavista soils, which are moderately well drained; on low ridges and knolls
- Munden soils, which are moderately well drained and have less clay in the subsoil; on low ridges and knolls
- Soils that have less clay in the subsoil; in similar landscape positions
- Tomotley soils, which are poorly drained; in depressions and drainageways

Soil Properties and Qualities

Available water capacity: Moderate (about 7.9 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Somewhat poorly drained
Depth to seasonal water saturation: About 12 to 24 inches
Water table kind: Apparent
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very high
Surface fragments: None
Parent material: Loamy alluvium

Use and Management Considerations

Cropland
Suitability: Moderately suited to corn, soybeans, and wheat; poorly suited to grass-legume hay; not suited to alfalfa hay
- The seasonal high water table restricts equipment operation, decreases the viability of crops, and interferes with the planting and harvesting of crops.

Pastureland
Suitability: Poorly suited to pasture
- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland

Suitability: Well suited to loblolly pine and southern red oak; moderately suited to sweetgum

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Soil wetness may limit the use of log trucks.
- This soil is well suited to haul roads and log landings.

Building sites

- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets

- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Prime farmland if drained
Land capability class: 4w
Virginia soil management group: Z
Hydric soil: No

4A—Bibb sandy loam, 0 to 2 percent slopes, frequently flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Flood plains along the Blackwater River and drainageways
Position on the landform: Treads and base slopes
Shape and size of areas: Elongated or irregular, 3 to 300 acres

Map Unit Composition

Bibb and similar soils: Typically 95 percent, ranging from about 90 to 100 percent

Typical Profile

Surface layer:
0 to 8 inches—very dark grayish brown sandy loam; dark yellowish brown masses of oxidized iron

Substratum:
8 to 14 inches—light brownish gray sandy loam
14 to 39 inches—light brownish gray sandy loam; brownish yellow masses of oxidized iron
39 to 50 inches—light brownish gray sandy loam; olive yellow masses of oxidized iron
50 to 60 inches—light brownish gray loamy sand; olive yellow masses of oxidized iron

60 to 68 inches—gray loamy sand
68 to 75 inches—dark gray loamy sand
75 to 84 inches—gray loamy sand

Minor Components

Dissimilar components:
- Chewacla soils, which are somewhat poorly drained; on flood plains
- Myatt and Chastain soils, which have more clay in the subsoil; in drainageways and depressions
- Pactolus soils, which are moderately well drained; on low ridges and knolls
- Remlik soils, which are well drained; on steep slopes
- Nevarc and Winton soils, which are moderately well drained; on steeper slopes

Similar components:
- Soils that have a sandier subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Poorly drained
Depth to seasonal water saturation: About 0 to 12 inches
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very high
Surface fragments: None
Parent material: Loamy and sandy alluvium

Use and Management Considerations

Cropland
- This soil is unsuited to cropland.

Pastureland
Suitability: Poorly suited to pasture
- Flooding may damage pastures.
- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland
Suitability: Well suited to loblolly pine; moderately suited to sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding restricts the safe use of roads by log trucks.
- Soil wetness may limit the use of log trucks.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- Flooding is a limitation affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- Flooding may damage local roads and streets.
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6w
Virginia soil management group: EE
Hydric soil: Yes

5B—Bojac loamy sand, 2 to 6 percent slopes, very rarely flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 100 acres

Map Unit Composition

Bojac and similar soils: Typically 75 percent, ranging from about 65 to 85 percent

Typical Profile

Surface layer:
0 to 13 inches—light olive brown loamy sand; black manganese coatings

Subsoil:
13 to 30 inches—yellowish brown sandy loam; black manganese coatings and dark yellowish brown and brownish yellow masses of oxidized iron
30 to 37 inches—yellowish brown sandy loam
37 to 48 inches—yellowish brown sandy loam; strong brown masses of oxidized iron

Substratum:
48 to 66 inches—yellowish brown and strong brown sand; white iron depletions

Minor Components

Dissimilar components:
- Altavista, Seabrook, and Munden soils, which are moderately well drained; in slightly lower landscape positions
- Augusta soils, which are somewhat poorly drained; in depressions and drainageways on stream terraces
- Tarboro soils, which have a sandier subsoil; in similar landscape positions
- Tomotley soils, which are poorly drained and have more clay in the subsoil; in drainageways

Similar components:
- Soils that have redder subsoils; in similar landscape positions
- State soils, which have more clay in the subsoil; in similar landscape positions
- Soils that have a thick sandy surface layer; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Low (about 5.8 inches)
Slowest saturated hydraulic conductivity: High (about 2 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 48 to 79 inches
Water table kind: Apparent
Flooding hazard: Very rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Surface fragments: None
Parent material: Loamy and sandy alluvium

Use and Management Considerations

Cropland
Suitability: Well suited to wheat and grass-legume hay; moderately suited to corn; poorly suited to soybeans; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland
Suitability: Moderately suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
Suitability: Moderately suited to loblolly pine, southern red oak, and sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- This soil is well suited to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: DD
Hydric soil: No

6A—Buncombe loamy sand, 0 to 2 percent slopes, occasionally flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Flood plains along the Nottoway and Meherrin Rivers
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 30 acres

Map Unit Composition

Buncombe and similar soils: Typically 80 percent, ranging from about 75 to 85 percent

Typical Profile

Organic layer:
0 to 2 inches—slightly decomposed plant material

Surface layer:
2 to 7 inches—very dark grayish brown loamy sand

Substratum:
7 to 38 inches—olive yellow loamy sand
38 to 58 inches—pale yellow sand
58 to 84 inches—olive yellow gravelly sand

Minor Components

Dissimilar components:
- Riverview soils, which are well drained and have more clay in the subsoil; on flood plains
- Chewacla soils, which are somewhat poorly drained and have more clay in the subsoil; on flood plains
- Dorovan soils, which are very poorly drained; on flood plains and in swamps

Similar components:
- Soils that have gravel throughout; in similar landscape positions
- Soils that have sandy loam lamellae in the subsoil; in similar landscape positions
- Tarboro soils, which are somewhat excessively drained; on stream terraces

Soil Properties and Qualities

Available water capacity: Low (about 3.1 inches)
Slowest saturated hydraulic conductivity: High (about 6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches

Drainage class: Excessively drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: Occasional
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Surface fragments: None
Parent material: Sandy alluvium

Use and Management Considerations

Cropland

Suitability: Moderately suited to wheat; poorly suited to corn, soybeans, and grass-legume hay; not suited to alfalfa hay

- The limited available water capacity may cause plants to suffer from moisture stress.
- Sandy or coarse textured layers accelerate the rate at which plant nutrients are leached.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.
- Flooding may damage crops.

Pastureland

Suitability: Poorly suited to pasture

- The limited available water capacity may cause plants to suffer from moisture stress during the drier summer months.
- Flooding may damage pastures.

Woodland

Suitability: Well suited to loblolly pine and yellow-poplar

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding restricts the safe use of roads by log trucks.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites

- Flooding is a limitation affecting building site development.

Septic tank absorption fields

- Flooding is a limitation affecting septic tank absorption fields.

Local roads and streets

- Flooding may damage local roads and streets.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4s
Virginia soil management group: II
Hydric soil: No

7A—Chastain loam, 0 to 2 percent slopes, frequently flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Flood plains along the Nottoway and Meherrin Rivers
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 10 to 200 acres

Map Unit Composition

Chastain and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

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

Subsoil:
3 to 12 inches—dark gray clay loam; olive yellow masses of oxidized iron
12 to 49 inches—gray clay loam; olive yellow masses of oxidized iron

Substratum:
49 to 60 inches—gray clay loam; olive yellow masses of oxidized iron
60 to 70 inches—gray stratified clay loam to sandy clay loam; olive yellow masses of oxidized iron
70 to 84 inches—light gray clay; olive yellow masses of oxidized iron

Minor Components

Dissimilar components:
- Chewacla soils, which are somewhat poorly drained and have less clay in the subsoil; on flood plains
- Tomotley soils, which have less clay in the subsoil; on low river terraces
- Riverview and Buncombe soils, which are well drained and excessively drained, respectively, and have less clay in the subsoil; on flood plains

Similar components:
- Soils that have less clay in the subsoil; in similar landscape positions
- Soils that are ponded; on low river terraces
- Bibb and Dorovan soils, which are poorly drained and very poorly drained, respectively, and have less clay in the soil; on flood plains or in swamps

Soil Properties and Qualities

Available water capacity: Moderate (about 8.3 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Poorly drained
Depth to seasonal water saturation: About 0 to 12 inches
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Very high
Surface fragments: None
Parent material: Clayey and loamy alluvium

Use and Management Considerations

Cropland
- This soil is unsuited to cropland.

Pastureland
- This soil is unsuited to pastureland.

Woodland
Suitability: Moderately suited to sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding restricts the safe use of roads by log trucks.
- Soil wetness may limit the use of log trucks.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- Flooding is a limitation affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- Flooding may damage local roads and streets.
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7w
Virginia soil management group: LL
Hydric soil: Yes

8A—Chastain loam, 0 to 2 percent slopes, ponded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Flood plains along the Nottoway and Meherrin Rivers (some areas are slightly concave)
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 10 to 200 acres

Map Unit Composition

Chastain and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

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

Subsoil:
3 to 12 inches—dark gray clay loam; olive yellow masses of oxidized iron
12 to 49 inches—gray clay loam; olive yellow masses of oxidized iron

Substratum:
49 to 60 inches—gray clay loam; olive yellow masses of oxidized iron
60 to 70 inches—gray stratified clay loam to sandy clay loam; olive yellow masses of oxidized iron
70 to 84 inches—light gray clay; olive yellow masses of oxidized iron

Minor Components

Dissimilar components:
- Chewacla soils, which are somewhat poorly drained and have less clay in the subsoil; on flood plains
- Tomotley soils, which have less clay in the subsoil; on low river terraces
- Riverview and Buncombe soils, which are well drained and excessively drained, respectively, and have less clay in the subsoil; on flood plains

Similar components:
- Soils that have less clay in the subsoil; in similar landscape positions
- Roanoke soils on low river terraces
- Bibb and Dorovan soils, which are poorly drained and very poorly drained, respectively, and have less clay in the soil; on flood plains or in swamps

Soil Properties and Qualities

Available water capacity: Moderate (about 8.3 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Poorly drained
Depth to seasonal water saturation: About 0 inches
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: Frequent
Depth of ponding: 0.0 to 3.0 feet
Shrink-swell potential: Moderate
Runoff class: Negligible
Surface fragments: None
Parent material: Clayey and loamy alluvium

Use and Management Considerations

Cropland
- This soil is unsuited to cropland.

Pastureland
- This soil is unsuited to pastureland.

Woodland
Suitability: Moderately suited to sweetgum

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding and ponding restrict the safe use of roads by log trucks.
- Soil wetness may limit the use of log trucks.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites
- Flooding and ponding are limitations affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- Flooding and ponding are limitations affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- Flooding may damage local roads and streets.
- Ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7w
Virginia soil management group: LL
Hydric soil: Yes

9A—Chewacla loam, 0 to 2 percent slopes, frequently flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Flood plains along the Nottoway and Meherrin Rivers
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 30 acres

Map Unit Composition

Chewacla and similar soils: Typically 95 percent, ranging from about 90 to 100 percent

Typical Profile

Surface layer:
0 to 6 inches—olive brown loam; black manganese coatings and light olive brown masses of oxidized iron

Subsoil:
6 to 12 inches—olive brown silty clay loam; black manganese coatings and grayish brown iron depletions
12 to 23 inches—strong brown loam; grayish brown iron depletions and black manganese coatings
23 to 32 inches—light olive brown loam; light brownish gray iron depletions and black manganese coatings

Substratum:
32 to 40 inches—grayish brown silty clay loam; black manganese coatings, gray clay depletions, and brownish yellow and yellowish brown masses of oxidized iron
40 to 45 inches—grayish brown silty clay loam; yellowish brown and brownish yellow masses of oxidized iron and black manganese coatings
45 to 53 inches—grayish brown silty clay loam; black manganese coatings and yellowish brown and brownish yellow masses of oxidized iron
53 to 70 inches—light yellowish brown and dark yellowish brown silt loam; black manganese coatings, strong brown masses of oxidized iron, and gray iron depletions
70 to 84 inches—gray and light gray silt loam; black manganese coatings and yellowish brown and dark yellowish brown masses of oxidized iron

Minor Components

Dissimilar components:
- Chastain and Dorovan soils, which are poorly drained and very poorly drained, respectively; on flood plains or in swamps
- Riverview and Buncombe soils, which are well drained and excessively drained, respectively; in similar landscape positions

Similar components:
- Soils that have gravel throughout; in similar landscape positions
- Soils that have more silt in the subsoil; in similar landscape positions
- Soils that are somewhat poorly drained; in slightly lower landscape positions

Soil Properties and Qualities

Available water capacity: High (about 11.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Somewhat poorly drained
Depth to seasonal water saturation: About 6 to 24 inches
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very high
Surface fragments: None
Parent material: Loamy alluvium

Use and Management Considerations

Cropland
- This soil is unsuited to cropland.

Pastureland
Suitability: Well suited to pasture
- Flooding may damage pastures.

- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland
Suitability: Well suited to loblolly pine; Moderately suited to yellow-poplar and sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding restricts the safe use of roads by log trucks.
- Soil wetness may limit the use of log trucks.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- Flooding is a limitation affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- Flooding may damage local roads and streets.
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6w
Virginia soil management group: I
Hydric soil: No

10A—Craven fine sandy loam, 0 to 2 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads
Shape and size of areas: Elongated or irregular, 3 to 50 acres

Map Unit Composition

Craven and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

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

Subsoil:
7 to 15 inches—yellowish brown clay loam
15 to 24 inches—yellowish brown clay; red masses of oxidized iron
24 to 43 inches—light yellowish brown clay; red masses of oxidized iron and gray iron depletions
43 to 55 inches—light gray clay; red masses of oxidized iron

Substratum:
55 to 65 inches—light gray clay loam; red masses of oxidized iron

Minor Components

Dissimilar components:
- Emporia and Uchee soils, which are well drained; in similar landscape positions

Similar components:
- Slagle and Nansemond soils, which have less clay in the subsoil; in similar landscape positions
- Remlik soils, which are well drained; on steeper slopes
- Winton soils, which have less clay in the subsoil; on steeper slopes
- Nevarc soils, which are moderately well drained and have a perched water table; on steeper slopes
- Soils that have redder hues in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 24 to 36 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Low
Surface fragments: None
Parent material: Clayey marine deposits

Use and Management Considerations

Cropland
Suitability: Moderately suited to corn, wheat, and grass-legume hay; poorly suited to soybeans; not suited to alfalfa hay
- The high clay content restricts the rooting depth of crops.

Pastureland
- This soil is well suited to pastureland.

Woodland
Suitability: Well suited to loblolly pine and southern red oak
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- The stickiness of the soil restricts the use of equipment for site preparation to the drier periods.
- This soil is well suited to haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2w
Virginia soil management group: HH
Hydric soil: No

10B—Craven fine sandy loam, 2 to 6 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads
Shape and size of areas: Elongated or irregular, 3 to 70 acres

Map Unit Composition

Craven and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

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

Subsoil:
7 to 15 inches—yellowish brown clay loam
15 to 24 inches—yellowish brown clay; red masses of oxidized iron
24 to 43 inches—light yellowish brown clay; red masses of oxidized iron and gray iron depletions
43 to 55 inches—light gray clay; red masses of oxidized iron

Substratum:
55 to 65 inches—light gray clay loam; red masses of oxidized iron

Minor Components

Dissimilar components:
- Emporia and Uchee soils, which are well drained; in similar landscape positions

Similar components:
- Slagle and Nansemond soils, which have less clay in the subsoil; in similar landscape positions
- Remlik soils, which are well drained; on steeper slopes
- Winton soils, which have less clay in the subsoil; on steeper slopes
- Nevarc soils, which are moderately well drained and have a perched water table; on steeper slopes
- Soils that have redder hues in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 24 to 36 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Low
Surface fragments: None
Parent material: Clayey marine deposits

Use and Management Considerations

Cropland
Suitability: Moderately suited to corn, wheat, and grass-legume hay; poorly suited to soybeans; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland
Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
Suitability: Well suited to loblolly pine and southern red oak
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- The stickiness of the soil restricts the use of equipment for site preparation to the drier periods.
- This soil is well suited to haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

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

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: HH
Hydric soil: No

10C—Craven fine sandy loam, 6 to 10 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 30 acres

Map Unit Composition

Craven and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

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

Subsoil:
7 to 15 inches—yellowish brown clay loam
15 to 24 inches—yellowish brown clay; red masses of oxidized iron
24 to 43 inches—light yellowish brown clay; red masses of oxidized iron and gray iron depletions
43 to 55 inches—light gray clay; red masses of oxidized iron

Substratum:
55 to 65 inches—light gray clay loam; red masses of oxidized iron

Minor Components

Dissimilar components:
- Emporia and Uchee soils, which are well drained; in similar landscape positions

Similar components:
- Slagle and Nansemond soils, which have less clay in the subsoil; in similar landscape positions
- Remlik soils, which are well drained; on steeper slopes
- Winton soils, which have less clay in the subsoil; on steeper slopes
- Nevarc soils, which are moderately well drained and have a perched water table; on steeper slopes
- Soils that have redder hues in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 7.5 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 24 to 36 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Clayey marine deposits

Use and Management Considerations

Cropland

Suitability: Moderately suited to wheat and grass-legume hay; poorly suited to corn and soybeans; not suited to alfalfa hay

- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.

Pastureland

Suitability: Moderately suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to loblolly pine and southern red oak

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- The stickiness of the soil restricts the use of equipment for site preparation to the drier periods.
- This soil is well suited to haul roads and log landings.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: HH
Hydric soil: No

11B—Craven clay loam, 2 to 6 percent slopes, severely eroded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads
Shape and size of areas: Elongated or irregular, 3 to 40 acres

Map Unit Composition

Craven and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 5 inches—brown clay loam

Subsoil:
5 to 18 inches—yellowish brown clay; red and strong brown masses of oxidized iron
18 to 24 inches—yellowish brown clay; strong brown and dark red masses of oxidized iron and light gray iron depletions

Substratum:
24 to 30 inches—light yellowish brown sandy clay loam; gray iron depletions and dark red masses of oxidized iron
30 to 60 inches—brownish yellow sandy loam; light gray iron depletions and reddish yellow masses of oxidized iron

Minor Components

Dissimilar components:

- Emporia and Uchee soils, which are well drained; in similar landscape positions

Similar components:

- Slagle and Nansemond soils, which have less clay in the subsoil; in similar landscape positions
- Remlik soils, which are well drained; on steeper slopes
- Winton soils, which have less clay in the subsoil; on steeper slopes
- Nevarc soils, which are moderately well drained and have a perched water table; on steeper slopes
- Soils that have redder hues in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 24 to 36 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Low
Surface fragments: None
Parent material: Clayey marine deposits

Use and Management Considerations

Cropland

Suitability: Poorly suited to corn, soybeans, wheat, and grass-legume hay; not suited to alfalfa hay

- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.
- Clods may form if the soil is tilled when wet.
- The risk of compaction increases when the soil is wet.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland

Suitability: Moderately suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to loblolly pine

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil increases the difficulty of constructing haul roads and log landings when the soil is wet.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- The stickiness of the soil restricts the use of equipment for site preparation to the drier periods.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

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

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: HH
Hydric soil: No

11C—Craven clay loam, 6 to 10 percent slopes, severely eroded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 40 acres

Map Unit Composition

Craven and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 5 inches—brown clay loam

Subsoil:
5 to 18 inches—yellowish brown clay; red and strong brown masses of oxidized iron
18 to 24 inches—yellowish brown clay; strong brown and dark red masses of oxidized iron and light gray iron depletions

Substratum:
24 to 30 inches—light yellowish brown sandy clay loam; gray iron depletions and dark red masses of oxidized iron
30 to 60 inches—brownish yellow sandy loam; light gray iron depletions and reddish yellow masses of oxidized iron

Minor Components

Dissimilar components:
- Emporia and Uchee soils, which are well drained; in similar landscape positions

Similar components:
- Slagle and Nansemond soils, which have less clay in the subsoil; in similar landscape positions
- Remlik soils, which are well drained; on steeper slopes
- Winton soils, which have less clay in the subsoil; on steeper slopes
- Nevarc soils, which are moderately well drained and have a perched water table; on steeper slopes
- Soils that have redder hues in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 24 to 36 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Clayey marine deposits

Use and Management Considerations

Cropland

Suitability: Poorly suited to corn, soybeans, wheat, and grass-legume hay; not suited to alfalfa hay

- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- The high clay content restricts the rooting depth of crops.
- Clods may form if the soil is tilled when wet.
- The risk of compaction increases when the soil is wet.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland

Suitability: Moderately suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to loblolly pine

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil increases the difficulty of constructing haul roads and log landings when the soil is wet.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- The stickiness of the soil restricts the use of equipment for site preparation to the drier periods.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.
- The high content of clay in the subsurface layer increases the difficulty of digging, filling, and compacting the soil material in shallow excavations.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: HH
Hydric soil: No

12A—Dorovan muck, 0 to 2 percent slopes, frequently flooded

Setting

Major land resource area: Atlantic Coast Flatwoods (MLRA 153A)
Landform: Flood plains and swamps along the Nottoway River
Position on the landform: Treads
Shape and size of areas: Elongated or irregular, 100 to 1,000 acres

Map Unit Composition

Dorovan and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Organic layer:
0 to 17 inches—very dark brown muck
17 to 65 inches—very dark gray muck

Substratum:
65 to 80 inches—dark gray sandy loam

Minor Components

Dissimilar components:
- Chewacla soils, which are somewhat poorly drained and have more clay throughout; in similar landscape positions
- Chastain soils, which are poorly drained and have more clay throughout; in similar landscape positions
- Buncombe and Riverview soils, which are excessively drained and well drained, respectively; on river levees and flood plains
- Tomotley and Roanoke soils, which are poorly drained; on low terraces

Similar components:
- Soils that have thin layers of sandy loam material in the control section
- Soils that are shallower to underlying mineral deposits

Soil Properties and Qualities

Available water capacity: Very high (about 13.8 inches)
Slowest saturated hydraulic conductivity: High (about 6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Very poorly drained
Depth to seasonal water saturation: About 0 inches
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: Frequent
Depth of ponding: 0.0 to 1.0 foot
Shrink-swell potential: Low
Runoff class: Negligible
Surface fragments: None
Parent material: Organic material over loamy alluvium

Use and Management Considerations

Cropland
- This soil is unsuited to cropland.

Pastureland
- This soil is unsuited to pastureland.

Woodland
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding and ponding restrict the safe use of roads by log trucks.
- Soil wetness may limit the use of log trucks.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites
- Flooding and ponding are limitations affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- Flooding and ponding are limitations affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- Flooding may damage local roads and streets.
- Ponding affects the ease of excavation and grading and limits the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7w
Virginia soil management group: PP
Hydric soil: Yes

13A—Emporia fine sandy loam, 0 to 2 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads
Shape and size of areas: Elongated or irregular, 3 to 100 acres

Map Unit Composition

Emporia and similar soils: Typically 95 percent, ranging from about 90 to 100 percent

Typical Profile

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

Subsurface layer:
12 to 17 inches—very pale brown fine sandy loam

Subsoil:
17 to 33 inches—yellowish brown clay loam
33 to 40 inches—brownish yellow sandy clay loam; strong brown and pale brown masses of oxidized iron
40 to 51 inches—brownish yellow fine sandy loam; light yellowish brown masses of oxidized iron

Substratum:
51 to 60 inches—light brownish gray clay loam; yellowish brown masses of oxidized iron
60 to 72 inches—light brownish gray fine sandy loam; yellowish brown and reddish yellow masses of oxidized iron

Minor Components

Dissimilar components:
- Kenansville soils, which have a thick, sandy surface layer and less clay in the subsoil; in similar landscape positions
- Craven soils, which are moderately well drained and have more clay in the subsoil; on footslopes and at the heads of drains
- Myatt and Bibb soils, which are poorly drained; in drainageways
- Rumford and Nansemond soils, which have less clay in the subsoil; in similar landscape positions

Similar components:
- Uchee soils, which have a thicker sandy surface layer; in similar landscape positions
- Slagle soils, which are moderately well drained; on broad upland flats, side slopes, and footslopes
- Soils that have gravel throughout; in similar landscape positions
- Soils that have more silt in the subsoil; in similar landscape positions
- Soils that have more clay in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Low (about 0.00 in/hr)
Depth class: Very deep (more than 60 inches)

Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 36 to 54 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Loamy marine deposits

Use and Management Considerations

Cropland
- This soil is well suited to soybeans, wheat, and grass-legume hay and moderately suited to corn and alfalfa hay.

Pastureland
- This soil is well suited to pastureland.

Woodland
Suitability: Moderately suited to loblolly pine and southern red oak
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 1
Virginia soil management group: R
Hydric soil: No

13B—Emporia fine sandy loam, 2 to 6 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads
Shape and size of areas: Elongated or irregular, 3 to 150 acres

Map Unit Composition

Emporia and similar soils: Typically 95 percent, ranging from about 90 to 100 percent

Typical Profile

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

Subsurface layer:
12 to 17 inches—very pale brown fine sandy loam

Subsoil:
17 to 33 inches—yellowish brown clay loam
33 to 40 inches—brownish yellow sandy clay loam; strong brown and pale brown masses of oxidized iron
40 to 51 inches—brownish yellow fine sandy loam; light yellowish brown masses of oxidized iron

Substratum:
51 to 60 inches—light brownish gray clay loam; yellowish brown masses of oxidized iron
60 to 72 inches—light brownish gray fine sandy loam; yellowish brown and reddish yellow masses of oxidized iron

Minor Components

Dissimilar components:
- Kenansville soils, which have a thick sandy surface layer and less clay in the subsoil; in similar landscape positions
- Craven soils, which are moderately well drained and have more clay in the subsoil; on footslopes and at the heads of drains
- Myatt and Bibb soils, which are poorly drained; in drainageways
- Rumford and Nansemond soils, which have less clay in the subsoil; in similar landscape positions

Similar components:
- Uchee soils, which have a thicker sandy surface layer; in similar landscape positions
- Slagle soils, which are moderately well drained; on broad upland flats, side slopes, and footslopes
- Soils that have gravel throughout the profile; in similar landscape positions
- Soils that have more silt in the subsoil; in similar landscape positions
- Soils that have more clay in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Low (about 0.00 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 36 to 54 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Loamy marine deposits

Use and Management Considerations

Cropland
Suitability: Well suited to soybeans, wheat, and grass-legume hay; moderately suited to corn and alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.

Pastureland
Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
Suitability: Moderately suited to loblolly pine and southern red oak
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: R
Hydric soil: No

13C—Emporia fine sandy loam, 6 to 10 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads
Shape and size of areas: Elongated or irregular, 3 to 75 acres

Map Unit Composition

Emporia and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

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

Subsurface layer:
12 to 17 inches—very pale brown fine sandy loam

Subsoil:
17 to 33 inches—yellowish brown clay loam
33 to 40 inches—brownish yellow sandy clay loam; strong brown and pale brown masses of oxidized iron
40 to 51 inches—brownish yellow fine sandy loam; light yellowish brown masses of oxidized iron

Substratum:
51 to 60 inches—light brownish gray clay loam; yellowish brown masses of oxidized iron
60 to 72 inches—light brownish gray fine sandy loam; yellowish brown and reddish yellow masses of oxidized iron

Minor Components

Dissimilar components:
- Kenansville soils, which have a thick sandy surface layer and less clay in the subsoil; in similar landscape positions
- Craven soils, which are moderately well drained and have more clay in the subsoil; in similar landscape positions
- Nansemond and Rumford soils, which have less clay in the subsoil; in similar landscape positions

Similar components:
- Uchee soils, which have a thick sandy surface layer; in similar landscape positions
- Slagle soils, which are moderately well drained; in similar landscape positions
- Nevarc soils, which are moderately well drained; on steeper slopes
- Remlik soils, which have a thick sandy surface layer; on steeper slopes
- Soils that have gravel throughout the profile; in similar landscape positions
- Winton soils, which are moderately well drained; on steeper slopes

Soil Properties and Qualities

Available water capacity: Moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Low (about 0.00 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 36 to 54 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Loamy marine deposits

Use and Management Considerations

Cropland

Suitability: Well suited to grass-legume hay; moderately suited to corn, soybeans, wheat, and alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.

Pastureland

Suitability: Well suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to loblolly pine and southern red oak

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- This soil is well suited to haul roads and log landings.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: R
Hydric soil: No

14A—Exum silt loam, 0 to 2 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads
Shape and size of areas: Circular to irregular, 3 to 100 acres

Map Unit Composition

Exum and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 11 inches—grayish brown silt loam

Subsoil:
11 to 24 inches—yellowish brown clay loam

24 to 45 inches—yellowish brown clay loam; gray iron depletions and yellowish red, strong brown, and pale brown masses of oxidized iron
45 to 57 inches—yellowish brown clay loam; red, yellowish red, and strong brown masses of oxidized iron and gray iron depletions
57 to 70 inches—gray clay loam; yellowish brown, yellowish red, strong brown, and red masses of oxidized iron

Minor Components

Dissimilar components:
- Myatt and Roanoke soils, which are poorly drained; in lower positions on the landscape
- Nansemond and Rumford soils, which have less clay in the subsoil; on summits, shoulders, and side slopes
- Yemasee soils, which are somewhat poorly drained; in lower positions on the landscape

Similar components:
- Slagle soils, which have less silt in the surface layer and subsoil; in similar landscape positions
- Emporia and Uchee soils, which are well drained; on summits, shoulders, and side slopes
- Craven soils, which have more clay in the subsoil; on summits, shoulders, and side slopes and at the heads of drains

Soil Properties and Qualities

Available water capacity: High (about 9.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 24 to 36 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Loamy and silty marine deposits

Use and Management Considerations

Cropland
Suitability: Well suited to soybeans, wheat, and grass-legume hay; moderately suited to corn; not suited to alfalfa hay
- The risk of compaction increases when the soil is wet.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland
- This soil is well suited to pastureland.

Woodland
Suitability: Moderately suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.

- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2w
Virginia soil management group: J
Hydric soil: No

15A—Munden loamy sand, 0 to 2 percent slopes, rarely flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 200 acres

Map Unit Composition

Munden and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 12 inches—olive brown loamy sand

Subsurface layer:
12 to 17 inches—light yellowish brown loamy sand

Subsoil:
17 to 24 inches—light olive brown sandy loam; yellowish brown masses of oxidized iron
24 to 36 inches—light yellowish brown sandy loam; yellowish brown masses of oxidized iron and gray iron depletions
36 to 65 inches—olive yellow sandy loam; brownish yellow masses of oxidized iron and gray iron depletions

Minor Components

Dissimilar components:
- Pactolus and Seabrook soils, which have sandier subsoils; on stream terraces

- Alaga soils, which are somewhat excessively drained; in higher landscape positions
- Nimmo and Tomotley soils, which are poorly drained; in drainageways
- Augusta soils, which are somewhat poorly drained; on stream terraces
- Winton soils, which have more clay in the subsoil; on steeper slopes

Similar components:
- Altavista soils, which have more clay in the subsoil; on stream terraces
- State and Bojac soils, which are well drained; in higher landscape positions

Soil Properties and Qualities

Available water capacity: Low (about 5.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 18 to 30 inches
Water table kind: Apparent
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Surface fragments: None
Parent material: Loamy and sandy marine deposits and/or alluvium

Use and Management Considerations

Cropland
Suitability: Well suited to corn, soybeans, wheat, and grass-legume hay; moderately suited to alfalfa hay
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland
- This soil is well suited to pastureland.

Woodland
Suitability: Well suited to loblolly pine; moderately suited to sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2w
Virginia soil management group: F
Hydric soil: No

15B—Munden loamy sand, 2 to 6 percent slopes, rarely flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 150 acres

Map Unit Composition

Munden and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 12 inches—olive brown loamy sand

Subsurface layer:
12 to 17 inches—light yellowish brown loamy sand

Subsoil:
17 to 24 inches—light olive brown sandy loam; yellowish brown masses of oxidized iron
24 to 36 inches—light yellowish brown sandy loam; yellowish brown masses of oxidized iron and gray iron depletions
36 to 65 inches—olive yellow sandy loam; brownish yellow masses of oxidized iron and gray iron depletions

Minor Components

Dissimilar components:
- Pactolus soils, which have sandier subsoils; on stream terraces
- Alaga soils, which are somewhat excessively drained; in higher landscape positions
- Winton soils, which have more clay in the subsoil; on steeper slopes

Similar components:
- Altavista soils, which have more clay in the subsoil; on stream terraces
- State and Bojac soils, which are well drained; in higher landscape positions

Soil Properties and Qualities

Available water capacity: Low (about 5.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 18 to 30 inches
Water table kind: Apparent
Flooding hazard: Rare

Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Surface fragments: None
Parent material: Loamy and sandy marine deposits and/or alluvium

Use and Management Considerations

Cropland
Suitability: Well suited to corn, soybeans, wheat, and grass-legume hay; moderately suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland
Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
Suitability: Well suited to loblolly pine; moderately suited to sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: F
Hydric soil: No

16A—Myatt loam, 0 to 2 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Drainageways and depressions on marine terraces

Position on the landform: Dips and treads
Shape and size of areas: Elongated or irregular, 3 to 50 acres

Map Unit Composition

Myatt and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

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

Subsurface layer:
5 to 12 inches—light brownish gray sandy loam; olive yellow and light yellowish brown masses of oxidized iron

Subsoil:
12 to 19 inches—gray sandy loam; strong brown and light yellowish brown masses of oxidized iron
19 to 27 inches—gray sandy clay loam; olive yellow and yellowish brown masses of oxidized iron
27 to 39 inches—gray sandy clay loam; strong brown, brownish yellow, and yellowish red masses of oxidized iron
39 to 52 inches—gray sandy clay loam; brownish yellow and strong brown masses of oxidized iron

Substratum:
52 to 58 inches—gray sandy clay loam; brownish yellow and strong brown masses of oxidized iron
58 to 80 inches—gray sandy loam; yellow masses of oxidized iron

Minor Components

Dissimilar components:
- Bibb soils, which have more sand less clay in the subsoil; in similar landscape positions
- Nansemond and Slagle soils, which are moderately well drained; in higher landscape positions
- Roanoke soils, which have more clay in the subsoil; in lower terrace positions
- Rumford and Emporia soils, which are well drained; in higher landscape positions
- Craven soils, which are moderately well drained and have more clay and silt in the subsoil; in higher landscape positions

Similar components:
- Yemassee soils, which are somewhat poorly drained; in higher landscape positions

Soil Properties and Qualities

Available water capacity: High (about 9.9 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Poorly drained
Depth to seasonal water saturation: About 0 to 12 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very high

Surface fragments: None
Parent material: Loamy marine deposits

Use and Management Considerations

Cropland
Suitability: Poorly suited to corn, soybeans, wheat, and grass-legume hay; not suited to alfalfa hay
- The seasonal high water table restricts equipment operation, decreases the viability of crops, and interferes with the planting and harvesting of crops.

Pastureland
Suitability: Poorly suited to pasture
- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland
Suitability: Well suited to loblolly pine; moderately suited to sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Soil wetness may limit the use of log trucks.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Prime farmland if drained
Land capability class: 4w
Virginia soil management group: OO
Hydric soil: Yes

17A—Nansemond loamy fine sand, 0 to 2 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces and stream terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 40 acres

Map Unit Composition

Nansemond and similar soils: Typically 85 percent, ranging from about 75 to 95 percent

Typical Profile

Organic layer:
0 to 1 inch—undecomposed hardwood leaf litter

Surface layer:
1 to 3 inches—brown loamy fine sand

Subsurface layer:
3 to 10 inches—dark grayish brown loamy fine sand

Subsoil:
10 to 26 inches—light olive brown fine sandy loam
26 to 37 inches—yellowish brown fine sandy loam; light gray iron depletions and strong brown masses of oxidized iron
37 to 56 inches—light yellowish brown sandy loam; light gray iron depletions

Substratum:
56 to 65 inches—light brown loamy fine sand; brown iron depletions

Minor Components

Dissimilar components:
- Alaga soils, which are somewhat excessively drained; in slightly higher landscape positions
- Uchee soils, which have a thicker sandy surface layer; in similar landscape positions
- Yemassee soils, which are somewhat poorly drained; on stream terraces
- Emporia soils, which are well drained and have more clay in the subsoil; in similar landscape positions

Similar components:
- Slagle soils, which have more clay in the subsoil; in similar landscape positions
- Rumford and Kenansville soils, which are well drained; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 7.0 inches)
Slowest saturated hydraulic conductivity: High (about 2 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 18 to 30 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Surface fragments: None
Parent material: Loamy and sandy marine deposits and/or alluvium

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, and grass-legume hay; moderately suited to alfalfa hay
- Excessive permeability increases the risk of ground-water contamination.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland
- This soil is well suited to pastureland.

Woodland
Suitability: Well suited to loblolly pine; moderately suited to yellow-poplar and sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2w
Virginia soil management group: F
Hydric soil: No

17B—Nansemond loamy fine sand, 2 to 6 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces and stream terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 70 acres

Map Unit Composition

Nansemond and similar soils: Typically 85 percent, ranging from about 75 to 95 percent

Typical Profile

Organic layer:
0 to 1 inch—undecomposed hardwood leaf litter

Surface layer:
1 to 3 inches—brown loamy fine sand

Subsurface layer:
3 to 10 inches—dark grayish brown loamy fine sand

Subsoil:
10 to 26 inches—light olive brown fine sandy loam
26 to 37 inches—yellowish brown fine sandy loam; light gray iron depletions and strong brown masses of oxidized iron
37 to 56 inches—light yellowish brown sandy loam; light gray iron depletions

Substratum:
56 to 65 inches—light brown loamy fine sand; brown iron depletions

Minor Components

Dissimilar components:
- Alaga soils, which are somewhat excessively drained; in slightly higher landscape positions
- Uchee soils, which have a thicker sandy surface layer; in similar landscape positions
- Emporia soils, which are well drained and have more clay in the subsoil; in similar landscape positions

Similar components:
- Slagle soils, which have more clay in the subsoil; in similar landscape positions
- Rumford and Kenansville soils, which are well drained; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 7.0 inches)
Slowest saturated hydraulic conductivity: High (about 2 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 18 to 30 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Surface fragments: None
Parent material: Loamy and sandy marine deposits and/or alluvium

Use and Management Considerations

Cropland

Suitability: Well suited to corn, soybeans, wheat, and grass-legume hay; moderately suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- Excessive permeability increases the risk of ground-water contamination.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland

Suitability: Well suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Well suited to loblolly pine; moderately suited to yellow-poplar and sweetgum

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets

- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: F
Hydric soil: No

18F—Nevarc and Remlik soils, 15 to 65 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Scarps and other steep slopes on marine terraces
Position on the landform: Moderately steep to very steep risers
Shape and size of areas: Elongated or irregular, 5 to 70 acres

Map Unit Composition

Nevarc and similar soils: Typically 45 percent, ranging from about 45 to 50 percent
Remlik and similar soils: Typically 35 percent, ranging from about 25 to 45 percent

Typical Profile

Nevarc

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

Subsurface layer:
2 to 4 inches—pale brown loam

Subsoil:
4 to 24 inches—yellowish brown clay loam; light gray iron depletions and strong brown masses of oxidized iron
24 to 36 inches—yellowish brown and strong brown sandy clay loam; gray iron depletions
36 to 50 inches—gray sandy clay loam; yellowish brown masses of oxidized iron

Substratum:
50 to 67 inches—brownish yellow fine sandy loam; light gray iron depletions and strong brown masses of oxidized iron
67 to 74 inches—light gray fine sandy loam; light yellowish brown masses of oxidized iron

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

Subsurface layer:
4 to 35 inches—light yellowish brown loamy sand

Subsoil:
35 to 49 inches—light brown sandy loam
49 to 66 inches—yellowish brown sandy loam; strong brown masses of oxidized iron and light gray iron depletions

Minor Components

Dissimilar components:
- Emporia soils, which are well drained and have less clay than the Nevarc soil; in smoother landscape positions
- Rumford soils, which are well drained, have less clay than the Nevarc soil, and have a sandy surface layer that is thinner than that of the Remlik soil; in smoother landscape positions
- Uchee soils, which are well drained and have less clay than the Nevarc soil; in smoother landscape positions
- Winton soils, which are moderately well drained, have less clay than the Nevarc soil, and have a sandy surface layer that is thinner than that of the Remlik soil; in similar landscape positions
- Nansemond soils, which are moderately well drained, have less clay than the Nevarc soil, and have a sandy surface layer that is thinner than that of the Remlik soil; in smoother landscape positions

Similar components:
- Soils that have less clay in the subsoil; in similar landscape positions
- Slagle soils, which are moderately well drained; in smoother landscape positions
- Craven soils, which are moderately well drained; in smoother landscape positions

Soil Properties and Qualities

Available water capacity: Nevarc—moderate (about 7.1 inches); Remlik—low (about 5.3 inches)
Slowest saturated hydraulic conductivity: Nevarc—moderately low (about 0.06 in/hr); Remlik—moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Nevarc—moderately well drained; Remlik—well drained

Depth to seasonal water saturation: Nevarc—about 18 to 36 inches; Remlik—about 48 to 72 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Nevarc—moderate; Remlik—low
Runoff class: Nevarc—very high; Remlik—medium
Surface fragments: None
Parent material: Nevarc—loamy alluvium and/or loamy marine deposits; Remlik—loamy and sandy alluvium and/or loamy and sandy marine deposits

Use and Management Considerations

Cropland
- These soils are unsuited to cropland.

Pastureland
- These soils are unsuited to pastureland.

Woodland
Suitability: Moderately suited to loblolly pine, southern red oak, yellow-poplar, and sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: Nevarc—HH; Remlik—DD
Hydric soils: No

19A—Nimmo sandy loam, 0 to 2 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Position on the landform: Treads
Shape and size of areas: Elongated or irregular, 3 to 50 acres

Map Unit Composition

Nimmo and similar soils: Typically 80 percent, ranging from about 70 to 90 percent

Typical Profile

Surface layer:
0 to 4 inches—black sandy loam

Subsurface layer:
4 to 10 inches—dark gray sandy loam; yellowish brown masses of oxidized iron
10 to 14 inches—dark gray sandy loam

Subsoil:
14 to 32 inches—gray fine sandy loam

Substratum:
32 to 40 inches—gray sand; yellowish brown masses of oxidized iron
40 to 64 inches—gray coarse sand

Minor Components

Dissimilar components:
- Roanoke soils, which have more clay in the subsoil and are susceptible to flooding; in similar landscape positions
- Soils that have a sandier subsoil; in similar landscape positions
- Munden soils, which are moderately well drained; on river terraces
- Bojac and State soils, which are well drained; in higher landscape positions
- Tarboro soils, which are somewhat excessively drained; in higher landscape positions

Similar components:
- Soils that have a thicker sandy surface layer; in similar landscape positions
- Tomotley soils, which have more clay in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Low (about 5.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Poorly drained
Depth to seasonal water saturation: About 0 to 12 inches

Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very high
Surface fragments: None
Parent material: Sandy alluvium and/or loamy alluvium

Use and Management Considerations

Cropland
Suitability: Well suited to corn, soybeans, wheat, and grass-legume hay; not suited to alfalfa hay
- The seasonal high water table restricts equipment operation, decreases the viability of crops, and interferes with the planting and harvesting of crops.

Pastureland
Suitability: Moderately suited to pasture
- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland
Suitability: Well suited to loblolly pine and southern red oak; moderately suited to sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Soil wetness may limit the use of log trucks.
- This soil is well suited to haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Prime farmland if drained
Land capability class: 4w
Virginia soil management group: E
Hydric soil: Yes

20B—Ocilla loamy sand, 0 to 6 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)

Landform: Depressions and drainageways on marine terraces
Position on the landform: Head slopes, base slopes, and treads
Shape and size of areas: Irregular, 3 to 35 acres

Map Unit Composition

Ocilla and similar soils: Typically 90 percent, ranging from about 80 to 95 percent

Typical Profile

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

Subsurface layer:
4 to 30 inches—pale yellow loamy sand; gray iron depletions

Subsoil:
30 to 34 inches—yellowish brown sandy loam; light yellowish brown masses of oxidized iron and gray iron depletions
34 to 42 inches—yellowish brown sandy loam; light yellowish brown masses of oxidized iron and gray iron depletions
42 to 50 inches—light yellowish brown sandy loam; strong brown masses of oxidized iron and gray iron depletions

Substratum:
50 to 58 inches—yellowish brown sandy loam; gray iron depletions
58 to 65 inches—yellowish brown, yellow, and strong brown sandy loam; gray iron depletions

Minor Components

Dissimilar components:
- Emporia soils, which are well drained and have a thinner sandy surface layer; on summits, shoulders, and backslopes
- Rumford soils, which are well drained, have a thinner sandy surface layer, and have less clay in the subsoil; on summits and shoulders
- Slagle soils, which are moderately well drained and have a thinner sandy surface layer; on summits, shoulders, and broad upland flats
- Pactolus soils, which are moderately well drained and have more sand in the subsoil; on stream terraces
- Uchee soils, which are well drained; on summits and shoulders

Similar components:
- Nansemond soils, which have thinner surface layers and less clay in the subsoil; in similar landscape positions and on shoulders

Soil Properties and Qualities

Available water capacity: Moderate (about 6.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Somewhat poorly drained
Depth to seasonal water saturation: About 12 to 30 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low

Runoff class: Low
Surface fragments: None
Parent material: Loamy and sandy marine deposits

Use and Management Considerations

Cropland
Suitability: Well suited to wheat and grass-legume hay; moderately suited to corn; poorly suited to soybeans; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- Excessive permeability increases the risk of ground-water contamination.
- Sandy or coarse textured layers accelerate the rate at which plant nutrients are leached.
- The seasonal high water table restricts equipment operation, decreases the viability of crops, and interferes with the planting and harvesting of crops.

Pastureland
Suitability: Moderately suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland
Suitability: Moderately suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4w
Virginia soil management group: DD
Hydric soil: No

20C—Ocilla loamy sand, 6 to 10 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Drainageways and uplands on marine terraces
Position on the landform: Head slopes, base slopes, and risers
Shape and size of areas: Irregular, 5 to 35 acres

Map Unit Composition

Ocilla and similar soils: Typically 65 percent, ranging from about 60 to 70 percent

Typical Profile

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

Subsurface layer:
4 to 30 inches—pale yellow loamy sand; gray iron depletions

Subsoil:
30 to 34 inches—yellowish brown sandy loam; light yellowish brown masses of oxidized iron and gray iron depletions
34 to 42 inches—yellowish brown sandy loam; light yellowish brown masses of oxidized iron and gray iron depletions
42 to 50 inches—light yellowish brown sandy loam; strong brown masses of oxidized iron and gray iron depletions

Substratum:
50 to 58 inches—yellowish brown sandy loam; gray iron depletions
58 to 65 inches—yellowish brown, yellow, and strong brown sandy loam; gray iron depletions

Minor Components

Dissimilar components:
- Emporia soils, which are well drained and have a thinner sandy surface layer; on summits, shoulders, and backslopes
- Rumford soils, which are well drained, have a thinner sandy surface layer, and have less clay in the subsoil; on summits and shoulders
- Slagle soils, which are moderately well drained and have a thinner sandy surface layer; on summits, shoulders, and broad upland flats
- Pactolus soils, which are moderately well drained and have more sand in the subsoil; on stream terraces
- Uchee soils, which are well drained; on summits and shoulders

Similar components:
- Nansemond soils, which have thinner surface layers and less clay in the subsoil; in similar landscape positions and on shoulders

Soil Properties and Qualities

Available water capacity: Moderate (about 6.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Somewhat poorly drained
Depth to seasonal water saturation: About 12 to 30 inches

Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Surface fragments: None
Parent material: Loamy and sandy marine deposits

Use and Management Considerations

Cropland
Suitability: Moderately suited to wheat and grass-legume hay; poorly suited to corn and soybeans; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- Excessive permeability increases the risk of ground-water contamination.
- Sandy or coarse textured layers accelerate the rate at which plant nutrients are leached.
- The seasonal high water table restricts equipment operation, decreases the viability of crops, and interferes with the planting and harvesting of crops.

Pastureland
Suitability: Moderately suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland
Suitability: Moderately suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4w
Virginia soil management group: DD
Hydric soil: No

21A—Pactolus loamy fine sand, 0 to 2 percent slopes, rarely flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Drainageways and slight depressions on stream terraces along the Blackwater River
Position on the landform: Treads and base slopes
Shape and size of areas: Elongated or irregular, 3 to 30 acres

Map Unit Composition

Pactolus and similar soils: Typically 80 percent, ranging from about 65 to 90 percent

Typical Profile

Surface layer:
0 to 14 inches—brown loamy fine sand

Substratum:
14 to 24 inches—light olive brown loamy sand
24 to 32 inches—light yellowish brown loamy sand; very pale brown masses of oxidized iron
32 to 52 inches—pale yellow loamy sand; light gray iron depletions
52 to 60 inches—olive yellow sand; yellow masses of oxidized iron and light gray iron depletions
60 to 84 inches—light yellowish brown sand; yellowish brown masses of oxidized iron and light gray iron depletions

Minor Components

Dissimilar components:

- Munden soils, which have more clay and less sand; on stream terraces
- Rumford, Kenansville and Uchee soils, which are well drained; on summits, shoulders, and backslopes
- Nansemond soils, which have more clay in the subsoil; in slight depressions and at the heads of drains

Similar components:

- Alaga soils, which are somewhat excessively drained; on narrow summits and shoulders
- Soils that have lamellae in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Low (about 3.4 inches)
Slowest saturated hydraulic conductivity: High (about 6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 18 to 36 inches
Water table kind: Apparent
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Surface fragments: None
Parent material: Sandy alluvium

Use and Management Considerations

Cropland
Suitability: Moderately suited to corn and wheat; poorly suited to soybeans and grass-legume hay; not suited to alfalfa hay
- The limited available water capacity may cause plants to suffer from moisture stress.
- Excessive permeability increases the risk of ground-water contamination.
- Sandy or coarse textured layers accelerate the rate at which plant nutrients are leached.

Pastureland
Suitability: Poorly suited to pasture
- The limited available water capacity may cause plants to suffer from moisture stress during the drier summer months.

Woodland
Suitability: Well suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4s

Virginia soil management group: EE
Hydric soil: No

22A—Riverview sandy loam, 0 to 2 percent slopes, frequently flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Flood plains along the Nottoway and Meherrin Rivers
Position on the landform: Treads
Shape and size of areas: Elongated or irregular, 3 to 100 acres

Map Unit Composition

Riverview and similar soils: Typically 75 percent, ranging from about 65 to 85 percent

Typical Profile

Surface layer:
0 to 10 inches—brown sandy loam
10 to 16 inches—brown sandy loam

Subsoil:
16 to 37 inches—strong brown clay loam
37 to 56 inches—strong brown and yellowish brown sandy loam; strong brown masses of oxidized iron and light brownish gray iron depletions

Substratum:
56 to 67 inches—yellowish brown sandy loam; strong brown masses of oxidized iron and light brownish gray iron depletions
67 to 84 inches—yellowish brown sandy loam; light brownish gray iron depletions and strong brown masses of oxidized iron

Minor Components

Dissimilar components:
- Chewacla soils, which are somewhat poorly drained; in similar landscape positions
- Chastain soils, which are poorly drained; in similar landscape positions
- Buncombe soils, which are excessively drained and have more sand in the subsoil; on river levees

Similar components:
- Soils that have gravel throughout; in similar landscape positions
- Soils that have less clay in the subsoil; in similar landscape positions
- Soils that have redder hues; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 36 to 60 inches
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: None

Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Loamy alluvium

Use and Management Considerations

Cropland
Suitability: Well suited to corn, soybeans, wheat, and grass-legume hay; moderately suited to alfalfa hay
- Frequent flooding restricts the use of winter grain crops.
- Flooding may damage crops.

Pastureland
Suitability: Well suited to pasture
- Flooding may damage pastures.

Woodland
Suitability: Well suited to loblolly pine, yellow-poplar, and sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding restricts the safe use of roads by log trucks.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- Flooding is a limitation affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- Flooding may damage local roads and streets.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 2w
Virginia soil management group: G
Hydric soil: No

23A—Roanoke loam, 0 to 2 percent slopes, occasionally flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Flood plains and low stream terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 50 acres

Map Unit Composition

Roanoke and similar soils: Typically 95 percent, ranging from about 90 to 100 percent

Typical Profile

Organic layer:
0 to 1 inch—slightly decomposed plant material

Surface layer:
1 to 3 inches—very dark gray loam

Subsurface layer:
3 to 9 inches—olive gray loam; olive yellow masses of oxidized iron

Subsoil:
9 to 18 inches—gray clay; yellowish red masses of oxidized iron
18 to 40 inches—gray clay; red masses of oxidized iron
40 to 50 inches—gray and greenish gray clay; red masses of oxidized iron

Substratum:
50 to 72 inches—light olive gray clay loam; yellowish red masses of oxidized iron

Minor Components

Dissimilar components:
- Augusta and Yemassee soils, which have less clay in the subsoil and are somewhat poorly drained; on stream terraces
- Chastain soils, which are more susceptible to flooding; in similar landscape positions
- Dorovan soils, which have thick organic layers; on flood plains

Similar components:
- Tomotley and Myatt soils, which have less clay in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 8.6 inches)
Slowest saturated hydraulic conductivity: Low (about 0.00 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Poorly drained
Depth to seasonal water saturation: About 0 to 12 inches
Water table kind: Apparent
Flooding hazard: Occasional
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Very high
Surface fragments: None
Parent material: Clayey or loamy alluvium

Use and Management Considerations

Cropland

Suitability: Poorly suited to corn, soybeans, and wheat; not suited to grass-legume hay and alfalfa hay
- The high clay content restricts the rooting depth of crops.
- Flooding may damage crops.
- The seasonal high water table restricts equipment operation, decreases the viability of crops, and interferes with the planting and harvesting of crops.

Pastureland

Suitability: Poorly suited to pasture
- Flooding may damage pastures.
- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland

Suitability: Well suited to loblolly pine; moderately suited to sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should focus on streamside management zones and stream crossings and should include general adherence to all applicable best management practices.
- Flooding may damage haul roads.
- Flooding restricts the safe use of roads by log trucks.
- Soil wetness may limit the use of log trucks.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.
- The stickiness of the soil reduces the efficiency of mechanical planting equipment.
- The stickiness of the soil restricts the use of equipment for site preparation to the drier periods.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- Flooding is a limitation affecting septic tank absorption fields.
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- Flooding may damage local roads and streets.
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength is unfavorable for supporting heavy loads.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4w
Virginia soil management group: NN
Hydric soil: Yes

24B—Rumford, Kenansville, and Uchee soils, 0 to 6 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces along the Blackwater River and marine terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 30 acres

Map Unit Composition

Rumford and similar soils: Typically 45 percent, ranging from about 35 to 55 percent
Kenansville and similar soils: Typically 35 percent, ranging from about 25 to 45 percent
Uchee and similar soils: Typically 15 percent, ranging from about 5 to 20 percent

Typical Profile

Rumford
Surface layer:
0 to 11 inches—yellowish brown loamy sand

Subsoil:
11 to 25 inches—dark yellowish brown fine sandy loam
25 to 46 inches—yellowish brown fine sandy loam
46 to 55 inches—yellowish brown loamy sand

Substratum:
55 to 70 inches—yellowish brown sand

Kenansville
Surface layer:
0 to 12 inches—olive brown loamy sand

Subsurface layer:
12 to 22 inches—pale yellow and light yellowish brown loamy sand

Subsoil:
22 to 39 inches—yellowish brown sandy loam

Substratum:
39 to 45 inches—yellow and olive yellow loamy sand
45 to 70 inches—olive yellow and brownish yellow loamy sand; strong brown masses of oxidized iron
70 to 82 inches—olive yellow and yellowish brown loamy sand; strong brown masses of oxidized iron and light gray iron depletions

Uchee
Surface layer:
0 to 6 inches—dark grayish brown loamy sand

Subsurface layer:
6 to 24 inches—light yellowish brown loamy sand

Subsoil:
24 to 35 inches—brownish yellow sandy loam
35 to 45 inches—yellowish brown sandy loam
45 to 50 inches—yellowish brown sandy clay loam; yellowish red masses of oxidized iron
50 to 65 inches—yellowish brown sandy clay loam; light gray iron depletions and yellowish red masses of oxidized iron

Minor Components

Dissimilar components:
- Alaga soils, which are somewhat excessively drained and have more sand in the subsoil; in similar landscape positions
- Emporia and Uchee soils, which have more clay in the subsoil; in similar landscape positions

- Slagle soils, which are moderately well drained and have more clay in the subsoil; on footslopes, in depressions, and on broad flats
- Myatt soils, which are poorly drained; in drainageways
- Nevarc and Winton soils, which are moderately well drained; on steeper slopes

Similar components:
- Nansemond soils, which are moderately well drained; on footslopes, in depressions, and in drainageways
- Soils that have a thick, sandy surface layer; in similar landscape positions
- Soils that have gravel throughout; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Rumford and Uchee—moderate (about 6.4 inches); Kenansville—low (about 3.9 inches)
Slowest saturated hydraulic conductivity: Rumford—high (about 2 in/hr); Kenansville—moderately high (about 0.6 in/hr); Uchee—moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: Rumford—more than 6 feet; Kenansville—about 48 to 72 inches; Uchee—about 42 to 60 inches
Water table kind: Rumford—not applicable; Kenansville—apparent; Uchee—perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Rumford and Kenansville—low; Uchee—moderate
Runoff class: Rumford and Kenansville—very low; Uchee—low
Surface fragments: None
Parent material: Loamy and sandy marine deposits and/or alluvium

Use and Management Considerations

Cropland
Suitability: Well suited to wheat and grass-legume hay; moderately suited to corn; poorly suited to soybeans; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland
Suitability: Moderately suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
Suitability: Moderately suited to loblolly pine and southern red oak
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: Rumford—2s; Kenansville and Uchee—3s
Virginia soil management group: DD
Hydric soils: No

24C—Rumford, Kenansville, and Uchee soils, 6 to 10 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces along the Blackwater River and marine terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 40 acres

Map Unit Composition

Rumford and similar soils: Typically 45 percent, ranging from about 35 to 55 percent
Kenansville and similar soils: Typically 35 percent, ranging from about 25 to 45 percent
Uchee and similar soils: Typically 15 percent, ranging from about 5 to 20 percent

Typical Profile

Rumford
Surface layer:
0 to 11 inches—yellowish brown loamy sand

Subsoil:
11 to 25 inches—dark yellowish brown fine sandy loam
25 to 38 inches—yellowish brown fine sandy loam
38 to 46 inches—yellowish brown fine sandy loam
46 to 55 inches—yellowish brown loamy sand

Substratum:
55 to 70 inches—yellowish brown sand

Kenansville
Surface layer:
0 to 12 inches—olive brown loamy sand

Subsurface layer:
12 to 22 inches—pale yellow and light yellowish brown loamy sand

Subsoil:
22 to 39 inches—yellowish brown sandy loam

Substratum:
39 to 45 inches—yellow and olive yellow loamy sand
45 to 70 inches—olive yellow and brownish yellow loamy sand; strong brown masses of oxidized iron
70 to 82 inches—olive yellow and yellowish brown loamy sand; strong brown masses of oxidized iron and light gray iron depletions

Uchee
Surface layer:
0 to 6 inches—dark grayish brown loamy sand

Subsurface layer:
6 to 24 inches—light yellowish brown loamy sand

Subsoil:
24 to 35 inches—brownish yellow sandy loam
35 to 45 inches—yellowish brown sandy loam
45 to 50 inches—yellowish brown sandy clay loam; yellowish red masses of oxidized iron
50 to 65 inches—yellowish brown sandy clay loam; light gray iron depletions and yellowish red masses of oxidized iron

Minor Components

Dissimilar components:
- Alaga soils, which are somewhat excessively drained and have more sand in the subsoil; in similar landscape positions
- Emporia and Uchee soils, which have more clay in the subsoil; in similar landscape positions
- Slagle soils, which are moderately well drained and have more clay in the subsoil; on footslopes, in depressions, and on broad flats
- Myatt soils, which are poorly drained; in drainageways
- Nevarc and Winton soils, which are moderately well drained; on steeper slopes

Similar components:
- Nansemond soils, which are moderately well drained; on footslopes, in depressions, and in drainageways
- Soils that have a thick, sandy surface layer; in similar landscape positions
- Soils that have gravel throughout; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Rumford and Uchee—moderate (about 6.4 inches); Kenansville—low (about 3.9 inches)
Slowest saturated hydraulic conductivity: Rumford—high (about 2 in/hr); Kenansville—moderately high (about 0.6 in/hr); Uchee—moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: Rumford—more than 6 feet; Kenansville—about 48 to 72 inches; Uchee—about 42 to 60 inches
Water table kind: Rumford—not applicable; Kenansville—apparent; Uchee—perched

Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Rumford and Kenansville—low; Uchee—moderate
Runoff class: Rumford and Kenansville—low; Uchee—medium
Surface fragments: None
Parent material: Loamy and sandy marine deposits and/or alluvium

Use and Management Considerations

Cropland

Suitability: Moderately suited to wheat and grass-legume hay; poorly suited to corn and soybeans; not suited to alfalfa hay

- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland

Suitability: Moderately suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to loblolly pine and southern red oak

- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets

- Because of shrinking and swelling, the use of these soils as base material for local roads and streets is restricted.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: Rumford—3e; Kenansville and Uchee—4s
Virginia soil management group: DD
Hydric soils: No

25A—Seabrook loamy sand, 0 to 2 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Low stream terraces along the Nottoway and Meherrin Rivers
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 30 acres

Map Unit Composition

Seabrook and similar soils: Typically 80 percent, ranging from about 70 to 90 percent

Typical Profile

Surface layer:
0 to 3 inches—very dark grayish brown loamy sand
3 to 8 inches—brown loamy sand

Substratum:
8 to 25 inches—brownish yellow loamy fine sand
25 to 32 inches—light yellowish brown loamy fine sand; light gray iron depletions and brownish yellow masses of oxidized iron
32 to 60 inches—light gray fine sand; brownish yellow masses of oxidized iron

Minor Components

Dissimilar components:
- Tarboro and Bojac soils, which are somewhat excessively drained and well drained, respectively; on narrow ridge summits and shoulders
- Altavista and Munden soils, which have more clay and less sand in the subsoil; in similar landscape positions
- Augusta soils, which are somewhat poorly drained; in depressions and drainageways

Similar components:
- Soils that have lamellae in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Low (about 3.2 inches)
Slowest saturated hydraulic conductivity: High (about 6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 24 to 42 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low

Surface fragments: None
Parent material: Sandy alluvium

Use and Management Considerations

Cropland
Suitability: Moderately suited to corn and wheat; poorly suited to soybeans and grass-legume hay; not suited to alfalfa hay
- The limited available water capacity may cause plants to suffer from moisture stress.
- Excessive permeability increases the risk of ground-water contamination.
- Sandy or coarse textured layers accelerate the rate at which plant nutrients are leached.

Pastureland
Suitability: Poorly suited to pasture
- The limited available water capacity may cause plants to suffer from moisture stress during the drier summer months.

Woodland
Suitability: Moderately suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3s
Virginia soil management group: EE
Hydric soil: No

26A—Slagle fine sandy loam, 0 to 2 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)

Landform: Marine terraces
Position on the landform: Interfluves, head slopes, base slopes, side slopes, treads, and risers
Shape and size of areas: Irregular, 5 to 125 acres

Map Unit Composition

Slagle and similar soils: Typically 85 percent, ranging from about 85 to 90 percent

Typical Profile

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

Subsurface layer:
12 to 15 inches—very pale brown fine sandy loam

Subsoil:
15 to 24 inches—brownish yellow sandy clay loam
24 to 34 inches—brownish yellow sandy clay loam; light gray iron depletions
34 to 50 inches—reddish yellow, yellow, and light gray sandy clay loam
50 to 72 inches—yellow, reddish yellow, and light gray sandy loam

Minor Components

Dissimilar components:
- Myatt soils, which are poorly drained; in depressions and drainageways
- Kenansville and Uchee soils, which are well drained and have a thicker sandy surface layer; in slightly higher landscape positions
- Ocilla soils, which are somewhat poorly drained and have a thicker sandy surface layer; in similar landscape positions
- Nansemond and Rumford soils, which have less clay in the subsoil; in similar landscape positions

Similar components:
- Emporia soils, which are well drained; in slightly higher landscape positions
- Craven soils, which have more clay in the subsoil; in similar landscape positions
- Yemassee and Augusta soils, which are somewhat poorly drained; in lower landscape positions
- Nevarc soils, which have more clay in the subsoil; in steeper landscape positions
- Winton soils, which are moderately well drained; on steeper slopes

Soil Properties and Qualities

Available water capacity: Moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 18 to 36 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Low
Surface fragments: None
Parent material: Loamy marine deposits

Use and Management Considerations

Cropland
- This soil is well suited to corn, soybeans, wheat, and grass-legume hay and not suited to alfalfa hay.

Pastureland
- This soil is well suited to pastureland.

Woodland
Suitability: Well suited to loblolly pine; moderately suited to southern red oak, yellow-poplar, and sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength may cause structural damage to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2w
Virginia soil management group: K
Hydric soil: No

26B—Slagle fine sandy loam, 2 to 6 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Interfluves (fig. 2), head slopes, base slopes, side slopes, treads, and risers
Shape and size of areas: Irregular, 5 to 125 acres

Map Unit Composition

Slagle and similar soils: Typically 85 percent, ranging from about 85 to 90 percent

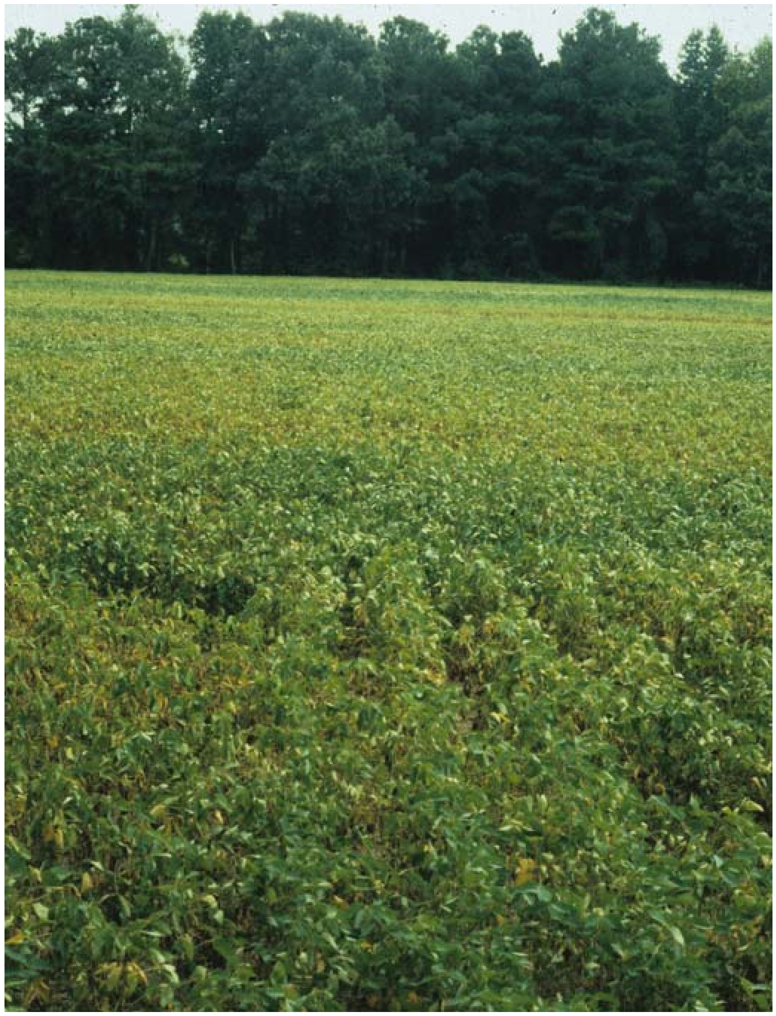

Figure 2.—A cropped area of Slagle fine sandy loam, 2 to 6 percent slopes, on an interfluve.

Typical Profile

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

Subsurface layer:
12 to 15 inches—very pale brown fine sandy loam

Subsoil:
15 to 24 inches—brownish yellow sandy clay loam
24 to 34 inches—brownish yellow sandy clay loam; light gray iron depletions
34 to 50 inches—reddish yellow, yellow, and light gray sandy clay loam
50 to 72 inches—yellow, reddish yellow, and light gray sandy loam

Minor Components

Dissimilar components:
- Myatt soils, which are poorly drained; in depressions and drainageways
- Kenansville and Uchee soils, which are well drained and have a thicker sandy surface layer; in slightly higher landscape positions

- Ocilla soils, which are somewhat poorly drained and have a thicker sandy surface layer; in similar landscape positions
- Nansemond and Rumford soils, which have less clay in the subsoil; in similar landscape positions

Similar components:
- Emporia soils, which are well drained; in the slightly higher landscape positions
- Craven soils, which have more clay in the subsoil; in similar landscape positions
- Yemassee and Augusta soils, which are somewhat poorly drained; in lower landscape positions
- Nevarc soils, which have more clay in the subsoil; in steeper landscape positions
- Winton soils, which are moderately well drained; on steeper slopes

Soil Properties and Qualities

Available water capacity: Moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 18 to 36 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Low
Surface fragments: None
Parent material: Loamy marine deposits

Use and Management Considerations

Cropland
Suitability: Well suited to corn, soybeans, wheat, and grass-legume hay; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.

Pastureland
Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
Suitability: Well suited to loblolly pine; moderately suited to southern red oak, yellow-poplar, and sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

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

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength may cause structural damage to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: K
Hydric soil: No

26C—Slagle fine sandy loam, 6 to 10 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Head slopes, base slopes, and risers
Shape and size of areas: Irregular, 5 to 125 acres

Map Unit Composition

Slagle and similar soils: Typically 80 percent, ranging from about 70 to 90 percent

Typical Profile

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

Subsurface layer:
12 to 15 inches—very pale brown fine sandy loam

Subsoil:
15 to 24 inches—brownish yellow sandy clay loam
24 to 34 inches—brownish yellow sandy clay loam; light gray iron depletions
34 to 50 inches—reddish yellow, yellow, and light gray sandy clay loam
50 to 72 inches—yellow, reddish yellow, and light gray sandy loam

Minor Components

Dissimilar components:
- Myatt soils, which are poorly drained; in depressions and drainageways
- Kenansville and Uchee soils, which are well drained and have a thicker sandy surface layer; in similar landscape positions
- Ocilla soils, which are somewhat poorly drained and have a thicker sandy surface layer; in similar landscape positions
- Nansemond and Rumford soils, which have less clay in the subsoil; in similar landscape positions

Similar components:
- Emporia soils, which are well drained; in similar landscape positions
- Craven soils, which have more clay in the subsoil; in similar landscape positions

- Nevarc soils, which have more clay in the subsoil; in steeper landscape positions
- Winton soils, which are moderately well drained; on steeper slopes

Soil Properties and Qualities

Available water capacity: Moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 18 to 36 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Loamy marine deposits

Use and Management Considerations

Cropland
Suitability: Well suited to wheat and grass-legume hay; moderately suited to corn and soybeans; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.

Pastureland
Suitability: Well suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
Suitability: Well suited to loblolly pine; moderately suited to southern red oak, yellow-poplar, and sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- This soil is well suited to haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The restricted permeability limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

- Because of shrinking and swelling, the use of this soil as base material for local roads and streets is restricted.
- The low strength may cause structural damage to local roads and streets.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Virginia soil management group: K
Hydric soil: No

27A—State fine sandy loam, 0 to 2 percent slopes, very rarely flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 100 acres

Map Unit Composition

State and similar soils: Typically 95 percent, ranging from about 90 to 100 percent

Typical Profile

Surface layer:
0 to 10 inches—brown fine sandy loam

Subsoil:
10 to 14 inches—yellowish brown sandy clay loam
14 to 40 inches—strong brown sandy clay loam
40 to 50 inches—strong brown sandy clay loam; reddish yellow masses of oxidized iron
50 to 56 inches—brownish yellow and yellowish brown sandy clay loam

Substratum:
56 to 64 inches—yellowish brown and brownish yellow sandy loam
64 to 84 inches—yellow sand

Minor Components

Dissimilar components:
- Tarboro soils, which have more sand in the subsoil; in similar landscape positions
- Augusta soils, which are somewhat poorly drained; on stream terraces

Similar components:
- Soils that have redder subsoils; in similar landscape positions
- Bojac soils, which have more sand and less clay in the subsoil; in similar landscape positions
- Altavista soils, which are moderately well drained; on footslopes, in depressions, and in drainageways

Soil Properties and Qualities

Available water capacity: High (about 9.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)

Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 48 to 79 inches
Water table kind: Apparent
Flooding hazard: Very rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Loamy and sandy alluvium

Use and Management Considerations

Cropland
- This soil is well suited to corn, soybeans, wheat, and grass-legume hay and moderately suited to alfalfa hay.

Pastureland
- This soil is well suited to pasture.

Woodland
Suitability: Well suited to loblolly pine, southern red oak, and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- This soil is well suited to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 1
Virginia soil management group: B
Hydric soil: No

27B—State fine sandy loam, 2 to 6 percent slopes, very rarely flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 125 acres

Map Unit Composition

State and similar soils: Typically 85 percent, ranging from about 80 to 90 percent

Typical Profile

Surface layer:
0 to 10 inches—brown fine sandy loam

Subsoil:
10 to 14 inches—yellowish brown sandy clay loam
14 to 40 inches—strong brown sandy clay loam
40 to 50 inches—strong brown sandy clay loam; reddish yellow masses of oxidized iron
50 to 56 inches—brownish yellow and yellowish brown sandy clay loam

Substratum:
56 to 64 inches—yellowish brown and brownish yellow sandy loam
64 to 84 inches—yellow sand

Minor Components

Dissimilar components:
- Tarboro soils, which have more sand in the subsoil; in similar landscape positions
- Augusta soils, which are somewhat poorly drained; on stream terraces

Similar components:
- Soils that have redder subsoils; in similar landscape positions
- Bojac soils, which have more sand and less clay in the subsoil; in similar landscape positions
- Altavista soils, which are moderately well drained; on footslopes, in depressions, and in drainageways

Soil Properties and Qualities

Available water capacity: High (about 9.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 48 to 79 inches
Water table kind: Apparent
Flooding hazard: Very rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Surface fragments: None
Parent material: Loamy and sandy alluvium

Use and Management Considerations

Cropland
Suitability: Well suited to corn, soybeans, wheat, and grass-legume hay; moderately suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.

Pastureland
Suitability: Well suited to pasture

- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
Suitability: Well suited to loblolly pine, southern red oak, and yellow-poplar
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The low strength interferes with the construction of haul roads and log landings.
- The low strength may create unsafe conditions for log trucks.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- This soil is well suited to local roads and streets.

Interpretive Groups

Prime farmland: All areas are prime farmland
Land capability class: 2e
Virginia soil management group: B
Hydric soil: No

28B—Tarboro loamy sand, 0 to 6 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 30 acres

Map Unit Composition

Tarboro and similar soils: Typically 95 percent, ranging from about 90 to 100 percent

Typical Profile

Organic layer:
0 to 1 inch—slightly decomposed plant material

Surface layer:
1 to 8 inches—dark brown loamy sand

Substratum:
8 to 23 inches—brownish yellow sand
23 to 35 inches—brownish yellow sand
35 to 56 inches—strong brown sand
56 to 84 inches—strong brown and very pale brown sand

Minor Components

Dissimilar components:
- Seabrook soils, which are moderately well drained; on footslopes, in depressions, and in drainageways
- Nimmo soils, which are poorly drained and have less sand and more clay in the subsoil; in depressions and drainageways
- Bojac and State soils, which are well drained and have less sand and more clay in the subsoil; in similar landscape positions
- Altavista soils, which are moderately well drained and have less sand and more clay in the subsoil; in slightly lower landscape positions

Similar components:
- Soils that have gravel throughout; in similar landscape positions
- Soils that have lamellae in the subsoil; in similar landscape positions
- Buncombe soils on river levees

Soil Properties and Qualities

Available water capacity: Very low (about 2.6 inches)
Slowest saturated hydraulic conductivity: High (about 6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Somewhat excessively drained
Depth to seasonal water saturation: More than 6 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Surface fragments: None
Parent material: Sandy alluvium

Use and Management Considerations

Cropland
Suitability: Moderately suited to wheat; poorly suited to corn, soybeans, and grass-legume hay; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- The limited available water capacity may cause plants to suffer from moisture stress.
- Sandy or coarse textured layers accelerate the rate at which plant nutrients are leached.
- Soil crusting results in a decrease in water infiltration and hinders the emergence of seedlings.

Pastureland
Suitability: Poorly suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.
- The limited available water capacity may cause plants to suffer from moisture stress during the drier summer months.

Woodland
Suitability: Poorly suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.

- Coarse textured soil layers may slough, thus reducing the efficiency of mechanical planting equipment.
- The coarseness of the soil material may reduce the traction of wheeled harvest equipment and log trucks.
- Coarse textured soil layers increase the maintenance of haul roads and log landings.

Building sites
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets
- This soil is well suited to local roads and streets.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4s
Virginia soil management group: II
Hydric soil: No

29A—Tomotley sandy loam, 0 to 2 percent slopes, rarely flooded

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Drainageways and slight depressions on stream terraces along the Nottoway and Meherrin Rivers
Position on the landform: Base slopes and treads
Shape and size of areas: Elongated or irregular, 3 to 150 acres

Map Unit Composition

Tomotley and similar soils: Typically 90 percent, ranging from about 85 to 95 percent

Typical Profile

Surface layer:
0 to 8 inches—very dark grayish brown sandy loam

Subsurface layer:
8 to 12 inches—grayish brown sandy loam; light brownish gray iron depletions and olive yellow masses of oxidized iron

Subsoil:
12 to 35 inches—light brownish gray sandy clay loam; olive yellow masses of oxidized iron
35 to 48 inches—light brownish gray sandy clay loam; olive yellow masses of oxidized iron
48 to 60 inches—light brownish gray sandy loam

Substratum:
60 to 84 inches—gray loamy coarse sand

Minor Components

Dissimilar components:
- Altavista soils, which are moderately well drained; on stream terraces
- Augusta soils, which are somewhat poorly drained; in slightly higher landscape positions
- Chastain soils, which have more clay in the subsoil; on flood plains
- Dorovan soils, which are poorly drained and have a thick organic layer; on flood plains
- State and Bojac soils, which are well drained; in higher landscape positions

Similar components:
- Roanoke soils, which have more clay in the subsoil; in similar landscape positions
- Nimmo soils, which have more sand in the subsoil; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 8.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Poorly drained
Depth to seasonal water saturation: About 0 to 12 inches
Water table kind: Apparent
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very high
Surface fragments: None
Parent material: Loamy and sandy alluvium

Use and Management Considerations

Cropland
Suitability: Poorly suited to corn, soybeans, wheat, and grass-legume hay; not suited to alfalfa hay
- The seasonal high water table restricts equipment operation, decreases the viability of crops, and interferes with the planting and harvesting of crops.

Pastureland
Suitability: Poorly suited to pasture
- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland
Suitability: Well suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Soil wetness may limit the use of log trucks.
- This soil is well suited to haul roads and log landings.

Building sites
- Flooding is a limitation affecting building site development.
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Prime farmland if drained
Land capability class: 4w
Virginia soil management group: OO
Hydric soil: Yes

30B—Uchee loamy sand, 0 to 6 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 200 acres

Map Unit Composition

Uchee and similar soils: Typically 80 percent, ranging from about 70 to 90 percent

Typical Profile

Surface layer:
0 to 6 inches—dark grayish brown loamy sand

Subsurface layer:
6 to 24 inches—light yellowish brown loamy sand

Subsoil:
24 to 35 inches—brownish yellow sandy loam
35 to 45 inches—yellowish brown sandy loam
45 to 50 inches—yellowish brown sandy clay loam; yellowish red masses of oxidized iron
50 to 65 inches—yellowish brown sandy clay loam; light gray iron depletions and yellowish red masses of oxidized iron

Minor Components

Dissimilar components:
- Alaga and Pactolus soils, which have a sandier subsoil; on stream terraces
- Rumford soils, which have a thinner sandy surface layer and less clay in the subsoil; in similar landscape positions
- Nansemond soils, which are moderately well drained and have a thinner sandy surface layer; on footslopes and in slight depressions
- Craven soils, which are moderately well drained and have more clay in the subsoil; on head slopes and backslopes
- Winton and Nevarc soils, which are moderately well drained and have more clay in the subsoil; on steeper slopes

Similar components:
- Emporia and Kenansville soils, which are well drained; in similar landscape positions

- Slagle and Ocilla soils, which are moderately well drained; on shoulders, backslopes, and footslopes
- Soils that have thicker sandy surface layers; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 6.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 42 to 60 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Low
Surface fragments: None
Parent material: Loamy and sandy marine deposits and/or alluvium

Use and Management Considerations

Cropland

Suitability: Well suited to wheat and grass-legume hay; moderately suited to corn; poorly suited to soybeans; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- Sandy or coarse textured layers accelerate the rate at which plant nutrients are leached.

Pastureland

Suitability: Moderately suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland

Suitability: Moderately suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- This soil is well suited to haul roads and log landings.
- This soil is well suited to equipment operations.

Building sites

- The seasonal high water table may restrict the period when excavations can be made.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields

- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.

Local roads and streets

- This soil is well suited to local roads and streets.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3s
Virginia soil management group: DD
Hydric soil: No

30C—Uchee loamy sand, 6 to 10 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 150 acres

Map Unit Composition

Uchee and similar soils: Typically 80 percent, ranging from about 70 to 90 percent

Typical Profile

Surface layer:
0 to 6 inches—dark grayish brown loamy sand

Subsurface layer:
6 to 24 inches—light yellowish brown loamy sand

Subsoil:
24 to 35 inches—brownish yellow sandy loam
35 to 45 inches—yellowish brown sandy loam
45 to 50 inches—yellowish brown sandy clay loam; yellowish red masses of oxidized iron
50 to 65 inches—yellowish brown sandy clay loam; light gray iron depletions and yellowish red masses of oxidized iron

Minor Components

Dissimilar components:
- Rumford soils, which have a thinner sandy surface layer and less clay in the subsoil; in similar landscape positions
- Nansemond soils, which are moderately well drained and have a thinner sandy surface layer; on footslopes and in slight depressions
- Craven soils, which are moderately well drained and have more clay in the subsoil; on head slopes and backslopes
- Winton and Nevarc soils, which are moderately well drained and have more clay in the subsoil; on steeper slopes

Similar components:
- Emporia and Kenansville soils, which are well drained; in similar landscape positions
- Slagle and Ocilla soils, which are moderately well drained; on shoulders, backslopes, and footslopes
- Soils that have a thicker sandy surface layer; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 6.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)

Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 42 to 60 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Loamy and sandy marine deposits and/or alluvium

Use and Management Considerations

Cropland
Suitability: Moderately suited to wheat and grass-legume hay; poorly suited to corn and soybeans; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- Sandy or coarse textured layers accelerate the rate at which plant nutrients are leached.

Pastureland
Suitability: Moderately suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
Suitability: Moderately suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- This soil is well suited to haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- Because the excessive permeability limits the proper treatment of the effluent from conventional septic systems, the water table may become polluted.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4s

Virginia soil management group: DD
Hydric soil: No

30D—Uchee loamy sand, 10 to 15 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Marine terraces
Position on the landform: Treads and risers
Shape and size of areas: Elongated or irregular, 3 to 150 acres

Map Unit Composition

Uchee and similar soils: Typically 80 percent, ranging from about 70 to 90 percent

Typical Profile

Surface layer:
0 to 6 inches—dark grayish brown loamy sand

Subsurface layer:
6 to 24 inches—light yellowish brown loamy sand

Subsoil:
24 to 35 inches—brownish yellow sandy loam
35 to 45 inches—yellowish brown sandy loam
45 to 50 inches—yellowish brown sandy clay loam; yellowish red masses of oxidized iron
50 to 65 inches—yellowish brown sandy clay loam; light gray iron depletions and yellowish red masses of oxidized iron

Minor Components

Dissimilar components:
- Nevarc soils, which are moderately well drained and have more clay in the subsoil; in similar landscape positions
- Winton soils, which are moderately well drained and have thinner surface layers; in steeper landscape positions

Similar components:
- Soils that have thicker sandy surface layers; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 6.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Well drained
Depth to seasonal water saturation: About 42 to 60 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Surface fragments: None
Parent material: Loamy and sandy marine deposits and/or alluvium

Use and Management Considerations

Cropland
Suitability: Moderately suited to wheat and grass-legume hay; poorly suited to corn and soybeans; not suited to alfalfa hay
- The rate of surface runoff, the hazard of erosion, and the amount of nutrient loss are increased because of the slope.
- Sandy or coarse textured layers accelerate the rate at which plant nutrients are leached.

Pastureland
Suitability: Poorly suited to pasture
- The hazard of erosion, the rate of surface runoff, and the amount of nutrient loss are increased because of the slope.

Woodland
Suitability: Moderately suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks.
- The slope may restrict the use of some mechanical planting equipment.
- This soil is well suited to haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Virginia soil management group: DD
Hydric soil: No

31—Udorthents, smoothed

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Variable
Position on the landform: Variable
Shape and size of areas: Irregular, 3 to 50 acres

Map Unit Composition

Udorthents: Typically 80 percent, ranging from about 70 to 90 percent

Definition

Udorthents have resulted from disturbance of soil by excavation or filling. They consist of loamy and sandy soil material and varying amounts of foreign debris, such as concrete and asphalt. The land surface is generally smoothed to an altered elevation.

Use and Management Considerations

- Onsite investigation is needed to determine the suitability for specific uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: None assigned
Virginia soil management group: None assigned
Hydric soils: No

32A—Urban land-Udorthents complex, 0 to 2 percent slopes

Setting

Major land resource area: Atlantic Coast Flatwoods (MLRA 153A)
Landform: Variable
Position on the landform: Variable
Shape and size of areas: Irregular, 3 to 50 acres

Map Unit Composition

Urban land: Typically 50 percent, ranging from about 40 to 60 percent
Udorthents: Typically 30 percent, ranging from about 20 to 40 percent

Definition

Urban land
Urban land consists of areas mostly covered by streets, parking lots, buildings, and other structures of urban areas.

Udorthents
Udorthents have resulted from disturbance of soil by excavation or filling. They consist of loamy and sandy soil material and varying amounts of foreign debris, such as concrete and asphalt.

Use and Management Considerations

- Onsite investigation is needed to determine the suitability for specific uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: None assigned
Virginia soil management group: None assigned
Hydric soils: No

33F—Winton fine sandy loam, 15 to 65 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Bluffs and escarpments on stream terraces along the Nottoway River
Position on the landform: Moderately steep to very steep side slopes
Shape and size of areas: Long and narrow, 20 to 200 acres

Map Unit Composition

Winton and similar soils: Typically 80 percent, ranging from about 70 to 90 percent

Typical Profile

Surface layer:
0 to 5 inches—dark grayish brown fine sandy loam
5 to 9 inches—light olive brown fine sandy loam

Subsurface layer:
9 to 14 inches—light yellowish brown sandy loam

Subsoil:
14 to 22 inches—olive yellow sandy clay loam; strong brown masses of oxidized iron
22 to 35 inches—light yellowish brown clay loam; light gray iron depletions and strong brown masses of oxidized iron
35 to 56 inches—light olive brown sandy loam; light gray iron depletions

Substratum:
56 to 70 inches—light yellowish brown loamy sand; brownish yellow and yellowish red masses of oxidized iron

Minor Components

Dissimilar components:
- State and Bojac soils, which are well drained; on stream terraces
- Roanoke soils, which are poorly drained; on low terraces
- Augusta soils, which are somewhat poorly drained; in depressions and drainageways
- Nevarc soils, which have more clay in the subsoil; in similar landscape positions
- Uchee soils, which are well drained and have a thick sandy surface layer; in similar positions

Similar components:
- Altavista soils, which are susceptible to rare flooding; on stream terraces
- Remlik soils, which have less clay in the subsoil; in similar landscape positions
- Craven soils, which are moderately well drained; on less steep slopes

Soil Properties and Qualities

Available water capacity: Moderate (about 8.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 24 to 42 inches
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None

Shrink-swell potential: Low
Runoff class: High
Surface fragments: None
Parent material: Loamy and sandy marine deposits and/or alluvium

Use and Management Considerations

Cropland
- This soil is unsuited to cropland.

Pastureland
- This soil is unsuited to pastureland.

Woodland
Suitability: Well suited to loblolly pine
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- The slope poses safety hazards and creates a potential for erosion during the construction of haul roads and log landings.
- The slope creates unsafe operating conditions and reduces the operating efficiency of log trucks and harvesting equipment.
- Because of the slope, the use of equipment for planting and seeding is impractical.
- The slope makes the use of mechanical planting equipment impractical.
- The low strength interferes with the construction of haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.
- The slope influences the use of machinery and the amount of excavation required.
- The high content of sand or gravel in the soil increases sloughing and causes cutbanks to be more susceptible to caving.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.
- The slope limits the proper treatment of effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.
- The low strength may cause structural damage to local roads and streets.
- Because of the slope, designing local roads and streets is difficult.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Virginia soil management group: K
Hydric soil: No

34A—Yemassee fine sandy loam, 0 to 2 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Drainageways and depressions on stream terraces and marine terraces

Position on the landform: Treads, head slopes, and base slopes
Shape and size of areas: Elongated or irregular, 3 to 20 acres

Map Unit Composition

Yemassee and similar soils: Typically 80 percent, ranging from about 70 to 90 percent

Typical Profile

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

Subsurface layer:
4 to 15 inches—pale brown fine sandy loam; strong brown and yellowish brown masses of oxidized iron

Subsoil:
15 to 40 inches—light brownish gray sandy clay loam; strong brown and yellowish brown masses of oxidized iron
40 to 60 inches—gray sandy loam; yellowish brown, red, and strong brown masses of oxidized iron

Minor Components

Dissimilar components:
- Emporia soils, which are well drained; on narrow ridge summits and shoulders
- Nansemond soils, which are moderately well drained and have less clay in the subsoil; on low ridges and knolls
- Roanoke soils, which are poorly drained and have more clay in the subsoil; in depressions and drainageways
- Soils that have more clay in the subsoil; in similar landscape positions

Similar components:
- Slagle soils, which are moderately well drained; on low ridges and knolls and on broad flats
- Myatt soils, which are poorly drained; in depressions and drainageways
- Soils that have thicker sandy surface layers; in similar landscape positions

Soil Properties and Qualities

Available water capacity: Moderate (about 8.5 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.6 in/hr)
Depth class: Very deep (more than 60 inches)
Depth to root-restrictive feature: More than 60 inches
Drainage class: Somewhat poorly drained
Depth to seasonal water saturation: About 12 to 18 inches
Water table kind: Apparent
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very high
Surface fragments: None
Parent material: Loamy marine deposits and/or alluvium

Use and Management Considerations

Cropland
Suitability: Poorly suited to corn, soybeans, wheat, and grass-legume hay; not suited to alfalfa hay

- The seasonal high water table restricts equipment operation, decreases the viability of crops, and interferes with the planting and harvesting of crops.

Pastureland
Suitability: Poorly suited to pasture
- The seasonal high water table can affect equipment use, grazing patterns, and the viability of grass and legume species.

Woodland
Suitability: Well suited to loblolly pine and yellow-poplar; moderately suited to sweetgum
- Proper planning for timber harvesting is essential in order to minimize the potential negative impact to soil and water quality. A timber harvest plan should include general adherence to all applicable best management practices.
- Soil wetness may limit the use of log trucks.
- This soil is well suited to haul roads and log landings.

Building sites
- The seasonal high water table may restrict the period when excavations can be made.

Septic tank absorption fields
- The seasonal high water table greatly limits the absorption and proper treatment of the effluent from conventional septic systems.

Local roads and streets
- The seasonal high water table affects the ease of excavation and grading and reduces the bearing capacity of the soil.

Interpretive Groups

Prime farmland: Prime farmland if drained
Land capability class: 4w
Virginia soil management group: OO
Hydric soil: No

W—Water

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A) and Atlantic Coast Flatwoods (MLRA 153A)
Landform: Ponds, lakes, and streams

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as rangeland and forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; for agricultural waste management; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of gravel, sand, reclamation material, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited, somewhat limited,* and *very limited*. The suitability ratings are expressed as *well suited, moderately suited, poorly suited,* and *unsuited* or as *good, fair,* and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

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.

Effective pasture management practices include maintaining a mixture of grasses and legumes, rotating pasture, deferring grazing, controlling undesirable vegetation, and using proper stocking rates.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading “Detailed Soil Map Units.” Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Yields per Acre

The average yields per acre shown in table 5 are those that can be expected of the principal crops under a high level of management. 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 and the Virginia soil management group of map units in the survey area also are shown in the table.

The yields are based on VALUES, the Virginia Agronomic Land Use Evaluation System (Virginia Polytechnic Institute and State Univerisity, 1994). 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.

Realistic yield goals can be maintained over a long-term basis through proper nutrient management and other soil amendments such as lime. Applications of nitrogen and phosphorus from organic and inorganic forms should be done according to approved nutrient management practices and regulations.

For yields of irrigated crops, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

Pasture yields are expressed in terms of animal unit months. An animal unit month (AUM) is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in table 5 are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (USDA-SCS, 1961).

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e, w, s,* or *c,* to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c,* used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w, s,* or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2e-4 and 3e-6. These units are not given in all soil surveys.

The capability classification of the soils in this survey area is given in the section "Detailed Soil Map Units" and in the yields table.

Virginia Soil Management Groups

The Virginia Agronomic Land Use Evaluation System (VALUES) is a system that ranks soils for management and productivity (Virginia Polytechnic Institute and State Univerisity, 1994). VALUES places each soil series in Virginia into one of 43 management groups. The format of the management groups, A through QQ, include the following soil characteristics—regional occurrence; parent material; landscape position or influence; solum thickness; dominant profile features, such as texture; available water capacity for plants; and internal soil drainage. Yields that are both economically and environmentally feasible were assigned to each management group, based on yields of field trial crop data and research. The following paragraphs describe the soil management groups in Southampton County.

Group B. The soils of this group formed in alluvial parent materials and are on nearly level or gently sloping flood plains or stream terraces in the Coastal Plain region. These soils are very deep and have loamy textures throughout. They have a high available water capacity and are well drained or moderately well drained.

Group E. The soils of this group formed in sandy coastal plain sediments on low terraces, in depressions, or on flats where surface drainage is restricted. These soils are very deep, have coarse-loamy textures throughout, and typically have high water tables even during some parts of the growing season. They have a high available water capacity and are poorly drained.

Group F. The soils of this group formed in coarse textured coastal plain sediments and are in low-lying landscape positions underlain by stratified loamy sediments. These soils are very deep and have coarse-loamy textures throughout. They have a moderate or high available water capacity and are somewhat poorly drained.

Group G. The soils of this group formed in locally transported, medium-textured sediments of alluvial origin on flood plains. These soils are deep and have silty to loamy upper subsoils underlain with sandy materials. They have a moderately high water-supplying capacity. A seasonal high water table is in the lower part of the soil.

Group I. The soils of this group formed from alluvium along flood plains in the Coastal Plain and Piedmont provinces. These soils are somewhat prone to the hazard of flooding. They are deep, have predominantly clay loam subsurface horizons, have a moderately high water-supplying capacity, and are somewhat poorly drained.

Group J. The soils of this group formed in coastal plain sediments and are in low-lying landscape positions underlain by stratified loamy sediments. These soils are very deep and have loamy subsurface layers. They have a moderately high available water capacity and are moderately well drained or somewhat poorly drained.

Group K. The soils of this group formed from mixed marine and fluvial sediments in the Coastal Plain. These soils are on landscapes that range from stream terraces to broad, nearly level interfluves on uplands. They are very deep and have loamy surface layers and clay loam to clayey subsurface layers. They have a moderate available water capacity and are somewhat poorly drained.

Group R. The soils of this group formed from marine sediments in the Coastal Plain on gently sloping uplands. These soils are very deep, have sandy loam surface layers and reddish yellow clay loam to clay subsurface layers, and may have redoximorphic features in the lower part of the subsoil. They have a moderate available water capacity and are moderately well drained or well drained.

Group Z. The soils of this group formed from alluvial or colluvial sediments and are on low terraces. These soils are very deep and have clayey subsurface layers.

They have a moderate available water capacity and are moderately well drained or well drained.

Group DD. The soils of this group formed from loamy coastal plain sediments and local alluvium and are on gently sloping uplands and stream terraces. These soils are very deep and have coarse-loamy subsurface layers. Some of the soils have arenic or very thick sandy surface layers. They have a moderately low available water capacity and are excessively drained.

Group EE. The soils of this group formed from loamy coastal plain sediments and are in low-lying landscape positions. These soils are very deep and have sandy to coarse-loamy subsurface layers. Water tables are usually high in these soils during some part of the year. These soils have a low or moderately low available water capacity and are poorly drained or very poorly drained.

Group HH. The soils of this group formed in loamy alluvial sediments. These soils are on flood plains. These soils are very deep, have fine-loamy or clayey subsurface layers, and have a moderate available water capacity. They are moderately well drained or somewhat poorly drained.

Group II. The soils of this group formed in sandy coastal plain sediments. These soils are very deep, have sandy layers throughout, and have a very low or low available water capacity. They are moderately well drained to excessively drained.

Group LL. The soils of this group formed in clayey coastal plain sediments on low-lying landscapes. These soils are very deep and have clayey subsurface layers throughout. They have a moderate available water capacity and are somewhat poorly drained or poorly drained.

Group NN. The soils in this group formed in alluvium along streams or on terraces. These soils are moderately deep, have silty to clay loam subsurface textures, have a moderately high water-supplying capacity, and are somewhat poorly drained or poorly drained.

Group OO. The soils of this group formed in loamy and silty coastal plain sediments on terraces and broad, nearly level uplands. These soils are very deep and have loamy to silty layers throughout. They have a high available water capacity and are poorly drained.

Group PP. The soils of this group formed in alluvium in marshes and tidal wetlands. These soils are very deep and have a combination of organic, clayey, or sulfidic layers. They have water tables at or near the soil surface and are saturated most of the time. These soils are poorly drained or very poorly drained.

The management groups for the map units in Southampton County are given in the section “Detailed Soil Map Units” and in the yields table.

Prime Farmland

Table 6 lists the map units in the survey area that are considered prime farmland. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation’s food supply.

Prime farmland is of major importance in meeting the Nation’s short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation’s prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

About 231,349 acres in Southampton County, or nearly 59 percent of the total acreage, meets the requirements for prime farmland. A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

For some soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

Hydric Soils

Table 7 lists the map units that are rated as hydric soils in the survey area. 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, 2002).

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 all 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, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are 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, 2006) and in the “Soil Survey Manual” (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time 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 are specified in “Field Indicators of Hydric Soils in the United States” (Hurt and others, 2002).

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.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly 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.

2A	Altavista fine sandy loam, 0 to 2 percent slopes, rarely flooded
2B	Altavista fine sandy loam, 2 to 6 percent slopes, rarely flooded
3A	Augusta sandy loam, 0 to 2 percent slopes, rarely flooded
5B	Bojac loamy sand, 2 to 6 percent slopes, very rarely flooded
6A	Buncombe loamy sand, 0 to 2 percent slopes, occasionally flooded
9A	Chewacla loam, 0 to 2 percent slopes, frequently flooded
13A	Emporia fine sandy loam, 0 to 2 percent slopes
13B	Emporia fine sandy loam, 2 to 6 percent slopes
14A	Exum silt loam, 0 to 2 percent slopes
15A	Munden loamy sand, 0 to 2 percent slopes, rarely flooded
22A	Riverview sandy loam, 0 to 2 percent slopes, frequently flooded
24B	Rumford, Kenansville, and Uchee soils, 0 to 6 percent slopes
24C	Rumford, Kenansville, and Uchee soils, 6 to 10 percent slopes
26A	Slagle fine sandy loam, 0 to 2 percent slopes
26B	Slagle fine sandy loam, 2 to 6 percent slopes
26C	Slagle fine sandy loam, 6 to 10 percent slopes
28B	Tarboro loamy sand, 0 to 6 percent slopes
31	Udorthents, smoothed
32A	Urban land-Udorthents complex, 0 to 2 percent slopes
33F	Winton fine sandy loam, 15 to 65 percent slopes
34A	Yemassee fine sandy loam, 0 to 2 percent slopes

Agricultural Waste Management

Soil properties are important considerations in areas where soils are used as sites for the treatment and disposal of organic waste and wastewater. Selection of soils with properties that favor waste management can help to prevent environmental damage.

Table 8, parts I, II, and III, show the degree and kind of soil limitations affecting the treatment of agricultural waste, including municipal and food-processing wastewater and effluent from lagoons or storage ponds. Municipal wastewater is the waste stream from a municipality. It contains domestic waste and may contain industrial waste. It may have received primary or secondary treatment. It is rarely untreated sewage. Food-processing wastewater results from the preparation of fruits, vegetables, milk, cheese, and meats for public consumption. In places it is high in content of sodium and chloride. In the context of this table, the effluent in lagoons and storage ponds is from facilities used to treat or store food-processing wastewater or domestic or animal waste. Domestic and food-processing wastewater is very dilute, and the effluent from the facilities that treat or store it commonly is very low in content of carbonaceous and nitrogenous material; the content of nitrogen commonly ranges from 10 to 30 milligrams per liter. The wastewater from animal waste treatment lagoons or storage ponds, however, has much higher concentrations of these materials, mainly because the manure has not been diluted as much as the domestic waste. The content of nitrogen in this wastewater generally ranges from 50 to 2,000 milligrams per liter. When wastewater is applied, checks should be made to ensure that nitrogen, heavy metals, and salts are not added in excessive amounts.

The ratings in the table are for waste management systems that not only dispose of and treat organic waste or wastewater but also are beneficial to crops (application of manure and food-processing waste, application of sewage sludge, and disposal of wastewater by irrigation) and for waste management systems that are designed only for the purpose of wastewater disposal and treatment (overland flow of wastewater, rapid infiltration of wastewater, and slow rate treatment of wastewater).

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 agricultural waste management. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Application of manure and food-processing waste not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. Manure is the excrement of livestock and poultry, and food-processing waste is damaged fruit and vegetables and the peelings, stems, leaves, pits, and soil particles removed in food preparation. The manure and food-processing waste are either solid, slurry, or liquid. Their nitrogen content varies. A high content of nitrogen limits the application rate. Toxic or otherwise dangerous wastes, such as those mixed with the lye used in food processing, are not considered in the ratings.

The ratings are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the waste is applied, and the method by which the waste is applied. The properties that affect absorption include saturated hydraulic conductivity (K_{sat}), depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, and available water capacity. The properties that affect plant growth and microbial activity include reaction, the sodium adsorption ratio, salinity, and bulk density. The wind erodibility group, the soil erosion factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Application of sewage sludge not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. In the context of this table, sewage sludge is the residual product of the treatment of municipal sewage. The solid component consists mainly of cell mass, primarily bacteria cells that developed during secondary treatment and have incorporated soluble organics into their own bodies. The sludge has small amounts of sand, silt, and other solid debris. The content of nitrogen varies. Some sludge has constituents that are toxic to plants or hazardous to the food chain, such as heavy metals and exotic organic compounds, and should be analyzed chemically prior to use.

The content of water in the sludge ranges from about 98 percent to less than 40 percent. The sludge is considered liquid if it is more than about 90 percent water, slurry if it is about 50 to 90 percent water, and solid if it is less than about 50 percent water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the sludge is applied, and the method by which the sludge is applied. The properties that affect absorption, plant growth, and microbial activity include saturated hydraulic conductivity (K_{sat}), depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, available water capacity, reaction, salinity, and bulk density. The wind erodibility group, the soil erosion factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of sludge. Permanently frozen soils are unsuitable for waste treatment.

Disposal of wastewater by irrigation not only disposes of municipal wastewater and wastewater from food-processing plants, lagoons, and storage ponds but also can improve crop production by increasing the amount of water available to crops. The ratings in the table are based on the soil properties that affect the design, construction, management, and performance of the irrigation system. The properties that affect design and management include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, saturated hydraulic conductivity (K_{sat}), slope, and flooding. The properties that affect construction include stones, cobbles, depth to bedrock or a cemented pan, depth to a water table, and ponding. The properties that affect performance include depth to bedrock or a cemented pan, bulk density, the sodium adsorption ratio, salinity, reaction, and the cation-exchange capacity, which is used to estimate the capacity of a soil to adsorb heavy metals. Permanently frozen soils are not suitable for disposal of wastewater by irrigation.

Overland flow of wastewater is a process in which wastewater is applied to the upper reaches of sloped land and allowed to flow across vegetated surfaces, sometimes called terraces, to runoff-collection ditches. The length of the run generally is 150 to 300 feet. The application rate ranges from 2.5 to 16.0 inches per week. It commonly exceeds the rate needed for irrigation of cropland. The wastewater leaves solids and nutrients on the vegetated surfaces as it flows downslope in a thin film. Most of the water reaches the collection ditch, some is lost through evapotranspiration, and a small amount may percolate to the ground water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, and the design and construction of the system. Reaction and the cation-exchange capacity affect absorption. Reaction, salinity, and the sodium adsorption ratio affect plant growth and microbial activity. Slope, saturated hydraulic conductivity (K_{sat}), depth to a water table, ponding, flooding, depth to bedrock or a cemented pan, stones, and cobbles affect design and construction. Permanently frozen soils are unsuitable for waste treatment.

Rapid infiltration of wastewater is a process in which wastewater applied in a level basin at a rate of 4 to 120 inches per week percolates through the soil. The wastewater may eventually reach the ground water. The application rate commonly exceeds the rate needed for irrigation of cropland. Vegetation is not a necessary part of the treatment; hence, the basins may or may not be vegetated. The thickness of the soil material needed for proper treatment of the wastewater is more than 72 inches. As a result, geologic and hydrologic investigation is needed to ensure proper design and performance and to determine the risk of ground-water pollution.

The ratings in the table are based on the soil properties that affect the risk of pollution and the design, construction, and performance of the system. Depth to a water table, ponding, flooding, and depth to bedrock or a cemented pan affect the risk of pollution and the design and construction of the system. Slope, stones, and cobbles also affect design and construction. Saturated hydraulic conductivity (K_{sat}) and reaction affect performance. Permanently frozen soils are unsuitable for waste treatment.

Slow rate treatment of wastewater is a process in which wastewater is applied to land at a rate normally between 0.5 inch and 4.0 inches per week. The application rate commonly exceeds the rate needed for irrigation of cropland. The applied wastewater is treated as it moves through the soil. Much of the treated water may percolate to the ground water, and some enters the atmosphere through evapotranspiration. The applied water generally is not allowed to run off the surface. Waterlogging is prevented either through control of the application rate or through the use of tile drains, or both.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, and the application of waste. The properties that affect absorption include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, saturated hydraulic conductivity (K_{sat}), depth to bedrock or a cemented pan, reaction, the cation-exchange capacity, and slope. Reaction, the sodium adsorption ratio, salinity, and bulk density affect plant growth and microbial activity. The wind erodibility group, the soil erosion factor K, and slope are considered in estimating the likelihood of wind erosion or water erosion. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Forestland Productivity and Management

The tables described in this section can help forest owners or managers plan the use of soils for wood crops. They show the potential productivity of the soils for wood crops and rate the soils according to the limitations that affect various aspects of forestland management.

Woodland covers about 240,500 acres, or approximately 62 percent of the land area in Southampton County. The more common trees in the upland areas are loblolly pine, yellow-poplar, red maple, sweetgum, white oak, and red oak. The main species on bottomland or in swamps are baldcypress, tupelo gum, green ash, river birch, willow oak, and water oak. Much of the woodland in Southampton County is used for timber production; however the same land is used extensively for recreational uses, such as hunting and fishing. Much of the merchantable timber is on soils with a seasonal high water table, which limits the use of heavy equipment during wet seasons. In the 5-year period between 1986 and 1991, Southamption County ranked number 1 in the State of Virginia for sawtimber harvest removals and ranked number 2 in the State for growing stock removals (USDA, Forest Service, 1992)

Forestland Productivity

In table 9, the *potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the “National Forestry Manual,” which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forestland Management

In table 10, parts I through V, interpretive ratings are given for various aspects of forestland management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified aspect of forestland management. *Well suited* indicates that the soil has features that are favorable for the specified management aspect and has no limitations. Good performance can be expected, and little or no maintenance is needed. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified management aspect. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. *Poorly suited* indicates that the soil has one or more properties that are unfavorable for the specified management aspect. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. *Unsuited* indicates that the expected performance of the soil is unacceptable for the specified management aspect or that extreme measures are needed to overcome the undesirable soil properties.

Proper planning for timber harvesting is essential to minimize the potential impact to soil and water quality. A harvest plan should include logging roads, log decks, streamside management zones, stream crossings, skid trails, schedule of activities, and best management practices (BMPs) for each activity. Forests should be managed to increase economic and environmental benefits. A forest stewardship plan should be developed to guide management and utilization of the woodlands.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

Rating class terms for fire damage and seedling mortality are expressed as *low, moderate,* and *high*. Where these terms are used, the numerical ratings indicate gradations between the point at which the potential for fire damage or seedling mortality is highest (1.00) and the point at which the potential is lowest (0.00).

The paragraphs that follow indicate the soil properties considered in rating the soils. More detailed information about the criteria used in the ratings is available in the “National Forestry Manual,” which is available in local offices of the Natural Resources Conservation Service or on the Internet.

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 erosion 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 erosion 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.

Ratings in the column *potential for damage to soil by fire* are based on texture of the surface layer, content of rock fragments and organic matter in the surface layer, thickness of the surface layer, and slope. The soils are described as having a low, moderate, or high potential for this kind of damage. The ratings indicate an evaluation of the potential impact of prescribed fires or wildfires that are intense enough to remove the duff layer and consume organic matter in the surface layer.

Ratings in the column *potential for seedling mortality* are based on flooding, ponding, depth to a water table, content of lime, reaction, salinity, available water capacity, soil moisture regime, soil temperature regime, aspect, and slope. The soils are described as having a low, moderate, or high potential for seedling mortality.

Recreational Development

In table 11, parts I and II, the soils of the survey area are rated according to limitations that affect their suitability for recreational development. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the table 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 this table can be supplemented by other information in this survey, for example, interpretations for dwellings without basements, for local roads and streets, and for septic tank absorption fields.

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, saturated hydraulic conductivity (K_{sat}), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (K_{sat}), 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, saturated hydraulic conductivity (K_{sat}), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (K_{sat}), 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, saturated hydraulic conductivity (K_{sat}), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (K_{sat}), 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.

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, saturated hydraulic conductivity (K_{sat}), corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, reclamation material, roadfill, and topsoil; plan structures for water management; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Table 12, parts I and II, 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 table 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 table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

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

Table 13, parts I and II, 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 table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

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 72 inches or between a depth of 24 inches and a restrictive layer 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. Saturated hydraulic conductivity (K_{sat}), 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, saturated hydraulic conductivity (K_{sat}), depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Saturated hydraulic conductivity (K_{sat}) 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 K_{sat} rate of more than 14 micrometers per second 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 saturated hydraulic conductivity (K_{sat}), 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, saturated hydraulic conductivity (K_{sat}), 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 the downward movement of water through the soil profile 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

Table 14, parts I and II, give information about the soils as potential sources of gravel, sand, reclamation material, roadfill, and topsoil. Normal compaction, minor processing, and other standard construction practices are assumed.

Gravel and *sand* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 14, part I, 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.

In table 14, part II, the rating class terms are *good, fair,* and *poor*. The features that limit the soils as sources of these materials are specified in the table. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of reclamation material, roadfill, and topsoil. The lower the number, the greater the limitation.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Water Management

Table 15 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the saturated hydraulic conductivity (K_{sat}) 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 5 or 6 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 determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering properties, physical and chemical properties, and pertinent soil and water features.

Engineering Properties

Table 16 gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

Physical Soil Properties

Table 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 the table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In the table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In the table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (K_{sat}), 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 linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (K_{sat}) refers to the ability of a soil to transmit water or air. The estimates in the table indicate the rate of water movement, in micrometers per second, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (K_{sat}) 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 the table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (K_{sat}). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Soil Properties

Table 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 cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of extractable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

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.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. The table indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The table indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Soil Features

Table 20 gives estimates of some soil features. The estimates are used in land use planning that involves engineering considerations.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, saturated hydraulic conductivity (K_{sat}), content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate,* or *high,* is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate,* or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 2006). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 21 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, mixed, semiactive, thermic Typic Hapludults.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each series. A pedon, a small three-dimensional area of soil, that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the “Soil Survey Manual” (Soil Survey Division Staff, 1993) and in the “Field Book for Describing and Sampling Soils” (Schoeneberger and others, 2002). Many of the technical terms used in the descriptions are defined in “Soil Taxonomy” (Soil Survey Staff, 1999) and in “Keys to Soil Taxonomy” (Soil Survey Staff, 2006). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Alaga Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Marine terraces and stream terraces along the Blackwater River
Parent material: Sandy marine deposits and/or sandy alluvium
Drainage class: Somewhat excessively drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 6 percent

Associated Soils

- Rumford and Uchee soils, which are well drained and have more clay in the subsoil
- Pactolus soils, which are moderately well drained
- Munden and Nansemond soils, which are moderately well drained and have more clay in the subsoil

Taxonomic Classification

Thermic, coated Typic Quartzipsamments

Typical Pedon

Alaga loamy sand, 0 to 6 percent slopes; located in Southampton County, Virginia; about 1.7 miles northeast of the junction of Highways VA-35 and VA-653, about 1.6 miles southwest of the junction of Highways VA-606 and VA-607, about 0.7 mile east-southeast of the junction of Highways VA-35 and VA-648, about 50 feet west of a logging road, in a wooded area; elevation of 44 feet; Vicksville, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 49 minutes 0.00 seconds N. and long. 77 degrees 6 minutes 46.00 seconds W.

Oi—0 to 1 inch; partially decayed pine and oak litter.
A—1 to 4 inches; light olive brown (2.5Y 5/3) loamy sand; weak medium granular structure; very friable, nonsticky, nonplastic; many fine roots; very strongly acid; clear smooth boundary.
C1—4 to 35 inches; pale yellow (2.5Y 7/4) loamy fine sand; single grain; loose, nonsticky, nonplastic; common fine roots; very strongly acid; gradual smooth boundary.
C2—35 to 69 inches; pale yellow (2.5Y 7/4) and light gray (2.5Y 7/1) sand; single grain; loose, nonsticky, nonplastic; very strongly acid; gradual smooth boundary.
C3—69 to 84 inches; light yellowish brown (2.5Y 6/4) sand; single grain; loose, nonsticky, nonplastic; common medium distinct yellow (2.5Y 7/6) masses of oxidized iron; very strongly acid.

Range in Characteristics

Thickness of sandy sediments: 80 inches or more
Silt plus clay content: 10 to 25 percent in the 10- to 40-inch control section; clay content ranges from 2 to 12 percent
Soil reaction: Extremely acid to moderately acid

A or Ap horizon:
Hue—10YR or 2.5Y
Value—3 to 5
Chroma—2 or 3
Texture—sand, fine sand, loamy sand, or loamy fine sand

C horizon:
Hue—7.5YR to 2.5Y
Value—4 to 8
Chroma—1 to 8
Redoximorphic features—iron masses in shades of brown or yellow; iron depletions in shades of olive or gray are in some pedons below a depth of 40 inches
Texture—sand, fine sand, loamy sand, or loamy fine sand

Altavista Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Parent material: Loamy alluvium
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 6 percent

Associated Soils

- State soils, which are well drained
- Bojac and Tarboro soils, which are well drained and have less clay in the subsoil
- Augusta soils, which are somewhat poorly drained
- Tomotley soils, which are poorly drained
- Munden and Seabrook soils, which have less clay in the subsoil
- Winton soils on steeper slopes

Taxonomic Classification

Fine-loamy, mixed, semiactive, thermic Aquic Hapludults

Typical Pedon

Altavista fine sandy loam, 0 to 2 percent slopes, rarely flooded; located in Southampton County, Virginia; about 1.9 miles north of the junction of Highways VA-731 and VA-749, about 1.6 miles south-southeast of the junction of Highways US-58 and VA-675, about 0.6 mile east-southeast of the junction of Highways VA-675 and VA-731, in cropland; Courtland, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 41 minutes 12.00 seconds N. and long. 77 degrees 4 minutes 37.00 seconds W.

Ap—0 to 11 inches; brown (10YR 5/3) fine sandy loam; weak medium granular structure; very friable, nonsticky, nonplastic; common fine roots; neutral; abrupt smooth boundary.
Bt1—11 to 19 inches; light yellowish brown (10YR 6/4) loam; weak fine and medium subangular blocky structure; friable, nonsticky, slightly plastic; few very fine and fine roots; few faint clay films on all faces of peds; slightly acid; clear smooth boundary.
Bt2—19 to 26 inches; yellowish brown (10YR 5/6) clay loam; weak medium

subangular blocky structure; friable, slightly sticky, slightly plastic; few fine roots; common faint clay films on all faces of peds; strongly acid; clear smooth boundary.

Bt3—26 to 38 inches; yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few faint clay films on all faces of peds; common medium prominent irregular light gray (10YR 7/2) iron depletions and common fine faint brownish yellow (10YR 6/6) masses of oxidized iron; few fine mica flakes; strongly acid; gradual wavy boundary.

Cg—38 to 51 inches; light gray (10YR 7/2) sandy clay loam with thin strata of sandy loam; massive; friable, slightly sticky, slightly plastic; common fine prominent brownish yellow (10YR 6/6) and many fine prominent yellowish red (5YR 5/8) masses of oxidized iron; few fine mica flakes; very strongly acid; gradual wavy boundary.

C—51 to 72 inches; brownish yellow (10YR 6/6) sandy loam with thin strata of sandy clay loam; massive; very friable, nonsticky, nonplastic; many medium prominent light gray (10YR 7/2) iron depletions; few fine mica flakes; very strongly acid.

Range in Characteristics

Solum thickness: 30 to 60 inches or more
Rock fragments: 0 to 5 percent in the A, E, Bt, Btg, and BC horizons; 0 to 15 percent in the C horizon
Soil reaction: Extremely acid to moderately acid, except in limed areas
Mica flakes: Few or common in the Bt, BC, C, and Cg horizons of most pedons

A or Ap horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—1 to 4
Texture—sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam

E horizon (where present):
Hue—10YR to 2.5Y
Value—5 to 7
Chroma—3 to 8
Texture—sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam

Bt horizon:
Hue—7.5YR to 2.5Y
Value—5 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray (occurring within the upper 24 inches of the Bt horizon)
Texture—loam, sandy clay loam, or clay loam

Btg horizon (where present):
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray (occurring within the upper 24 inches of the Bt horizon)
Texture—loam, clay loam, or sandy clay loam

BC horizon (where present):
Hue—7.5YR to 2.5Y
Value—5 to 7

Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—loamy sand, sandy loam, fine sandy loam, loam, or sandy clay loam

Cg horizon:
Hue—7.5YR to 2.5Y
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sand, loamy sand, sandy loam, or sandy clay loam

C horizon:
Hue—7.5YR to 2.5Y
Value—4 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sand, loamy sand, sandy loam, or sandy clay loam

Augusta Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Stream terraces and drainageways along the Nottoway and Meherrin Rivers
Parent material: Loamy alluvium
Drainage class: Somewhat poorly drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Altavista soils, which are moderately well drained
- Munden soils, which are moderately well drained and have less clay in the subsoil
- State soils, which are well drained
- Tomotley soils, which are poorly drained
- Nimmo soils, which are poorly drained and have less clay in the subsoil
- Roanoke soils, which are poorly drained and have more clay in the subsoil

Taxonomic Classification

Fine-loamy, mixed, semiactive, thermic Aeric Endoaquults

Typical Pedon

Augusta sandy loam, 0 to 2 percent slopes, rarely flooded; located in Southampton County, Virginia; about 2.2 miles northwest of the junction of Highways VA-35 and VA-647, about 1.4 miles southwest of the junction of Highways VA-35 and VA-628, about 0.8 mile northeast of Vicks Island on the Nottoway River, 90 feet southwest of Highway VA-647, in a wooded area; elevation of 41 feet; Vicksville, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 45 minutes 21.00 seconds N. and long. 77 degrees 6 minutes 40.00 seconds W.

Oi—0 to 3 inches; slightly decomposed plant material; partially decayed pine and oak litter.
A—3 to 6 inches; brown (10YR 5/3) sandy loam; moderate medium granular structure;

friable, nonsticky, nonplastic; many fine and medium roots; common fine moderate-continuity interstitial pores; very strongly acid; clear smooth boundary.

E—6 to 11 inches; light yellowish brown (2.5Y 6/4) sandy loam; moderate medium and coarse subangular blocky structure; friable, nonsticky, nonplastic; many fine and medium roots; many very fine moderate-continuity interstitial pores; many medium distinct light brownish gray (2.5Y 6/2) iron depletions and many medium prominent olive yellow (2.5Y 6/8) masses of oxidized iron; very strongly acid; gradual smooth boundary.

Bt—11 to 26 inches; light yellowish brown (2.5Y 6/3) sandy clay loam; moderate coarse subangular blocky structure; firm, slightly sticky, slightly plastic; many fine roots between peds; common fine moderate-continuity interstitial pores; common distinct continuous clay films on all faces of peds; common medium prominent olive yellow (2.5Y 6/8) masses of oxidized iron; very strongly acid; clear smooth boundary.

Btg1—26 to 36 inches; grayish brown (2.5Y 5/2) sandy clay loam; moderate coarse subangular blocky structure; firm, slightly sticky, slightly plastic; few medium and common very fine roots; common fine moderate-continuity interstitial pores; common distinct continuous clay films on all faces of peds; common medium prominent olive yellow (2.5Y 6/8) masses of oxidized iron; very strongly acid; clear smooth boundary.

Btg2—36 to 46 inches; light gray (2.5Y 7/1) sandy clay loam; moderate coarse subangular blocky structure; firm, slightly sticky, slightly plastic; common fine moderate-continuity interstitial pores; common distinct continuous clay films on all faces of peds; common medium prominent olive yellow (2.5Y 6/8) masses of oxidized iron; very strongly acid; clear smooth boundary.

Cg1—46 to 54 inches; white (2.5Y 8/1) sandy loam; massive; friable, nonsticky, nonplastic; very strongly acid; clear smooth boundary.

Cg2—54 to 65 inches; white (2.5Y 8/1) sand; single grain; loose, nonsticky, nonplastic; common medium faint light brownish gray (2.5Y 6/2) iron depletions and many medium distinct pale yellow (2.5Y 7/4) masses of oxidized iron; very strongly acid; clear smooth boundary.

C—65 to 84 inches; brownish yellow (10YR 6/8) sand; single grain; loose, nonsticky, nonplastic; common medium distinct pale yellow (2.5Y 7/4) masses of oxidized iron and many medium prominent white (2.5Y 8/1) iron depletions; very strongly acid.

Range in Characteristics

Solum thickness: 40 to 80 inches
Rock fragments: 0 to 10 percent in the A, E, Bt, Btg, and BCg horizons; 0 to 20 percent in the C and Cg horizons
Soil reaction: Very strongly acid to moderately acid, except in limed areas

A or Ap horizon:
Hue—10YR or 2.5Y
Value—3 to 6
Chroma—2 to 6
Texture—sandy loam, fine sandy loam, or loam

E horizon:
Hue—10YR to 5Y
Value—5 to 7
Chroma—2 to 4
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, or loam

Bt horizon:
Hue—10YR to 2.5Y
Value—4 to 7
Chroma—3 to 6
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—loam, sandy clay loam, or clay loam

Btg horizon:
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—loam, sandy clay loam, or clay loam

BCg horizon (where present):
Hue—10YR to 5Y
Value—5 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, sandy clay loam, or clay loam

Cg horizon:
Hue—10YR to 5Y
Value—5 to 8
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture (fine-earth fraction)—sand, loamy sand, loamy fine sand, or sandy loam

C horizon:
Hue—10YR to 5Y
Value—3 to 8
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive, white, or gray
Texture (fine-earth fraction)—sand, loamy sand, loamy fine sand, or sandy loam

Bibb Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Flood plains along the Blackwater River and drainageways
Parent material: Loamy and sandy alluvium
Drainage class: Poorly drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Chewacla soils, which are somewhat poorly drained
- Buncombe soils, which are excessively drained
- Pactolus soils, which are moderately well drained
- Myatt and Chastain soils, which have more clay in the subsoil
- Remlik, Nevarc, and Winton soils on steeper slopes

Taxonomic Classification

Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents

Typical Pedon

Bibb sandy loam, 0 to 2 percent slopes, frequently flooded; located in Southampton County, Virginia; 3.7 miles northwest from Courtland on Highway VA-35, about 5.7 miles north on Highway VA-606, about 1.4 miles west on Highway VA-607, about 50 feet north in woods; Vicksville, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 50 minutes 20.00 seconds N. and long. 77 degrees 6 minutes 58.00 seconds W.

Ag—0 to 8 inches; very dark grayish brown (10YR 3/2) sandy loam; weak fine granular structure; friable, nonsticky, nonplastic; many fine and medium and few coarse roots; common fine low-continuity interstitial pores; common fine prominent dark yellowish brown (10YR 4/6), moist, masses of oxidized iron; very strongly acid; clear smooth boundary.

Cg1—8 to 14 inches; light brownish gray (2.5Y 6/2) sandy loam; massive; very friable, nonsticky, nonplastic; few fine and medium roots; common fine low-continuity interstitial pores; very strongly acid; clear smooth boundary.

Cg2—14 to 39 inches; light brownish gray (2.5Y 6/2) sandy loam; massive; very friable, nonsticky, nonplastic; common fine low-continuity interstitial pores; many medium prominent brownish yellow (10YR 6/8), moist, masses of oxidized iron; very strongly acid; clear smooth boundary.

Cg3—39 to 50 inches; light brownish gray (2.5Y 6/2) sandy loam; massive; very friable, nonsticky, nonplastic; few fine low-continuity interstitial pores; few medium prominent olive yellow (2.5Y 6/6), moist, masses of oxidized iron; very strongly acid; clear wavy boundary.

Cg4—50 to 60 inches; light brownish gray (2.5Y 6/2) loamy sand; massive; very friable, nonsticky, nonplastic; common medium prominent olive yellow (2.5Y 6/8), moist, masses of oxidized iron; very strongly acid; clear wavy boundary.

Cg5—60 to 68 inches; gray (N 5/0) loamy sand; massive; very friable, nonsticky, nonplastic; very strongly acid; clear wavy boundary.

Cg6—68 to 75 inches; dark gray (N 4/0) loamy sand; massive; very friable, nonsticky, nonplastic; very strongly acid; clear wavy boundary.

Cg7—75 to 84 inches; gray (N 5/0) loamy sand; massive; very friable, nonsticky, nonplastic; very strongly acid.

Range in Characteristics

Thickness of loamy and sandy sediments: 80 inches or more
Reaction: Very strongly acid or strongly acid throughout the profile
Rock fragment content: 0 to 10 percent throughout the profile; may range to 35 percent in thin strata below a depth of 40 inches

Ag horizon:
Hue—10YR or 2.5Y (or neutral with value of 3 to 7)
Value—3 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown or yellow
Texture—sandy loam, sand, loamy sand, fine sandy loam, loam, or silt loam

A horizon (where present):
Hue—7.5YR or 10YR
Value—2 to 5
Chroma—1 to 3

Redoximorphic features—masses of oxidized iron in shades of brown or yellow
Texture—sandy loam, sand, loamy sand, fine sandy loam, loam, or silt loam

Cg horizon:
Hue—10YR to 5Y (or neutral with value of 3 to 7)
Value—3 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow
Fine-earth texture—sandy loam, fine sandy loam, loam, silt loam, or stratified in the upper part of horizon; sand, loamy sand, loamy fine sand, sandy loam, fine sandy loam, loam, silt loam, or stratified in the lower part

Bojac Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Parent material: Loamy and sandy alluvium
Drainage class: Well drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 2 to 6 percent

Associated Soils

- Tarboro soils, which are somewhat excessively drained and have less clay in the subsoil
- State soils, which have more clay in the subsoil
- Munden and Seabrook soils, which are moderately well drained
- Altavista soils, which are moderately well drained and have more clay in the subsoil
- Augusta soils, which are somewhat poorly drained and have more clay in the subsoil
- Nimmo soils, which are poorly drained
- Tomotley soils, which are poorly drained and have more clay in the subsoil

Taxonomic Classification

Coarse-loamy, mixed, semiactive, thermic Typic Hapludults

Typical Pedon

Bojac loamy sand, 2 to 6 percent slopes, very rarely flooded; located in Southampton County, Virginia; about 4.3 miles south of Franklin, 1.1 miles north-northwest of the junction of Highways US-258 and VA-189, about 0.3 mile southwest of the junction of Highways US-258 and VA-690, in a crop field edge; elevation of 27 feet; Franklin, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 37 minutes 32.00 seconds N. and long. 76 degrees 56 minutes 9.00 seconds W.

Ap—0 to 13 inches; light olive brown (2.5Y 5/4) loamy sand; weak medium granular structure; friable, nonsticky, nonplastic; common very fine and fine roots; few fine prominent black (10YR 2/1) manganese coatings with diffuse boundaries; slightly acid; abrupt smooth boundary.

Bt1—13 to 30 inches; yellowish brown (10YR 5/8) sandy loam; moderate medium and coarse subangular blocky structure; friable, nonsticky, nonplastic; common very fine, fine, and medium and few coarse roots; many very fine and fine high-continuity tubular and many fine and medium moderate-continuity interstitial pores; common faint discontinuous light olive brown (2.5Y 5/6) clay bridges between sand grains; few fine prominent black (10YR 2/1) manganese coatings with diffuse boundaries and few fine and medium faint dark yellowish brown (10YR 4/6) and brownish yellow (10YR 6/6) masses of oxidized iron; few fine mica flakes; strongly acid; clear smooth boundary.

Bt2—30 to 37 inches; yellowish brown (10YR 5/6) sandy loam; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; common very fine and fine roots; few fine high-continuity tubular and common very fine and fine moderate-continuity interstitial pores; common faint discontinuous brownish yellow (10YR 6/6) clay bridges between sand grains; few fine mica flakes; 2 percent rounded quartz gravel; strongly acid; clear smooth boundary.

Bt3—37 to 48 inches; yellowish brown (10YR 5/8) sandy loam; weak medium subangular blocky structure; very friable, nonsticky, nonplastic; few very fine and fine roots; common very fine and fine moderate-continuity interstitial and common very fine and fine high-continuity tubular pores; few faint patchy strong brown (7.5YR 5/8) clay bridges between sand grains; common fine and medium faint strong brown (7.5YR 5/8) masses of oxidized iron; few fine mica flakes; 2 percent rounded quartz gravel; few fine prominent white (10YR 8/1) clean sand grains; strongly acid; clear smooth boundary.

C—48 to 66 inches; strong brown (7.5YR 5/8) and yellowish brown (10YR 5/8) sand; single grain; loose, nonsticky, nonplastic; common fine and medium prominent white (10YR 8/1) iron depletions; common fine mica flakes; 5 percent rounded quartz gravel; strongly acid.

Range in Characteristics

Solum thickness: 30 to 65 inches

Soil reaction: Extremely acid to slightly acid, except in limed areas

Rock fragments: 0 to 35 percent in the A, E, Bt, and BC horizons; 0 to 50 percent in the C horizon

Mica content: Few or common in the B and C horizons of most pedons

A or Ap horizon:

Hue—10YR or 2.5Y
Value—3 to 6
Chroma—1 to 4
Fine-earth texture—loamy sand, loamy fine sand, sandy loam, fine sandy loam, or loam

E horizon (where present):

Hue—10YR or 2.5Y
Value—4 to 7
Chroma—4 to 6
Fine-earth texture—loamy sand, loamy fine sand, sandy loam, fine sandy loam, or loam

BA or BE horizon (where present):

Hue—7.5YR to 2.5Y
Value—4 to 7
Chroma—3 to 6
Fine-earth texture—sandy loam, fine sandy loam, or loam

Bt horizon:

Hue—7.5YR or 10YR
Value—4 to 6
Chroma—4 to 8
Redixomorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray below a depth of 40 inches
Fine-earth texture—sandy loam, fine sandy loam, or loam; some pedons have a thin subhorizon of sandy clay loam

BC horizon (where present):
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—4 to 8
Redixomorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Fine-earth texture—loamy sand or loamy fine sand

C horizon:
Hue—7.5YR to 2.5Y
Value—4 to 7
Chroma—3 to 8
Redixomorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive, white, or gray
Fine-earth texture—sand, loamy sand, or loamy fine sand

Buncombe Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Flood plains along the Nottoway and Meherrin Rivers
Parent material: Sandy alluvium
Drainage class: Excessively drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Riverview soils, which are well drained and have more clay in the subsoil
- Chewacla soils, which are somewhat poorly drained and have more clay in the subsoil
- Chastain and Bibb soils, which are poorly drained, are frequently flooded, and have more clay in the profile
- Dorovan soils, which are very poorly drained, frequently flooded, and organic
- Tarboro soils, which are somewhat excessively drained

Taxonomic Classification

Mixed, thermic Typic Udipsamments

Typical Pedon

Buncombe loamy sand, 0 to 2 percent slopes, occasionally flooded; located in Southampton County, Virginia; about 1.6 miles northeast of the junction of Highways VA-672 and VA-684, about 1.3 miles southeast of the junction of Highways VA-650 and VA-671, about 0.5 mile west-northwest of the junction of Highways VA-684 and VA-687, in woodland; elevation of 8 feet; Franklin, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 38 minutes 11.00 seconds N. and long. 76 degrees 59 minutes 28.00 seconds W.

Oi—0 to 2 inches; slightly decomposed plant material; partially decayed pine and oak litter.
A—2 to 7 inches; very dark grayish brown (2.5Y 3/2) loamy sand; moderate medium granular structure; very friable, nonsticky, nonplastic; many fine and medium roots; very strongly acid; clear smooth boundary.
C1—7 to 38 inches; olive yellow (2.5Y 6/6) loamy sand; single grain; loose, nonsticky, nonplastic; common fine and medium roots; very strongly acid; gradual smooth boundary.

C2—38 to 58 inches; pale yellow (2.5Y 7/4) sand; single grain; loose, nonsticky, nonplastic; very strongly acid; gradual smooth boundary.
C3—58 to 84 inches; olive yellow (2.5Y 6/6) gravelly sand; single grain; loose, nonsticky, nonplastic; 20 percent rounded quartz gravel; very strongly acid.

Range in Characteristics

Soil reaction: Very strongly acid to slightly acid
Rock fragments: 0 to 35 percent pebbles, gravel, and cobbles in the C horizon below a depth of 40 inches

A or Ap horizon:
Hue—10YR or 2.5Y
Value—3 to 5
Chroma—2 to 6
Texture—sand, loamy sand, or loamy fine sand

Bw horizon (where present):
Hue—7.5YR to 10Y
Value—4 to 6
Chroma—4 to 8
Texture—sand, loamy sand, or loamy fine sand

C horizon:
Hue—7.5YR to 2.5Y
Value—3 to 8
Chroma—3 to 8
Mottles—shades of gray or white
Fine-earth texture—sand, fine sand, loamy sand, or loamy fine sand in the upper part of horizon; gravelly sand to loam with strata of gravel or cobbles in the lower part

Chastain Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Flood plains along the Nottoway and Meherrin Rivers
Parent material: Clayey and loamy alluvium
Drainage class: Poorly drained
Slowest saturated hydraulic conductivity: Moderately low
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Buncombe soils, which are excessively drained and have less clay in the subsoil
- Riverview soils, which are well drained and have less clay in the subsoil
- Chewacla soils, which are somewhat poorly drained and have less clay in the subsoil
- Tomotley soils, which are poorly drained and have less clay in the subsoil; on stream terraces
- Dorovan soils, which are very drained poorly drained and organic; on stream terraces
- Roanoke soils, which are poorly drained; on stream terraces
- Bibb soils, which are poorly drained and have less clay in the profile; in drainageways and on flood plains

Taxonomic Classification

Fine, mixed, semiactive, acid, thermic Fluvaquentic Endoaquepts

Typical Pedon

Chastain loam, 0 to 2 percent slopes, frequently flooded; located in Southampton County, Virginia; about 0.9 mile west of Courtland, 0.3 mile north-northwest of the junction of Highways US-58, VA-35, and VA-652, about 250 feet northeast of the junction of Highways VA-651 and VA-652, about 180 feet north of the railroad tracks, in woodland; elevation of 18 feet; Courtland, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 43 minutes 3.00 seconds N. and long. 77 degrees 5 minutes 0.00 seconds W.

A—0 to 3 inches; very dark grayish brown (2.5Y 3/2) loam; weak medium granular structure; friable, slightly sticky, slightly plastic; many fine and medium roots; few very fine and fine low-continuity interstitial and few very fine and fine moderate-continuity tubular pores; very strongly acid; clear smooth boundary.

Bg1—3 to 12 inches; dark gray (5Y 4/1) clay loam; weak medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine and medium roots; few very fine and fine moderate-continuity tubular pores; few fine prominent olive yellow (2.5Y 6/6) masses of oxidized iron; very strongly acid; clear wavy boundary.

Bg2—12 to 49 inches; gray (5Y 5/1) clay loam; weak medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine and medium roots; few very fine and fine moderate-continuity tubular pores; few fine prominent olive yellow (2.5Y 6/6) masses of oxidized iron; very strongly acid; clear wavy boundary.

Cg1—49 to 60 inches; gray (5Y 5/1) clay loam; massive; firm, moderately sticky, moderately plastic; few fine and medium roots; few very fine and fine moderate-continuity tubular pores; few medium prominent olive yellow (2.5Y 6/8) masses of oxidized iron; very strongly acid; clear wavy boundary.

Cg2—60 to 70 inches; gray (5Y 5/1) stratified clay loam to sandy clay loam; massive; firm, moderately sticky, moderately plastic; few very fine and fine moderate-continuity tubular pores; few medium prominent olive yellow (2.5Y 6/8) masses of oxidized iron; very strongly acid; clear smooth boundary.

Cg3—70 to 84 inches; light gray (5Y 7/1) clay; massive; firm, moderately sticky, moderately plastic; few very fine and fine moderate-continuity tubular pores; common medium prominent olive yellow (2.5Y 6/8) masses of oxidized iron; very strongly acid.

Range in Characteristics

Soil reaction: Extremely acid to moderately acid

A horizon:

Hue—10YR or 2.5Y (or neutral with value of 3 to 6)
Value—3 to 6
Chroma—1 to 6
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—loam or silt loam

Bg horizon:

Hue—10YR to 5GY (or neutral with value of 4 to 7)
Value—4 to 7
Chroma—1 or 2

Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—clay loam, silty clay loam, clay, or silty clay; particle-size control section has more than 25 percent silt

Cg horizon:
Hue—10YR to 5GY (or neutral with value of 4 to 7)
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy clay loam, clay loam, silty clay loam, clay, or silty clay

Chewacla Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Flood plains along the Nottoway and Meherrin Rivers
Parent material: Loamy alluvium
Drainage class: Somewhat poorly drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Buncombe soils, which are excessively drained and have a sandy subsoil
- Riverview soils, which are well drained and have a sandy subsoil
- Chastain soils, which are poorly drained and have more clay in the subsoil
- Dorovan soils, which are very poorly drained and organic
- Bibb soils, which are poorly drained and have more sand throughout

Taxonomic Classification

Fine-loamy, mixed, active, thermic Fluvaquentic Dystrudepts

Typical Pedon

Chewacla loam, 0 to 2 percent slopes, frequently flooded; located in Southampton County, Virginia; about 3.3 miles west-southwest of the junction of Highways VA-615 and VA-662, about 1.9 miles southwest of the junction of Highways US-58 and VA-711, about 1.6 miles southeast of the junction of Highway US-58 and the Greensville County line, in a sweetgum plantation; elevation of 61 feet; Adams Grove, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 39 minutes 45.00 seconds N. and long. 77 degrees 27 minutes 49.00 seconds W.

Ap—0 to 6 inches; olive brown (2.5Y 4/4) loam; moderate medium granular structure; friable, nonsticky, nonplastic; many very fine, fine, and coarse roots; many very fine and fine high-continuity interstitial and many fine and medium high-continuity tubular pores; few fine prominent irregular black (10YR 2/1) manganese coatings on faces of peds and few fine faint light olive brown (2.5Y 5/4) masses of oxidized iron; few fine mica flakes; very strongly acid; clear smooth boundary.
Bw1—6 to 12 inches; olive brown (2.5Y 4/3) silty clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; many fine roots; many fine, medium, and coarse high-continuity tubular pores; common fine distinct irregular black (10YR 2/1) manganese coatings on faces of peds and common fine faint grayish brown (2.5Y 5/2) iron depletions; few fine mica flakes; moderately acid; clear smooth boundary.

Bw2—12 to 23 inches; strong brown (7.5YR 4/6) loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and medium roots; many fine, medium, and coarse high-continuity tubular pores; common medium prominent grayish brown (10YR 5/2) iron depletions and common fine and medium prominent irregular black (10YR 2/1) manganese coatings on faces of peds; common fine mica flakes; strongly acid; gradual smooth boundary.

Bw3—23 to 32 inches; light olive brown (2.5Y 5/4) loam; weak coarse subangular blocky structure; friable, slightly sticky, slightly plastic; common very fine and fine roots; many fine, medium, and coarse high-continuity tubular pores; common coarse distinct light brownish gray (2.5Y 6/2) iron depletions and common medium prominent irregular black (10YR 2/1) manganese coatings on faces of peds; common medium mica flakes; strongly acid; clear smooth boundary.

Cg1—32 to 40 inches; grayish brown (2.5Y 5/2) silty clay loam; massive; friable, slightly sticky, slightly plastic; many very fine and fine roots; many fine, medium, and coarse high-continuity tubular pores; common fine prominent irregular black (10YR 2/1) manganese coatings throughout, common fine faint gray (2.5Y 6/1) clay depletions, and common medium prominent brownish yellow (10YR 6/8) and yellowish brown (10YR 5/6) masses of oxidized iron; common medium mica flakes; strongly acid; gradual wavy boundary.

Cg2—40 to 45 inches; grayish brown (2.5Y 5/2) silty clay loam; massive; friable, slightly sticky, slightly plastic; few very fine and fine roots; few fine high-continuity tubular pores; common medium prominent yellowish brown (10YR 5/6) and brownish yellow (10YR 6/8) masses of oxidized iron and common fine prominent irregular black (10YR 2/1) manganese coatings throughout; common fine mica flakes; very strongly acid; gradual wavy boundary.

Cg3—45 to 53 inches; grayish brown (2.5Y 5/2) silty clay loam; massive; friable, slightly sticky, slightly plastic; few very fine and fine roots; few fine high-continuity tubular pores; few fine prominent irregular black (10YR 2/1) manganese coatings throughout and common medium prominent yellowish brown (10YR 5/6) and brownish yellow (10YR 6/8) masses of oxidized iron; common fine mica flakes; very strongly acid; clear smooth boundary.

C—53 to 70 inches; dark yellowish brown (10YR 4/6) and light yellowish brown (10YR 6/4) silt loam; massive; friable, slightly sticky, slightly plastic; few very fine and fine roots; few fine moderate-continuity tubular pores; common fine prominent irregular black (10YR 2/1) manganese coatings throughout, common fine distinct strong brown (7.5YR 5/6) masses of oxidized iron, and common medium prominent gray (2.5Y 6/1) iron depletions; common fine mica flakes; very strongly acid; gradual smooth boundary.

C´g—70 to 84 inches; gray (2.5Y 6/1) and light gray (2.5Y 7/1) silt loam; massive; firm, slightly sticky, slightly plastic; few fine moderate-continuity tubular pores; common fine prominent irregular black (10YR 2/1) manganese coatings on surfaces along pores and common medium prominent yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/4) masses of oxidized iron; common fine mica flakes; very strongly acid.

Range in Characteristics

Soil reaction: Very strongly acid to slightly acid
Rock fragments: 0 to 5 percent
Mica flakes: Few to many

A or Ap horizon:
Hue—5YR to 2.5Y
Value—3 to 5
Chroma—1 to 6

Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red
Texture—sandy loam, fine sandy loam, loam, silt loam, or clay loam

Bw horizon:
Hue—5YR to 2.5Y
Value—4 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive, brown, or gray
Texture—sandy loam, fine sandy loam, loam, silt loam, sandy clay loam, clay loam, or silty clay loam

Bg horizon (if it occurs):
Hue—10YR or 2.5Y or neutral
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, loam, silt loam, sandy clay loam, clay loam, or silty clay loam

Cg horizon:
Hue—10YR or 2.5Y (or neutral with value of 4 to 7)
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, loam, silt loam, sandy clay loam, clay loam, or silty clay loam within a depth of 40 inches; loamy fine sand, loamy sand, sandy loam, loam, silty clay loam, or silt loam below a depth of 40 inches

C horizon:
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, loam, silt loam, sandy clay loam, clay loam, or silty clay loam within a depth of 40 inches; loamy fine sand, loamy sand, sandy loam, loam, or silt loam below a depth of 40 inches

Craven Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Marine terraces
Parent material: Clayey marine deposits
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately low
Depth class: Very deep
Slope range: 0 to 10 percent

Associated Soils

- Emporia and Uchee soils, which are well drained
- Nansemond and Slagle soils, which have less clay in the subsoil
- Ocilla soils, which have a thick sandy surface layer

- Yemassee and Myatt soils, which are somewhat poorly drained and poorly drained, respectively
- Nevarc, Remlik, and Winton soils on steeper slopes

Taxonomic Classification

Fine, mixed, subactive, thermic Aquic Hapludults

Typical Pedon

Craven fine sandy loam, 2 to 6 percent slopes; located in Southampton County, Virginia; from the intersection of U.S. Route 58 and Highway VA-653 in Capron, approximately 1.3 miles west on U.S. Route 58, about 200 feet south of U.S. Route 58 in a field; Capron, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 42 minutes 8.00 seconds N. and long. 77 degrees 13 minutes 30.00 seconds W.

Ap—0 to 7 inches; brown (10YR 5/3) fine sandy loam; moderate fine granular structure; friable, nonsticky, nonplastic; few very fine and fine roots; few fine moderate-continuity interstitial pores; slightly acid; abrupt smooth boundary.

Bt1—7 to 15 inches; yellowish brown (10YR 5/6) clay loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine and fine roots; few fine moderate-continuity interstitial pores; few discontinuous clay films on all faces of peds; strongly acid; abrupt smooth boundary.

Bt2—15 to 24 inches; yellowish brown (10YR 5/8) clay; moderate fine and medium subangular blocky structure; firm, moderately sticky, moderately plastic; few very fine and fine roots; few fine moderate-continuity interstitial pores; common distinct continuous clay films on all faces of peds; common fine distinct red (2.5YR 4/8), moist, masses of oxidized iron infused into matrix adjacent to pores; very strongly acid; gradual wavy boundary.

Bt3—24 to 43 inches; light yellowish brown (2.5Y 6/4) clay; moderate medium angular blocky structure; firm, moderately sticky, moderately plastic; few fine moderate-continuity interstitial pores; common prominent continuous clay films on all faces of peds; common medium prominent red (2.5YR 4/8), moist, masses of oxidized iron and common medium prominent gray (10YR 6/1), moist, iron depletions; very strongly acid; gradual wavy boundary.

BCg—43 to 55 inches; light gray (10YR 7/1) clay; weak medium and coarse subangular blocky structure; firm, moderately sticky, moderately plastic; common medium prominent red (2.5YR 4/8), moist, masses of oxidized iron; very strongly acid; gradual wavy boundary.

Cg—55 to 65 inches; light gray (10YR 7/1) clay loam; massive; friable, slightly sticky, slightly plastic; common medium prominent red (2.5YR 4/8), moist, masses of oxidized iron; very strongly acid.

Range in Characteristics

Solum thickness: 40 to 60 inches or more
Rock fragment content: 0 to 3 percent
Reaction: Extremely acid to strongly acid throughout the profile

Ap horizon:
Hue—10YR or 2.5Y
Value—3 to 6
Chroma—1 to 3
Texture—fine sandy loam, silt loam, or loam; clay loam in severely eroded areas

A horizon (where present):
Hue—10YR or 2.5Y
Value—3 to 6

Chroma—1 to 3
Texture—loam, silt loam, very fine sandy loam, or fine sandy loam

E horizon (where present):
Hue—10YR to 5Y
Value—5 to 7
Chroma—2 to 4
Texture—loam, silt loam, fine sandy loam, sandy loam, or very fine sandy loam

BA horizon (where present):
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—3 to 8
Texture—loam, clay loam, silty clay loam, or sandy clay loam

Bt horizon (upper part):
Hue—7.5YR to 2.5Y
Value—5 to 7
Chroma—4 to 8
Texture—clay loam, silty clay loam, silty clay, or clay

Bt horizon (lower part):
Hue—7.5YR to 2.5Y
Value—5 to 7
Chroma—4 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—clay loam, silty clay loam, silty clay, or clay

Btg horizon (where present):
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow
Texture—clay loam, silty clay loam, silty clay, or clay

BCg horizon:
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow
Texture—sandy clay loam, sandy clay, clay loam, silty clay loam, silty clay, or clay

Cg horizon:
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow
Texture—loamy sand, sandy loam, sandy clay loam, clay loam, or loam

C horizon (where present):
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—3 to 6

Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—loamy sand, sandy loam, sandy clay loam, clay loam, or loam

Dorovan Series

Physiographic province: Atlantic Coast Flatwoods
Landform: Flood plains and swamps along the Nottoway River
Parent material: Organic material over loamy alluvium
Drainage class: Very poorly drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Buncombe soils, which are excessively drained mineral soils
- Riverview soils, which are well drained mineral soils
- Chewacla soils, which are somewhat poorly drained mineral soils
- Tomotley, Chastain, and Roanoke soils, which are poorly drained mineral soils

Taxonomic Classification

Dysic, thermic Typic Haplosaprists

Typical Pedon

Dorovan muck, 0 to 2 percent slopes, frequently flooded; located in Southampton County, Virginia; from Franklin, travel approximately 7.25 miles south of the intersection of U.S. Route 58 Bypass and U.S. 258 to the public boat landing on the Nottoway River located south of the General Vaughan Bridge, turn onto the access road, travel 500 feet north, then 500 feet east of the road on the bottomland hardwood flood plain; Riverdale, Virginia USGS 7.5 Minute Quadrangles; lat. 36 degrees 33 minutes 54.00 seconds N. and long. 76 degrees 56 minutes 40.00 seconds W.

Oa1—0 to 17 inches; very dark brown (10YR 2/2) muck; many fine and medium roots; extremely acid; partly decomposed leaves, twigs, and roots mixed with well decomposed organic matter; gradual wavy boundary.
Oa2—17 to 65 inches; very dark gray (10YR 3/1) muck; nonsticky, nonplastic; few partly decomposed limbs and roots; very strongly acid.
2Cg—65 to 80 inches; dark gray (5Y 4/1) sandy loam; massive; nonsticky, nonplastic.

Range in Characteristics

Organic material thickness: 51 to 80 inches or more
Reaction: Extremely acid to very strongly acid in the organic layer; strongly acid or very strongly acid in the 2C horizon

Oe horizon (where present):
Hue—7.5YR or 10YR (or neutral with value of 2 to 4)
Value—2 to 4
Chroma—1 to 3
Texture—40 to 90 percent of the volume is fiber before rubbing; 20 to 60 percent of the volume is fiber when rubbed

Oa and Oi horizons:
Hue—10YR or 2.5Y (or neutral with value of 2 or 3)
Value—2 or 3
Chroma—0 to 3

Texture—10 to 40 percent of the volume is fiber before rubbing; less than 17 percent of the volume is fiber when rubbed

Cg horizon:
Hue—10YR to 5Y (or neutral with value of 2 to 5)
Value—2 to 5
Chroma—1 or 2
Texture—sand, fine sand, loamy sand, sandy loam, fine sandy loam, or clay

Emporia Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Marine terraces
Parent material: Loamy marine deposits
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Low
Depth class: Very deep
Slope range: 0 to 10 percent

Associated Soils

- Rumford and Kenansville soils, which have less clay in the subsoil
- Slagle soils, which are moderately well drained
- Nansemond soils, which have less clay in the subsoil and are moderately well drained
- Myatt and Bibb soils, which are poorly drained
- Uchee soils, which have a thicker sandy surface layer
- Craven soils, which have more silt and clay in the subsoil
- Nevarc and Remlik soils on steeper slopes

Taxonomic Classification

Fine-loamy, siliceous, subactive, thermic Typic Hapludults

Typical Pedon

Emporia fine sandy loam, 2 to 6 percent slopes; located in Southampton County, Virginia; approximately 0.8 mile south of Courtland on Highway VA-35, about 4.6 miles northwest on Highway VA-651, about 1,000 feet north-northeast on a farm road, 500 feet northwest in a field, 1.4 miles east-northeast of the intersection of Highways VA-609 and VA-651 and 1.2 miles northwest of the intersection of Highways VA-757 and VA-651; Sebrell, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 45 minutes 1.00 seconds N. and long. 77 degrees 8 minutes 40.00 seconds W.

Ap—0 to 12 inches; brown (10YR 5/3) fine sandy loam; weak coarse granular structure; very friable, nonsticky, nonplastic; few very fine, fine, and medium roots; common very fine and fine moderate-continuity tubular pores; neutral; abrupt smooth boundary.
E—12 to 17 inches; very pale brown (10YR 7/3) fine sandy loam; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; few very fine roots; common very fine and fine moderate-continuity tubular and few medium moderate-continuity tubular pores; neutral; clear smooth boundary.
Bt1—17 to 33 inches; yellowish brown (10YR 5/6) clay loam; moderate medium subangular blocky structure; firm, slightly sticky, slightly plastic; few very fine roots; few very fine and fine moderate-continuity tubular pores; many distinct clay films on all faces of peds; moderately acid; clear wavy boundary.
Bt2—33 to 40 inches; brownish yellow (10YR 6/6) sandy clay loam; weak medium and coarse subangular blocky structure; firm, slightly sticky, slightly plastic; few fine

roots; common very fine and fine moderate-continuity tubular pores; common distinct clay films on all faces of peds; common medium faint strong brown (7.5YR 5/6), moist, masses of oxidized iron and common medium distinct pale brown (10YR 6/3), moist, masses of oxidized iron; strongly acid; clear wavy boundary.

BC—40 to 51 inches; brownish yellow (10YR 6/8) fine sandy loam; weak coarse subangular blocky structure; firm, nonsticky, slightly plastic; few very fine roots; common very fine and fine moderate-continuity tubular pores; common medium prominent light yellowish brown (10YR 6/4), moist, masses of oxidized iron; strongly acid; abrupt smooth boundary.

Cg1—51 to 60 inches; light brownish gray (10YR 6/2) clay loam; massive; firm, slightly sticky, slightly plastic; few fine moderate-continuity tubular pores; few medium prominent yellowish brown (10YR 5/6), moist, masses of oxidized iron; very strongly acid; gradual wavy boundary.

Cg2—60 to 72 inches; light brownish gray (10YR 6/2) fine sandy loam; massive; very friable, nonsticky, nonplastic; few fine moderate-continuity tubular pores; few medium prominent yellowish brown (10YR 5/6), moist, masses of oxidized iron and many medium prominent reddish yellow (7.5YR 6/8), moist, masses of oxidized iron; very strongly acid.

Range in Characteristics

Solum thickness: 40 to 75 inches

Reaction: Very strongly acid to moderately acid throughout the profile, except in limed areas

Rock fragments: 0 to 15 percent in the A and E horizons; 0 to 35 percent in the B and C horizons

A horizon (where present):

Hue—10YR or 2.5Y

Value—2 to 6

Chroma—2 to 4

Texture—fine sandy loam, loamy sand, loamy fine sand, sandy loam, or loam

Ap horizon:

Hue—10YR or 2.5Y

Value—4 to 6

Chroma—2 to 4

Texture—loamy sand, loamy fine sand, sandy loam, fine sandy loam, or loam

E horizon:

Hue—10YR or 2.5Y

Value—5 to 7

Chroma—3 to 6

Texture—loamy sand, loamy fine sand, sandy loam, fine sandy loam, or loam

BE horizon (where present):

Hue—7.5YR to 2.5Y

Value—5 to 7

Chroma—4 to 6

Fine-earth texture—sandy loam, fine sandy loam, or loam

Bt horizon:

Hue—5YR to 10YR

Value—4 to 6

Chroma—3 to 8

Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow may occur in the lower part of horizon

Fine-earth texture—sandy loam, loam, sandy clay loam, or clay loam; some subhorizons have textures of sandy clay or clay

Btg horizon (where present):
Hue—5YR to 2.5Y (or neutral with value of 4 to 6)
Value—4 to 6
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Fine-earth texture—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

BC horizon:
Hue—2.5YR to 2.5Y
Value—4 to 6
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Fine-earth texture—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

BCg horizon (where present):
Hue—2.5YR to 2.5Y (or neutral with value of 4 to 6)
Value—4 to 6
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam in the fine-earth fraction

C horizon (where present):
Hue—2.5YR to 5Y
Value—3 to 8
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Fine-earth texture—sandy loam, loamy sand, or sandy clay loam or stratified

Cg horizon:
Hue—5YR to 5Y (or neutral with value of 3 to 8)
Value—3 to 8
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Fine-earth texture—sandy loam to clay

Exum Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Marine terraces
Parent material: Loamy and silty marine deposits
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Emporia soils, which are well drained
- Myatt soils, which are poorly drained
- Roanoke soils, which are poorly drained and have more clay in the subsoil
- Slagle soils, which have less silt and more sand in the subsoil
- Yemasee soils, which are somewhat poorly drained
- Winton soils on steeper slopes

Taxonomic Classification

Fine-silty, siliceous, subactive, thermic Aquic Paleudults

Typical Pedon

Exum silt loam, 0 to 3 percent slopes; located in Surry County, Virginia; 1.1 miles southeast of Carsley, 0.6 mile southeast of the junction of Highways VA-614 and VA-615, about 0.3 mile northwest of the junction of Highways VA-603 and VA-615, about 100 feet northeast of Highway VA-615, in a cultivated field; elevation of 115 feet; Dendron, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 37 degrees 5 minutes 5.00 seconds N. and long. 76 degrees 59 minutes 34.00 seconds W.

Ap—0 to 11 inches; grayish brown (10YR 5/2) silt loam; weak fine granular and weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; common fine roots; moderately acid; clear smooth boundary.

Bt1—11 to 24 inches; yellowish brown (10YR 5/6) clay loam; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine roots; few distinct clay films on all faces of peds; strongly acid; clear smooth boundary.

Bt2—24 to 45 inches; yellowish brown (10YR 5/8) clay loam; moderate medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine roots; common distinct clay films on all faces of peds; common medium prominent gray (10YR 6/1) iron depletions and many medium prominent yellowish red (5YR 5/8), strong brown (7.5YR 5/8), and pale brown (10YR 6/3) masses of oxidized iron; very strongly acid; gradual smooth boundary.

Bt3—45 to 57 inches; yellowish brown (10YR 5/8) clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common distinct clay films on all faces of peds; common medium prominent red (2.5YR 4/8) and common medium distinct yellowish red (5YR 5/8) and strong brown (7.5YR 5/8) masses of oxidized iron and common medium prominent gray (10YR 6/1) iron depletions; very strongly acid; clear smooth boundary.

Btg—57 to 70 inches; gray (10YR 6/1) clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common distinct clay films on all faces of peds; many medium prominent yellowish brown (10YR 5/8), yellowish red (5YR 5/8), strong brown (7.5YR 5/8), and red (2.5YR 4/8) masses of oxidized iron; very strongly acid.

Range in Characteristics

Solum thickness: 60 inches or more

Soil reaction: Extremely acid to moderately acid in the A and E horizons (in unlimed areas); extremely acid to strongly acid in the B and C horizons

A horizon (where present):

Hue—10YR or 2.5Y

Value—2 to 6

Chroma—1 to 3

Texture—very fine sandy loam, loam, or silt loam

Ap horizon:
Hue—10YR or 2.5Y
Value—2 to 6
Chroma—1 to 3
Texture—very fine sandy loam, loam, or silt loam

E horizon (where present):
Hue—10YR to 5Y
Value—5 to 7
Chroma—2 to 4
Texture—very fine sandy loam, loam, or silt loam

BE horizon (where present):
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—3 to 8
Texture—fine sandy loam, loam, or silt loam

Bt horizon (upper part):
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow
Texture—loam, silt loam, clay loam, or silty clay loam

Bt horizon (lower part):
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—loam, silt loam, clay loam, or silty clay loam

Btg horizon:
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—loam, silt loam, clay loam, or silty clay loam; silty clay or clay in some pedons below a depth of 40 inches

Kenansville Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Stream terraces along the Blackwater River and marine terraces
Parent material: Loamy and sandy marine deposits and/or alluvium
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 10 percent

Associated Soils

- Emporia and Uchee soils, which have more clay in the subsoil and are shallower to a seasonal high water table

- Slagle and Nansemond soils, which are moderately well drained
- Rumford soils, which have a thinner sandy surface layer

Taxonomic Classification

Loamy, siliceous, subactive, thermic Arenic Hapludults

Typical Pedon

Kenansville loamy sand in an area of Rumford, Kenansville, and Uchee soils, 0 to 6 percent slopes; located in Southampton County, Virginia; from Courtland travel approximately 7 miles northeast on Highway VA-611 to Highway VA-637 (Harris Road), travel 2.2 miles north on Highway VA-637 to a field road on the west side of the road, also 0.65 mile north of the intersection of Highways VA-637 and VA-640 (Beaton Road), travel 0.2 mile west on the field road, in a cultivated field 300 feet west of the field road, also 400 feet north of south woods line, 300 feet east of west woods line, and 300 feet south of north woods line; Sedley, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 45 minutes 43.00 seconds N. and long. 76 degrees 57 minutes 27.00 seconds W.

Ap—0 to 12 inches; olive brown (2.5Y 4/3) loamy sand; weak coarse granular structure; very friable, nonsticky, nonplastic; moderately acid; abrupt smooth boundary.

E—12 to 22 inches; 25 percent pale yellow (2.5Y 7/3) and 75 percent light yellowish brown (2.5Y 6/4) loamy sand; weak coarse subangular blocky structure; very friable, nonsticky, nonplastic; many very fine and fine high-continuity tubular pores; moderately acid; gradual wavy boundary.

Bt—22 to 39 inches; yellowish brown (10YR 5/6) sandy loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; many very fine and fine high-continuity tubular and few coarse high-continuity tubular pores; common clay bridges between sand grains and common clay films between sand grains; very strongly acid; clear wavy boundary.

C1—39 to 45 inches; 25 percent yellow (2.5Y 7/6) and 75 percent olive yellow (2.5Y 6/8) loamy sand; massive; very friable, nonsticky, nonplastic; many very fine and fine high-continuity tubular pores; very strongly acid; clear wavy boundary.

C2—45 to 70 inches; 25 percent olive yellow (2.5Y 6/6) and 75 percent brownish yellow (10YR 6/8) loamy sand; massive; friable, nonsticky, nonplastic; few very fine and fine moderate-continuity tubular pores; common medium faint strong brown (7.5YR 5/8), moist, masses of oxidized iron; strongly acid; clear wavy boundary.

C3—70 to 82 inches; yellowish brown (10YR 5/6) and olive yellow (2.5Y 6/6) loamy sand; massive; friable, nonsticky, nonplastic; common medium prominent strong brown (7.5YR 5/8), moist, masses of oxidized iron and common medium prominent light gray (2.5Y 7/2), moist, iron depletions; strongly acid.

Range in Characteristics

Solum thickness: 40 to 60 inches or more
Rock fragment content: 0 to 3 percent throughout the profile
Reaction: Very strongly acid to moderately acid throughout the profile

A or Ap horizon:
Hue—7.5YR to 2.5Y
Value—3 to 6
Chroma—1 to 4
Texture—loamy sand, loamy fine sand, sand, or fine sand

E horizon:
Hue—10YR or 2.5Y

Value—5 to 8
Chroma—3 to 8
Texture—loamy sand, loamy fine sand, sand, or fine sand

BE horizon (where present):
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—3 to 6
Texture—loamy sand, loamy fine sand, or sandy loam

Bt horizon:
Hue—7.5YR to 2.5Y
Value—5 to 7
Chroma—4 to 8
Texture—sandy loam or fine sandy loam; thin layers of sandy clay loam occur in some pedons

BC or B/C horizon (where present):
Hue—7.5YR to 2.5Y
Value—5 to 7
Chroma—4 to 8
Redoximorphic features—masses of oxidized iron in shades of red, yellow, or brown; iron depletions in shades of olive or gray
Texture—sand, loamy sand, sandy loam, or fine sandy loam

C horizon:
Hue—7.5YR to 2.5Y
Value—4 to 8
Chroma—1 to 8
Redoximorphic features—masses of oxidized iron in shades of red, yellow, or brown; iron depletions in shades of olive or gray
Texture—sand or loamy sand

Munden Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Stream terraces
Parent material: Loamy and sandy marine deposits and/or alluvium
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 6 percent

Associated Soils

- State and Bojac soils, which are well drained
- Augusta soils, which are somewhat poorly drained
- Alaga and Pactolus soils, which have less clay in the subsoil
- Altavista soils, which have more clay in the subsoil
- Nimmo and Tomotley soils, which are poorly drained
- Seabrook soils, which have more sand and less clay in the subsoil
- Winton soils on steeper slopes

Taxonomic Classification

Coarse-loamy, mixed, semiactive, thermic Aquic Hapludults

Typical Pedon

Munden loamy sand, 2 to 6 percent slopes, rarely flooded; located in Southampton County, Virginia; from Franklin at intersection of U.S. Route 258-S and U.S. Route 58 Bypass, travel 8.2 miles south on U.S. Route 258-S and turn west onto Highway VA-686, proceed approximately 1.4 miles and turn north onto a farm path, travel about 500 feet, then 400 feet east-southeast; Riverdale, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 33 minutes 25.00 seconds N. and long. 76 degrees 58 minutes 44.00 seconds W.

Ap—0 to 12 inches; olive brown (2.5Y 4/3) loamy sand; weak coarse subangular blocky structure; very friable, nonsticky, nonplastic; few very fine and fine roots; few medium moderate-continuity interstitial pores; neutral; abrupt smooth boundary.

E—12 to 17 inches; light yellowish brown (10YR 6/4) loamy sand; weak coarse subangular blocky structure; very friable, nonsticky, nonplastic; few fine roots; many medium moderate-continuity interstitial pores; slightly acid; clear smooth boundary.

Bt1—17 to 24 inches; light olive brown (2.5Y 5/6) sandy loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; few fine roots; many very fine and fine moderate-continuity interstitial pores; common medium faint yellowish brown (10YR 5/6), moist, masses of oxidized iron; moderately acid; clear wavy boundary.

Bt2—24 to 36 inches; light yellowish brown (2.5Y 6/4) sandy loam; weak medium and coarse subangular blocky structure; friable, nonsticky, nonplastic; few very fine and fine roots; many medium high-continuity interstitial pores; common medium distinct yellowish brown (10YR 5/6), moist, masses of oxidized iron and common coarse distinct gray (2.5Y 6/1), moist, iron depletions; very strongly acid; gradual wavy boundary.

BC—36 to 65 inches; olive yellow (2.5Y 6/6) sandy loam; weak coarse subangular blocky structure; friable, nonsticky, nonplastic; many fine high-continuity interstitial pores; common medium distinct brownish yellow (10YR 6/8), moist, masses of oxidized iron and many coarse prominent gray (10YR 6/1), moist, iron depletions; very strongly acid.

Range in Characteristics

Solum thickness: 25 to 45 inches
Reaction: Very strongly acid to moderately acid throughout the profile, except in limed areas
Rock fragment content: 0 to 5 percent throughout the profile

Ap horizon:
Hue—10YR or 2.5Y
Value—3 to 5
Chroma—1 to 4
Texture—loamy sand, loamy fine sand, sandy loam, fine sandy loam, or loam

A horizon (where present):
Hue—10YR or 2.5Y
Value—3 to 5
Chroma—1 to 4
Texture—loamy sand, loamy fine sand, sandy loam, fine sandy loam, or loam

E horizon:
Hue—10YR to 5Y
Value—5 to 7

Chroma—2 to 6
Texture—loamy sand, loamy fine sand, sandy loam, fine sandy loam, or loam

BA or BE horizon (where present):
Hue—10YR to 5Y
Value—5 or 6
Chroma—3 to 6
Texture—sandy loam, fine sandy loam, or loam

Bt horizon:
Hue—7.5YR to 2.5Y
Value—3 to 6
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of brown, olive, or gray
Texture—sandy loam, fine sandy loam, or loam; subhorizons of some pedons range to sandy clay loam

Btg horizon (where present):
Hue—7.5YR to 2.5Y or neutral
Value—3 to 6
Chroma—0 to 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of brown, olive, or gray
Texture—sandy loam, fine sandy loam, or loam; subhorizons of some pedons range to sandy clay loam

BC or CB horizon:
Hue—7.5YR to 2.5Y
Value—3 to 6
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of brown, olive, or gray
Texture—loamy sand, fine sandy loam, sandy loam, or loam

BCg or CBg horizon (where present):
Hue—7.5YR to 2.5Y
Value—3 to 6
Chroma—0 to 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of brown, olive, or gray
Texture—loamy sand, fine sandy loam, sandy loam, or loam

C horizon (where present):
Hue—7.5YR or 5Y
Value—5 to 7
Chroma—1 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of brown, olive, or gray
Texture—sand, loamy sand, or sandy loam or stratified

Cg horizon (where present):
Hue—7.5YR to 5Y or neutral
Value—5 to 7
Chroma—0 to 2

Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of brown, olive, or gray
Texture—sandy loam, loamy sand, sand, coarse sand or stratified

Myatt Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Drainageways and depressions on marine terraces
Parent material: Loamy marine deposits
Drainage class: Poorly drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Yemassee soils, which are somewhat poorly drained
- Slagle soils, which are moderately well drained
- Emporia soils, which are well drained
- Bibb soils, which have less clay in the subsoil
- Roanoke soils, which have more clay in the subsoil
- Nansemond soils, which are moderately well drained and have less clay in the subsoil
- Rumford soils, which are well drained and have less clay in the subsoil
- Craven soils, which are moderately well drained and have more clay in the subsoil

Taxonomic Classification

Fine-loamy, siliceous, active, thermic Typic Endoaquults

Typical Pedon

Myatt loam, 0 to 2 percent slopes; located in Southampton County, Virginia; about 1.8 miles west-northwest of the junction of Highway VA-680 and the Hertford County line, 1.1 miles south-southwest of the junction of Highways VA-679 and VA-684, about 0.7 mile east-southeast of the junction of Highways VA-678 and VA-684, in woodland; elevation of 81 feet; Sunbeam, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 32 minutes 55.00 seconds N. and long. 77 degrees 3 minutes 11.80 seconds W.

A—0 to 5 inches; very dark gray (2.5Y 3/1) loam; moderate medium granular structure; friable, nonsticky, nonplastic; many very fine and fine and common medium and coarse roots; common fine moderate-continuity interstitial and tubular pores; very strongly acid; abrupt wavy boundary.
Eg—5 to 12 inches; light brownish gray (2.5Y 6/2) sandy loam; weak medium granular structure; friable, nonsticky, nonplastic; common very fine and fine and common medium and coarse roots; few very fine and fine low-continuity interstitial and tubular pores; few medium prominent olive yellow (2.5Y 6/8) and common medium faint light yellowish brown (2.5Y 6/3) masses of oxidized iron; very strongly acid; clear wavy boundary.
BEg—12 to 19 inches; gray (2.5Y 6/1) sandy loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; few very fine, fine, and medium and common coarse roots; common very fine and fine low-continuity interstitial and tubular pores; few medium prominent strong brown (7.5YR 5/6) and many coarse distinct light yellowish brown (2.5Y 6/3) masses of oxidized iron; very strongly acid; clear wavy boundary.

Btg1—19 to 27 inches; gray (2.5Y 6/1) sandy clay loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common very fine and fine roots and few medium and coarse roots; common very fine and fine moderate-continuity interstitial and tubular pores; few fine prominent olive yellow (2.5Y 6/6) and many medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; very strongly acid; diffuse wavy boundary.

Btg2—27 to 39 inches; gray (2.5Y 6/1) sandy clay loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine, fine, medium, and coarse roots; common very fine and fine moderate-continuity interstitial and tubular pores; common medium prominent strong brown (7.5YR 5/6) and brownish yellow (10YR 6/6) and many medium prominent yellowish red (5YR 5/8) masses of oxidized iron; extremely acid; clear wavy boundary.

BCg—39 to 52 inches; gray (2.5Y 6/1) sandy clay loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; few very fine, fine, and medium roots; common very fine and fine moderate-continuity interstitial and tubular pores; common fine prominent brownish yellow (10YR 6/6) and common medium prominent brownish yellow (10YR 6/6) and strong brown (7.5YR 5/6) masses of oxidized iron; extremely acid; clear wavy boundary.

Cg1—52 to 58 inches; gray (2.5Y 6/1) sandy clay loam; massive; friable, slightly sticky, nonplastic; common very fine and fine moderate-continuity interstitial and tubular pores; few fine prominent brownish yellow (10YR 6/6) and strong brown (7.5YR 5/6) masses of oxidized iron; 5 percent rounded quartz gravel; extremely acid; clear wavy boundary.

Cg2—58 to 80 inches; gray (2.5Y 5/1) sandy loam; massive; friable, slightly sticky, nonplastic; common very fine and fine moderate-continuity interstitial and tubular pores; few fine prominent dendritic yellow (10YR 7/6) masses of oxidized iron; 5 percent rounded quartz gravel; extremely acid.

Range in Characteristics

Solum thickness: 40 to 60 inches

Soil reaction: Very strongly acid to moderately acid in A, Eg, and BEg horizons, except in limed areas; extremely acid to strongly acid in the Btg, BCg, and Cg horizons

Rock fragments: 0 to 3 percent quartz in the A, Eg, BEg, Btg, and BCg horizons; 5 to 25 percent in the Cg horizon

A or Ap horizon:

Hue—10YR or 2.5Y
Value—3 to 6
Chroma—1 or 2
Texture—loamy sand, sandy loam, fine sandy loam, loam, or silt loam

Eg horizon:

Hue—10YR or 2.5Y
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red
Texture—loamy sand, sandy loam, fine sandy loam, loam, or silt loam

BEg horizon:

Hue—10YR or 2.5Y
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red
Texture—loamy sand, sandy loam, fine sandy loam, loam, or silt loam

Btg horizon:
Hue—10YR to 5Y (or neutral with value of 3 to 7)
Value—3 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red
Texture—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam; thin strata of sandy clay are in some pedons; silt content ranges from 20 to 45 percent

BCg horizon:
Hue—10YR or 2.5Y (or neutral with value of 3 to 7)
Value—3 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red
Texture—sandy loam, fine sandy loam, loam, or sandy clay loam

Cg horizon:
Hue—10YR or 2.5Y (or neutral with value of 5 to 8)
Value—5 to 8
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red
Texture (fine-earth fraction)—sandy loam, fine sandy loam, sandy clay loam, or clay loam or stratified with sandy and clayey material

Nansemond Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Marine terraces and stream terraces
Parent material: Loamy and sandy marine deposits and/or alluvium
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 6 percent

Associated Soils

- Rumford soils, which are well drained
- Kenansville soils, which are well drained and have a thicker sandy surface layer
- Emporia soils, which are well drained and have more clay in the subsoil
- Yemassee soils, which are somewhat poorly drained and have more clay in the subsoil
- Myatt soils, which are poorly drained and have more clay in the subsoil
- Slagle and Craven soils, which have more clay in the subsoil
- Alaga soils, which are somewhat excessively drained and have less clay in the subsoil
- Pactolus soils, which have less clay in the subsoil
- Uchee soils, which are well drained, have a thicker sandy surface layer, and have more clay in the subsoil

Taxonomic Classification

Coarse-loamy, siliceous, subactive, thermic Aquic Hapludults

Typical Pedon

Nansemond loamy fine sand, 0 to 2 percent slopes; located in Southampton County, Virginia; about 1.8 miles north-northeast of the junction of Highways US-58 and VA-656, about 1.2 miles north of the junction of Highways VA-652 and VA-757, about 0.3 mile south-southwest of the junction of Highway VA-651 and VA-757, about 130 feet west of the road, in woodland; Capron, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 43 minutes 55.00 seconds N. and long. 77 degrees 8 minutes 2.00 seconds W.

Oi—0 to 1 inch; undecomposed hardwood leaf litter.

A—1 to 3 inches; brown (10YR 4/3) loamy fine sand; weak medium granular structure; very friable, nonsticky, nonplastic; many very fine, fine, medium, and coarse roots; strongly acid; clear smooth boundary.

E—3 to 10 inches; dark grayish brown (2.5Y 4/2) loamy fine sand; weak fine granular structure; very friable, nonsticky, nonplastic; common fine, medium, and coarse roots; strongly acid; clear smooth boundary.

Bt1—10 to 26 inches; light olive brown (2.5Y 5/6) fine sandy loam; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; few fine roots; common very fine and fine moderate-continuity tubular and few medium moderate-continuity tubular pores; common distinct clay films on all faces of peds; very strongly acid; gradual wavy boundary.

Bt2—26 to 37 inches; yellowish brown (10YR 5/8) fine sandy loam; weak fine granular structure; friable, nonsticky, nonplastic; few very fine roots; few fine and medium moderate-continuity tubular pores; few distinct clay films on all faces of peds; common medium prominent light gray (10YR 7/2) iron depletions and common medium distinct strong brown (7.5YR 5/8) masses of oxidized iron; few pockets of light gray (10YR 7/1) loamy sand material; very strongly acid; clear wavy boundary.

BC—37 to 56 inches; light yellowish brown (10YR 6/4) sandy loam; weak medium granular structure; very friable, nonsticky, nonplastic; common very fine and fine moderate-continuity tubular pores; common medium distinct light gray (10YR 7/2) iron depletions; very strongly acid; clear wavy boundary.

C—56 to 65 inches; light brown (7.5YR 6/4) loamy fine sand; massive; very friable, nonsticky, nonplastic; common very fine and fine moderate-continuity tubular pores; common medium distinct brown (7.5YR 5/2) iron depletions; very strongly acid.

Range in Characteristics

Soil reaction: Extremely acid to moderately acid, except in limed areas
Rock fragments: 0 to 5 percent

A or Ap horizon:
Hue—10YR or 2.5Y
Value—3 to 5
Chroma—1 to 4
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

E horizon:
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—2 to 6
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

BE horizon (where present):
Hue—10YR or 2.5Y
Value—5 or 6

Chroma—3 to 6
Texture—sandy loam or fine sandy loam

Bt horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray (below the upper 10 inches of the horizon)
Texture—sandy loam or fine sandy loam; some pedons have thin subhorions of loam or sandy clay loam

Btg horizon (where present):
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam or fine sandy loam

BC horizon:
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—loamy sand, loamy fine sand, or sandy loam

BCg horizon (where present):
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—loamy sand, loamy fine sand, or sandy loam

C horizon:
Hue—7.5YR to 5Y
Value—4 to 8
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sand, fine sand, loamy sand, or loamy fine sand

Cg horizon (where present):
Hue—7.5YR to 5Y (or neutral with value of 4 to 8)
Value—4 to 8
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sand, fine sand, loamy sand, loamy fine sand, or sandy loam

Nevarc Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Scarps and other steep slopes on marine terraces

Parent material: Loamy alluvium and marine deposits
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately low
Depth class: Very deep
Slope range: 15 to 65 percent

Associated Soils

- Emporia, Rumford, Slagle, Nansemond, and Winton soils, which have less clay in the subsoil
- Uchee, Ocilla, and Remlik soils, which have thicker sandy surface layers and less clay in the subsoil
- Bibb soils, which are poorly drained
- Craven soils on less steep slopes

Taxonomic Classification

Fine, mixed, subactive, thermic Aquic Hapludults

Typical Pedon

Nevarc loam in an area of Nevarc-Remlik complex, 15 to 25 percent slopes; located in Surry County, Virginia; 1.3 miles east-southeast of the junction of Highway VA-650 and the Hog Island Wildlife Management Area access road entrance, 0.4 mile southwest of the mouth of Lawnes Creek, 300 feet west of a public boat landing ramp, in a stand of mixed hardwoods; Hog Island, Virginia USGS 7.5 Minute Quadrangle, NAD27; elevation of 25 feet; lat. 37 degrees 8 minutes 20.00 seconds N. and long. 76 degrees 40 minutes 37.00 seconds W.

A—0 to 2 inches; very dark grayish brown (10YR 3/2) loam; moderate medium granular structure; friable, slightly sticky, slightly plastic; many fine and medium roots; very strongly acid; abrupt smooth boundary.

E—2 to 4 inches; pale brown (10YR 6/3) loam; moderate medium granular structure; friable, slightly sticky, slightly plastic; many fine and medium roots; very strongly acid; abrupt smooth boundary.

Bt1—4 to 24 inches; yellowish brown (10YR 5/6) clay loam; moderate medium angular blocky structure; firm, moderately sticky, moderately plastic; many fine and medium roots; common prominent clay films on all faces of peds; common fine prominent light gray (10YR 7/1) iron depletions and common fine distinct strong brown (7.5YR 5/8) masses of oxidized iron; very strongly acid; gradual smooth boundary.

Bt2—24 to 36 inches; strong brown (7.5YR 5/8) and yellowish brown (10YR 5/6) sandy clay loam; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; common fine roots; common prominent clay films on all faces of peds; common medium prominent gray (10YR 6/1) iron depletions; common fine mica flakes; very strongly acid; clear smooth boundary.

BCg—36 to 50 inches; gray (10YR 6/1) sandy clay loam; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; common fine roots; few distinct clay films on all faces of peds; common medium prominent yellowish brown (10YR 5/8) masses of oxidized iron; very strongly acid; gradual smooth boundary.

C—50 to 67 inches; brownish yellow (10YR 6/6) fine sandy loam; massive; friable, moderately sticky, moderately plastic; common fine roots; common medium prominent light gray (10YR 7/2) iron depletions and common medium prominent strong brown (7.5YR 5/8) masses of oxidized iron; common fine and medium mica flakes; very strongly acid; clear smooth boundary.

Cg—67 to 74 inches; light gray (10YR 7/1) fine sandy loam; massive; friable, slightly sticky, slightly plastic; common fine roots; common fine prominent light yellowish brown (10YR 6/4) masses of oxidized iron; very strongly acid.

Range in Characteristics

Soil reaction: Extremely acid to moderately acid (in unlimed areas)
Rock fragments: 0 to 15 percent gravel in the A, E, and B horizons; 0 to 35 percent gravel in the C horizon

A horizon:
Hue—7.5YR to 2.5Y
Value—2 to 6
Chroma—2 to 4
Texture—sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam

E horizon:
Hue—10YR to 5Y
Value—5 to 7
Chroma—3 to 8
Texture—sandy loam, fine sandy loam, very fine sandy loam, loam, or silt loam

BA or BE horizon (where present):
Hue—7.5YR or 10YR
Value—4 to 7
Chroma—4 to 8
Texture—loam, sandy clay loam, clay loam, or silty clay loam

Bt horizon (upper part):
Hue—7.5YR or 10YR
Value—4 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown or yellow
Texture—sandy clay loam, clay loam, silty clay loam, sandy clay, clay, or silty clay

Bt horizon (lower part):
Hue—5YR to 2.5Y
Value—4 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray or white
Texture—sandy clay loam, clay loam, silty clay loam, sandy clay, clay, or silty clay

BC horizon (where present):
Hue—5YR to 2.5Y
Value—4 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray or white
Texture—sandy clay loam, clay loam, silty clay loam, sandy clay, clay, or silty clay

BCg horizon:
Hue—5YR to 2.5Y
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray or white
Texture—sandy clay loam, clay loam, silty clay loam, sandy clay, clay, or silty clay

C horizon:
Hue—5YR to 2.5Y
Value—4 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray or white
Texture (fine-earth fraction)—typically stratified, ranging from sand to clay

Cg horizon:
Hue—5YR to 2.5Y
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray or white
Texture (fine-earth fraction)—typically stratified, ranging from sand to clay

Nimmo Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Parent material: Loamy and sandy alluvium
Drainage class: Poorly drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Munden soils, which are moderately well drained
- Bojac and State soils, which are well drained
- Tarboro soils, which are somewhat excessively drained
- Roanoke, Tomotley, and Augusta soils, which have more clay in the subsoil

Taxonomic Classification

Coarse-loamy, mixed, semiactive, thermic Typic Endoaquults

Typical Pedon

Nimmo sandy loam, 0 to 2 percent slopes; located in Charles City County, Virginia; in an area of woodland, 30 yards south of the junction of Highways VA-600 and VA-106, about 225 yards south-southwest of the C&O Railroad; elevation of 38 feet; Roxbury, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 37 degrees 27 minutes 43.00 seconds N. and long. 77 degrees 8 minutes 32.00 seconds W.

A—0 to 4 inches; black (5Y 2/1) sandy loam; weak fine granular structure; friable, slightly sticky, slightly plastic; many fine roots; common fine and medium tubular and few coarse tubular pores; very strongly acid; clear smooth boundary.
E1—4 to 10 inches; dark gray (5Y 4/1) sandy loam; weak fine granular structure; very friable, slightly sticky, slightly plastic; common fine roots; common fine, medium, and coarse tubular pores; common fine prominent yellowish brown (10YR 5/8) masses of oxidized iron; very strongly acid; clear smooth boundary.
E2—10 to 14 inches; dark gray (10YR 4/1) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; few fine, medium, and coarse roots; common fine and medium tubular and common coarse tubular pores; very strongly acid; clear smooth boundary.
Btg—14 to 32 inches; gray (10YR 5/1) fine sandy loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; few fine roots; few fine black

mineral grains; few feldspar grains; common fine and medium tubular and common coarse tubular pores; few faint clay films on all faces of peds and few faint clay bridges between sand grains; very strongly acid; gradual smooth boundary.

Cg1—32 to 40 inches; gray (10YR 6/1) sand; single grain; loose; discontinuous layers of sandy clay loam; common fine prominent yellowish brown (10YR 5/8) masses of oxidized iron; very strongly acid; clear smooth boundary.

Cg2—40 to 48 inches; gray (10YR 6/1) coarse sand; single grain; loose; few fine black mineral grains; 2 percent rounded quartz gravel; very strongly acid; clear smooth boundary.

Cg3—48 to 64 inches; gray (10YR 5/1) coarse sand; single grain; loose; strongly acid.

Range in Characteristics

Solum thickness: 25 to 45 inches
Reaction: Extremely acid to strongly acid throughout the profile, except in limed areas
Rock fragments: 0 to 3 percent in the A, E, and B horizons; 0 to 20 percent in the C horizons

A or Ap horizon:
Hue—10YR to 5Y
Value—2 to 5
Chroma—1 or 2
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

E horizon:
Hue—10YR to 5Y
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—iron depletions in shades of olive or gray
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

Btg horizon:
Hue—10YR to 5Y (or neutral with value of 4 to 7)
Value—4 to 7
Chroma—1 or 2, dominantly 1
Redoximorphic features (where present)—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, or loam

Cg horizon:
Hue—7.5YR to 2.5Y (or neutral with value of 3 to 8)
Value—3 to 8
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Fine-earth texture—coarse sand, sand, fine sand, loamy sand, or loamy fine sand; strata of finer textures are in some pedons

Ocilla Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Depressions and drainageways on marine terraces
Parent material: Loamy and sandy marine deposits
Drainage class: Somewhat poorly drained
Slowest saturated hydraulic conductivity: Moderately high

Depth class: Very deep
Slope range: 0 to 10 percent

Associated Soils

- Uchee soils, which are well drained
- Rumford and Emporia soils, which are well drained and do not have thick, sandy surface layers
- Slagle and Nansemond soils, which are moderately well drained and do not have thick, sandy surface layers
- Pactolus soils, which are moderately well drained and are sandy throughout

Taxonomic Classification

Loamy, siliceous, semiactive, thermic Aquic Arenic Hapludults

Typical Pedon

Ocilla loamy sand, 0 to 6 percent slopes; located in Southampton County, Virginia; about 0.8 mile northwest of Sedley, 1.0 mile southwest of the junction of Highways VA-641 and VA-645, about 0.6 mile northeast of the junction of Highways VA-632 and VA-643, in woodland; elevation of 85 feet; Sedley, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 46 minutes 45.00 seconds N. and long. 76 degrees 59 minutes 52.00 seconds W.

A—0 to 4 inches; dark grayish brown (10YR 4/2) loamy sand; weak medium granular structure; very friable, nonsticky, nonplastic; many very fine and fine and few medium roots; very strongly acid; clear smooth boundary.

E—4 to 30 inches; pale yellow (2.5Y 7/4) loamy sand; weak coarse subangular blocky structure; very friable, nonsticky, nonplastic; many very fine and fine roots; few medium distinct gray (2.5Y 6/1) iron depletions; very strongly acid; clear smooth boundary.

Bt1—30 to 34 inches; yellowish brown (10YR 5/6) sandy loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; few very fine and fine roots; common medium moderate-continuity interstitial pores; few medium distinct light yellowish brown (2.5Y 6/4) masses of oxidized iron and common medium prominent gray (10YR 6/1) iron depletions; very strongly acid; clear smooth boundary.

Bt2—34 to 42 inches; yellowish brown (10YR 5/6) sandy loam with pockets of sandy clay loam; moderate medium subangular blocky structure; friable, slightly sticky, nonplastic; few very fine roots; common medium moderate-continuity interstitial pores; few faint clay films on surfaces along root channels, few faint clay films on surfaces along pores, and common distinct clay bridges between sand grains; few medium distinct light yellowish brown (2.5Y 6/4) masses of oxidized iron and common medium prominent gray (10YR 6/1) iron depletions; very strongly acid; gradual wavy boundary.

BC—42 to 50 inches; light yellowish brown (2.5Y 6/4) sandy loam with pockets of coarse sand; weak coarse subangular blocky structure; friable, slightly sticky, nonplastic; few very fine roots; common fine low-continuity vesicular and common fine low-continuity interstitial pores; few distinct clay bridges between sand grains; common medium prominent strong brown (7.5YR 5/8) masses of oxidized iron and many coarse distinct gray (10YR 6/1) iron depletions; very strongly acid; gradual wavy boundary.

C1—50 to 58 inches; yellowish brown (10YR 5/6) sandy loam with pockets of sand; massive; friable, nonsticky, nonplastic; few fine roots; few fine low-continuity interstitial pores; many coarse prominent gray (10YR 6/1) iron depletions; very strongly acid; gradual wavy boundary.

C2—58 to 65 inches; yellowish brown (10YR 5/8), yellow (2.5Y 7/6), and strong brown (7.5YR 5/8) sandy loam; massive; friable, nonsticky, nonplastic; few fine roots; common coarse prominent gray (10YR 6/1) iron depletions; very strongly acid.

Range in Characteristics

Solum thickness: 45 to 60 inches
Soil reaction: Very strongly acid or strongly acid
Rock fragments: 0 to 3 percent ironstone nodules

A or Ap horizon:
Hue—10YR or 2.5Y
Value—3 to 5
Chroma—1 or 2
Texture—sand, fine sand, loamy sand, or loamy fine sand

E horizon:
Hue—10YR to 5Y
Value—4 to 8
Chroma—1 to 4
Texture—sand, fine sand, loamy sand, or loamy fine sand

BE horizon (where present):
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—3 to 8
Texture—loamy sand or loamy fine sand

Bt horizon:
Hue—7.5YR to 2.5Y
Value—5 to 7
Chroma—3 to 8
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—fine sandy loam, sandy loam, or sandy clay loam

Btg horizon (where present):
Hue—7.5YR to 5Y
Value—5 to 8
Chroma—1 or 2
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—fine sandy loam, sandy loam, or sandy clay loam with pockets of coarse sandy loam in some areas

BC horizon:
Hue—7.5YR to 5Y
Value—5 to 8
Chroma—3 to 8
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—fine sandy loam, sandy loam, or sandy clay loam with pockets of coarse sand

BCg horizon (where present):
Hue—7.5YR to 5Y
Value—5 to 8
Chroma—1 or 2

Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—fine sandy loam, sandy loam, or sandy clay loam with pockets of coarse sand

C horizon:
Hue—7.5YR to 5Y
Value—5 to 8
Chroma—3 to 8
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, sandy clay loam, sandy clay, or clay with pockets of sand

Cg horizon (where present):
Hue—7.5YR to 5Y
Value—5 to 8
Chroma—1 or 2
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, sandy clay loam, sandy clay, or clay with pockets of sand

The Ocilla soils in this survey area are considered a taxadjunct to the series because the solum is thinner than typical for the series and the clay content of the lower subsoil is less than typical. These differences, however, do not significantly affect the use and management of the soils.

Pactolus Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Drainageways and slight depressions on stream terraces along the Blackwater River
Parent material: Sandy alluvium
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Uchee, Kenansville, Rumford, and Nansemond soils, which are well drained and have more clay in the subsoil
- Alaga soils, which are well drained
- Bibb soils, which are poorly drained
- Munden soils, which have more clay in the subsoil

Taxonomic Classification

Thermic, coated Aquic Quartzipsamments

Typical Pedon

Pactolus loamy fine sand, 0 to 2 percent slopes, rarely flooded; located in Southampton County, Virginia; about 0.9 mile northeast of the junction of Highways VA-618 and VA-621, about 0.7 mile north-northeast of the junction of Highways VA-616 and VA-621, about 0.7 mile north-northwest of the junction of Highway VA-621 and the Isle of Wight County line, in cropland; elevation of 41 feet; Raynor, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 59 minutes 2.50 seconds N. and long. 76 degrees 51 minutes 16.20 seconds W.

Ap—0 to 14 inches; brown (10YR 4/3) loamy fine sand; weak medium granular structure; very friable, nonsticky, nonplastic; common fine and medium roots; very strongly acid; abrupt smooth boundary.
C1—14 to 24 inches; light olive brown (2.5Y 5/4) loamy sand; massive; very friable, nonsticky, nonplastic; few very fine and fine roots; very strongly acid; clear smooth boundary.
C2—24 to 32 inches; light yellowish brown (2.5Y 6/4) loamy sand; massive; very friable, nonsticky, nonplastic; few fine roots; few fine distinct very pale brown (10YR 7/3) masses of oxidized iron; very strongly acid; gradual smooth boundary.
C3—32 to 52 inches; pale yellow (2.5Y 7/4) loamy sand; massive; very friable, nonsticky, nonplastic; few fine roots; common medium distinct light gray (10YR 7/1) iron depletions; very strongly acid; gradual smooth boundary.
C4—52 to 60 inches; olive yellow (2.5Y 6/6) sand; single grain; loose, nonsticky, nonplastic; few fine faint yellow (2.5Y 7/6) masses of oxidized iron and common medium distinct light gray (10YR 7/1) iron depletions; very strongly acid; gradual smooth boundary.
C5—60 to 84 inches; light yellowish brown (2.5Y 6/4) sand; single grain; loose, nonsticky, nonplastic; common medium prominent yellowish brown (10YR 5/8) masses of oxidized iron and common fine distinct light gray (10YR 7/1) iron depletions; very strongly acid.

Range in Characteristics

Thickness of sandy sediments: 80 inches or more
Soil reaction: Extremely acid to strongly acid, except in limed areas

A or Ap horizon:
Hue—10YR or 2.5Y
Value—3 to 6
Chroma—1 to 4
Texture—sand, fine sand, loamy sand, or loamy fine sand

C horizon:
Hue—10YR or 2.5Y
Value—5 to 8
Chroma—3 to 8
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions (below a depth of 20 inches) in shades of olive or gray
Texture—sand, fine sand, loamy sand, or loamy fine sand

Cg horizon (if it occurs):
Hue—10YR or 2.5Y
Value—5 to 8
Chroma—1 or 2
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sand, fine sand, loamy sand, or loamy fine sand

Remlik Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Scarps and other steep slopes on marine terraces
Parent material: Loamy and sandy alluvium and/or marine deposits
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high

Depth class: Very deep
Slope range: 15 to 65 percent

Associated Soils

- Rumford and Emporia soils, which have thinner surface layers; in smoother landscape positions
- Slagle and Nansemond soils, which are shallower to a seasonal high water table; in smoother landscape positions
- Nevarc and Winton soils, which have more clay in the subsoil; in similar landscape positions

Taxonomic Classification

Loamy, siliceous, subactive, thermic Arenic Hapludults

Typical Pedon

Remlik loamy sand in an area of Nevarc and Remlik soils, 15 to 65 percent slopes; located in Southampton County, Virginia; 6,400 feet north-northwest of the intersection of Highways VA-605 and VA-614 (Seacock Corner), 9,000 feet northeast of the intersection of Highways VA-605 and VA-616 (Pulleys Crossroads) in woods on a scarp south of Brantley Swamp; Sedley, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 52 minutes 26.60 seconds N. and long. 76 degrees 55 minutes 59.70 seconds W.

A—0 to 4 inches; dark grayish brown (10YR 4/2) loamy sand; weak fine granular structure; very friable, nonsticky, nonplastic; common fine roots; many fine low-continuity interstitial pores; strongly acid; clear wavy boundary.

E—4 to 35 inches; light yellowish brown (10YR 6/4) loamy sand; single grain; loose, nonsticky, nonplastic; common fine and medium and few coarse roots; common fine tubular pores; strongly acid; abrupt wavy boundary.

Bt—35 to 49 inches; light brown (7.5YR 6/4) sandy loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine moderate-continuity tubular pores; common clay bridges between sand grains; 10 percent quartz gravel; strongly acid; clear smooth boundary.

BC—49 to 66 inches; yellowish brown (10YR 5/6) sandy loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; few fine tubular pores; common medium faint strong brown (7.5YR 5/6), moist, masses of oxidized iron and common medium prominent light gray (10YR 7/1), moist, iron depletions; few fine mica flakes; strongly acid.

Range in Characteristics

Solum thickness: 40 to 65 inches or more
Reaction: Very strongly acid or strongly acid throughout the profile, except in limed areas
Rock fragment content: 0 to 15 percent

A horizon:
Hue—10YR or 2.5Y
Value—2 to 5
Chroma—2 to 4
Texture—sand, fine sand, loamy sand, or loamy fine sand

Ap horizon (where present):
Hue—10YR or 2.5Y
Value—3 to 6
Chroma—2 to 4
Texture—sand, fine sand, loamy sand, or loamy fine sand

E horizon:
Hue—7.5YR to 2.5Y
Value—5 to 7
Chroma—3 to 8
Texture—sand, fine sand, loamy sand, or loamy fine sand

BE horizon (where present):
Hue—10YR to 7.5YR
Value—4 to 6
Chroma—4 to 8
Texture—sandy loam, fine sandy loam, or loam

Bt horizon (upper part):
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—4 to 8
Texture—sandy loam, fine sandy loam, or sandy clay loam

Bt horizon (lower part):
Hue—7.5YR to 2.5Y
Value—4 to 6
Chroma—4 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—sandy loam, fine sandy loam, or sandy clay loam

BC horizon:
Hue—7.5YR to 2.5Y
Value—5 to 7
Chroma—4 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—loamy sand, sandy loam, loamy fine sand, or fine sandy loam

C horizon (where present):
Hue—7.5YR or 10YR
Value—5 to 7
Chroma—2 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—sand, loamy sand, or loamy fine sand; some pedons contain sandy loam or sandy clay loam lamellae

Riverview Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Flood plains along the Nottoway and Meherrin Rivers
Parent material: Loamy alluvium
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Buncombe soils, which have less clay and more sand in the subsoil

- Chewacla soils, which are somewhat poorly drained
- Chastain soils, which are poorly drained

Taxonomic Classification

Fine-loamy, mixed, active, thermic Oxyaquic Dystrudepts

Typical Pedon

Riverview sandy loam, 0 to 2 percent slopes, frequently flooded; located in Southampton County, Virginia; from Branchville, travel 3.6 miles southwest on Highway VA-186, then 200 feet south on a logging road, 300 feet west in woods, 0.7 mile southwest of the intersection of Highways VA-186 and VA-663, about 0.35 mile east-northeast of the point where Highway VA-186 enters Northampton County, North Carolina; Margarettsville, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 32 minutes 44.00 seconds N. and long. 77 degrees 17 minutes 42.00 seconds W.

A1—0 to 10 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; common fine and medium roots; common fine interstitial pores; few fine mica flakes; very strongly acid; abrupt wavy boundary.

A2—10 to 16 inches; brown (10YR 4/3) sandy loam; weak fine and medium subangular blocky structure; friable, nonsticky, nonplastic; common fine roots; common fine interstitial pores; few fine mica flakes; very strongly acid; clear smooth boundary.

Bw1—16 to 30 inches; strong brown (7.5YR 4/6) clay loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine roots; common fine interstitial pores; few fine mica flakes; very strongly acid; clear smooth boundary.

Bw2—30 to 37 inches; strong brown (7.5YR 5/6) clay loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine roots; common fine interstitial pores; few fine mica flakes; very strongly acid; gradual smooth boundary.

BC—37 to 56 inches; strong brown (7.5YR 4/6) and yellowish brown (10YR 5/4) sandy loam; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; few fine roots; common fine interstitial pores; few fine distinct strong brown (7.5YR 5/8), moist, masses of oxidized iron and few fine prominent light brownish gray (2.5Y 6/2), moist, iron depletions; few fine mica flakes; very strongly acid; gradual smooth boundary.

C1—56 to 67 inches; yellowish brown (10YR 5/6) sandy loam; massive; friable, nonsticky, nonplastic; few fine roots; few fine interstitial pores; few fine distinct strong brown (7.5YR 5/8), moist, masses of oxidized iron and common medium prominent light brownish gray (2.5Y 6/2), moist, iron depletions; few fine mica flakes; very strongly acid; clear smooth boundary.

C2—67 to 84 inches; yellowish brown (10YR 5/6) sandy loam; massive; friable, nonsticky, nonplastic; few fine roots; few fine interstitial pores; common medium prominent light brownish gray (2.5Y 6/2), moist, iron depletions and common fine distinct strong brown (7.5YR 4/6), moist, masses of oxidized iron; few fine mica flakes; strongly acid.

Range in Characteristics

Solum thickness: 24 to 60 inches

Reaction: Very strongly acid to slightly acid in surface horizons; very strongly acid to moderately acid in subsurface horizons

Mica content: None to common throughout the profile

A horizon:
Hue—10YR
Value—3 or 4
Chroma—2 to 4
Texture—sandy loam, fine sandy loam, or loam

Bw horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—3 to 8
Redoximorphic features—at depths of 24 inches or more; masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—sandy loam, fine sandy loam, silt loam, loam, sandy clay loam, clay loam, or silty clay loam

BC horizon:
Hue—7.5YR or 10YR
Value—3 to 5
Chroma—3 to 6
Redoximorphic features—at depths of 24 inches or more; masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—sandy loam, fine sandy loam, loam, or sandy clay loam

C horizon:
Hue—7.5YR or 10YR
Value—4 to 6
Chroma—4 to 6
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; and iron depletions in shades of gray
Texture—coarse sand, coarse sandy loam, sandy loam, or fine sandy loam or stratified

Roanoke Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Flood plains and low stream terraces
Parent material: Clayey and loamy alluvium
Drainage class: Poorly drained
Slowest saturated hydraulic conductivity: Low
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Augusta and Yemassee soils, which are somewhat poorly drained and have less clay in the subsoil
- Tomotley, Nimmo, and Myatt soils, which have less clay in the subsoil
- Chastain soils, which are poorly drained and have a less developed subsoil
- Dorovan soils, which are very poorly drained and have thick organic layers

Taxonomic Classification

Fine, mixed, semiactive, thermic Typic Endoaquults

Typical Pedon

Roanoke loam, 0 to 2 percent slopes, occasionally flooded; located in Southampton County, Virginia; about 3.4 miles northwest of the junction of Highways US-258 and

VA-686, about 1.2 miles southeast of the junction of Highways VA-680 and VA-684, about 0.5 mile southeast of the junction of Highways VA-680 and VA-686, in woodland; elevation of 30 feet; Sunbeam, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 34 minutes 34.00 seconds N. and long. 77 degrees 0 minutes 47.00 seconds W.

Oi—0 to 1 inch; slightly decomposed plant material; undecomposed hardwood leaf litter and pine needles.

A—1 to 3 inches; very dark gray (2.5Y 3/1) loam; moderate very coarse granular structure; friable, slightly sticky, slightly plastic; many very fine and fine and common coarse roots; common fine moderate-continuity tubular and few medium moderate-continuity tubular pores; very strongly acid; clear smooth boundary.

Eg—3 to 9 inches; olive gray (5Y 5/2) loam; moderate coarse granular structure; friable, slightly sticky, slightly plastic; common very fine, fine, medium, and coarse roots; many very fine and fine moderate-continuity tubular pores; common fine prominent olive yellow (2.5Y 6/8) masses of oxidized iron; very strongly acid; clear smooth boundary.

Btg1—9 to 18 inches; gray (5Y 5/1) clay; strong medium and coarse subangular blocky structure; firm, moderately sticky, moderately plastic; few very fine, fine, medium, and coarse roots between peds; common very fine and fine low-continuity tubular pores; many faint continuous gray (5Y 5/1) clay films on all faces of peds; common fine prominent yellowish red (5YR 5/8) masses of oxidized iron; very strongly acid; gradual smooth boundary.

Btg2—18 to 40 inches; gray (5Y 5/1) clay; strong medium and coarse subangular blocky structure; very firm, moderately sticky, very plastic; few very fine, fine, medium, and coarse roots between peds; few very fine and fine low-continuity tubular pores; many faint continuous gray (5Y 5/1) clay films on all faces of peds; common fine prominent red (10R 4/8) masses of oxidized iron; very strongly acid; gradual smooth boundary.

BCg—40 to 50 inches; gray (5Y 5/1) and greenish gray (5GY 5/1) clay; weak medium and coarse subangular blocky structure; very firm, moderately sticky, very plastic; few fine and medium roots between peds; few fine and medium low-continuity tubular pores; common faint discontinuous gray (5Y 5/1) clay films on all faces of peds; common fine prominent red (2.5YR 5/8) masses of oxidized iron; very strongly acid; clear irregular boundary.

Cg—50 to 72 inches; light olive gray (5Y 6/2) clay loam; massive; firm, moderately sticky, moderately plastic; few fine low-continuity tubular pores; common coarse prominent yellowish red (5YR 5/8) masses of oxidized iron with diffuse boundaries; common very fine mica flakes; very strongly acid.

Range in Characteristics

Solum thickness: 40 to 60 inches

Soil reaction: Extremely acid to strongly acid in A, Eg, BEg, Btg, and BCg horizons, except in limed areas; extremely acid to slightly acid in the Cg horizon

Rock fragments: 0 to 10 percent quartz gravel in the A, Eg, BEg, Btg, and BCg horizons; 0 to 50 percent quartz gravel in the Cg horizon

A or Ap horizon:
Hue—10YR to 5Y (or neutral with value of 2 to 6)
Value—2 to 6
Chroma—1 or 2
Texture—fine sandy loam, loam, or silt loam

Eg horizon:
Hue—10YR to 5Y (or neutral with value of 4 to 7)
Value—4 to 7

Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red
Texture—fine sandy loam, loam, or silt loam

BEg horizon (if it occurs):
Hue—10YR to 5Y
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—loam, silt loam, clay loam, or silty clay loam

Btg horizon:
Hue—10YR to 5Y (or neutral with value of 4 to 7)
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—clay loam, silty clay loam, clay, or silty clay

BCg horizon:
Hue—10YR to 5Y or 5GY (or neutral with value of 4 to 7)
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy clay loam, clay loam, silty clay loam, sandy clay, or clay

Cg horizon:
Hue—10YR to 5Y (or neutral with value of 4 to 7)
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture (fine-earth fraction)—variable, ranging from sand to clay

Rumford Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Stream terraces along the Blackwater River and marine terraces
Parent material: Loamy and sandy marine deposits and/or alluvium
Drainage class: Well drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 10 percent

Associated Soils

- Emporia and Uchee soils, which have more clay in the subsoil
- Alaga soils, which have less clay in the subsoil
- Slagle and Nansemond soils, which are moderately well drained
- Nevarc and Remlik soils on steeper slopes
- Myatt soils, which are poorly drained

Taxonomic Classification

Coarse-loamy, siliceous, subactive, thermic Typic Hapludults

Typical Pedon

Rumford loamy sand, 2 to 6 percent slopes; located in Surry County, Virginia; 1.3 miles northeast of the junction of Highways VA-10 and VA-634, about 0.6 mile northwest of the junction of Highways VA-634 and VA-636 at Alliance, 50 feet east of an airfield landing strip, in a cultivated field; Surry, Virginia USGS 7.5 Minute Quadrangles, NAD27; elevation of 75 feet; lat. 37 degrees 8 minutes 41.00 seconds N. and long. 76 degrees 47 minutes 24.00 seconds W.

Ap—0 to 11 inches; yellowish brown (10YR 5/4) loamy sand; weak fine granular structure; very friable, nonsticky, nonplastic; common fine roots; slightly acid; abrupt smooth boundary.

Bt1—11 to 25 inches; dark yellowish brown (10YR 4/6) fine sandy loam; moderate medium subangular blocky structure; friable, moderately sticky, slightly plastic; common fine roots; few distinct clay bridges between sand grains; neutral; clear smooth boundary.

Bt2—25 to 38 inches; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine roots; common distinct clay bridges between sand grains; neutral; gradual smooth boundary.

Bt3—38 to 46 inches; yellowish brown (10YR 5/8) fine sandy loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common distinct clay bridges between sand grains; neutral; clear smooth boundary.

BC—46 to 55 inches; yellowish brown (10YR 5/8) loamy sand; moderate medium granular structure; very friable, slightly sticky, nonplastic; few distinct clay bridges between sand grains; slightly acid; gradual smooth boundary.

C—55 to 70 inches; yellowish brown (10YR 5/8) sand; single grain; loose, nonsticky, nonplastic; slightly acid.

Range in Characteristics

Soil reaction: Extremely acid to strongly acid in the A horizon, except in limed areas; extremely acid to neutral in the B horizon, except in limed areas; extremely acid to slightly acid in the C horizon

Rock fragments: 0 to 15 percent in the A, E, and B horizons; 0 to 50 percent in the C horizon

A horizon (where present):

Hue—10YR
Value—3 to 6
Chroma—2 to 4
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

Ap horizon:

Hue—10YR
Value—3 to 6
Chroma—2 to 4
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

E horizon (where present):

Hue—10YR or 2.5Y
Value—4 to 7
Chroma—3 or 4
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

BA or BE horizon (where present):

Hue—5YR to 2.5Y
Value—4 or 5

Chroma—4 to 8
Texture—loamy sand, sandy loam, or fine sandy loam

Bt horizon:
Hue—5YR to 2.5Y
Value—4 to 6
Chroma—4 to 8
Texture—sandy loam, fine sandy loam, or sandy clay loam

BC horizon:
Hue—5YR to 2.5Y
Value—4 or 5
Chroma—4 to 8
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

C horizon:
Hue—10YR or 2.5Y
Value—5 to 8
Chroma—2 to 8
Texture (fine-earth fraction)—sand, loamy sand, sandy loam, or fine sandy loam

Seabrook Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Low stream terraces along the Nottoway and Meherrin Rivers
Parent material: Sandy alluvium
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Bojac soils, which are well drained and have more clay in the subsoil
- Tarboro soils, which are somewhat excessively drained
- Altavista and Munden soils, which have more clay in the subsoil
- Augusta soils, which are somewhat poorly drained and have more clay in the subsoil

Taxonomic Classification

Mixed, thermic Aquic Udipsamments

Typical Pedon

Seabrook loamy sand, 0 to 2 percent slopes; located in Southampton County, Virginia; about 1.5 miles southeast of the junction of Highways VA-35 and VA-670 at Boykins, 1.3 miles south-southwest of the junction of Highways VA-670 and VA-743, about 1.1 miles northeast of the junction of Highway VA-35 and the Northampton County line, in woodland; elevation of 27 feet; Boykins, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 33 minutes 40.00 seconds N. and long. 77 degrees 10 minutes 58.00 seconds W.

A1—0 to 3 inches; very dark grayish brown (10YR 3/2) loamy sand; single grain; loose, nonsticky, nonplastic; many very fine and fine roots; many fine moderate-continuity tubular pores; few fine mica flakes; very strongly acid; clear smooth boundary.

A2—3 to 8 inches; brown (10YR 5/3) loamy sand; single grain; loose, nonsticky, nonplastic; many fine and common very fine roots; many fine moderate-continuity tubular pores; few fine mica flakes; strongly acid; clear smooth boundary.

C1—8 to 25 inches; brownish yellow (10YR 6/6) loamy fine sand; single grain; loose, nonsticky, nonplastic; common fine and few medium roots; common fine moderate-continuity tubular pores; common fine mica flakes; moderately acid; gradual wavy boundary.
C2—25 to 32 inches; light yellowish brown (10YR 6/4) loamy fine sand; single grain; loose, nonsticky, nonplastic; few fine and medium roots; common fine moderate-continuity tubular pores; few medium distinct light gray (10YR 7/2) iron depletions and common fine distinct brownish yellow (10YR 6/8) masses of oxidized iron; common fine mica flakes; moderately acid; diffuse wavy boundary.
Cg—32 to 60 inches; light gray (10YR 7/2) fine sand; single grain; loose, nonsticky, nonplastic; few very fine and fine roots; few fine moderate-continuity tubular pores; common medium distinct brownish yellow (10YR 6/6) masses of oxidized iron; common fine mica flakes; moderately acid.

Range in Characteristics

Thickness of sandy layer: 72 inches or more
Soil reaction: Extremely acid to slightly acid, except in limed areas
Rock fragments: 0 to 10 percent quartz gravel
Mica flakes: None to common

A or Ap horizon:
Hue—10YR or 2.5Y
Value—3 to 5
Chroma—2 to 4
Texture—sand, fine sand, loamy sand, or loamy fine sand

C horizon (upper part):
Hue—10YR to 2.5Y
Value—4 to 7
Chroma—3 to 8
Texture—sand, fine sand, loamy sand, or loamy fine sand

C horizon (lower part):
Hue—10YR to 5Y
Value—5 to 7
Chroma—3 to 4
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sand, fine sand, loamy sand, or loamy fine sand

Cg horizon:
Hue—10YR to 5Y
Value—5 to 7
Chroma—1 or 2
Redoximorphic features—iron masses in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sand, fine sand, loamy sand, or loamy fine sand

Slagle Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Marine terraces
Parent material: Loamy marine deposits
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately low

Depth class: Very deep
Slope range: 0 to 10 percent

Associated Soils

- Emporia, Rumford, Kenansville, and Uchee soils, which are well drained; on backslopes, shoulders, and summits
- Nansemond soils, which have less clay in the subsoil; in similar landscape positions
- Ocilla soils, which have a thicker sandy surface layer; in similar landscape positions
- Yemassee and Myatt soils, which are somewhat poorly drained and poorly drained, respectively; in depressions and drainageways
- Craven soils, which have more clay in the subsoil; in similar landscape positions
- Nevarc and Winton soils, which are moderately well drained

Taxonomic Classification

Fine-loamy, siliceous, subactive, thermic Aquic Hapludults (fig. 3)

Typical Pedon

Slagle fine sandy loam, 0 to 2 percent slopes; located in Southampton County, Virginia; about 0.45 mile east of the intersection of Highways US-58 and VA-757, about 1.6 miles north-northwest of the intersection of Highways US-58 and VA-658; Capron, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 42 minutes 25.00 seconds N. and long. 77 degrees 7 minutes 35.00 seconds W.

Ap—0 to 12 inches; brown (10YR 5/3) fine sandy loam; moderate medium granular structure; very friable, nonsticky, nonplastic; common fine and few medium roots; common very fine and fine moderate-continuity interstitial and common very fine and fine moderate-continuity tubular pores; neutral; abrupt smooth boundary.

E—12 to 15 inches; very pale brown (10YR 7/3) fine sandy loam; weak fine granular structure; very friable, nonsticky, nonplastic; few very fine and fine roots; common very fine and fine moderate-continuity interstitial pores; moderately acid; abrupt smooth boundary.

Bt1—15 to 24 inches; brownish yellow (10YR 6/6) sandy clay loam; weak medium subangular blocky structure; firm, slightly sticky, slightly plastic; few very fine and fine roots; common very fine and fine moderate-continuity interstitial pores; few distinct discontinuous clay films on all faces of peds; strongly acid; abrupt smooth boundary.

Bt2—24 to 34 inches; brownish yellow (10YR 6/6) sandy clay loam; moderate medium subangular blocky structure; firm, slightly sticky, slightly plastic; few very fine roots; few very fine and fine moderate-continuity interstitial pores; common distinct discontinuous clay films on all faces of peds; common medium prominent light gray (10YR 7/2), moist, iron depletions; strongly acid; clear smooth boundary.

Bt3—34 to 50 inches; 30 percent reddish yellow (7.5YR 6/6), 30 percent yellow (10YR 7/6), and 40 percent light gray (10YR 7/1) sandy clay loam; weak medium subangular blocky structure; firm, slightly sticky, slightly plastic; few very fine roots; few fine low-continuity interstitial pores; few distinct discontinuous clay films on all faces of peds; light gray areas are iron depletions; yellow and reddish yellow areas are masses of oxidized iron; strongly acid; gradual smooth boundary.

Bt4—50 to 72 inches; 30 percent yellow (10YR 7/6), 30 percent reddish yellow (7.5YR 6/6), and 40 percent light gray (10YR 7/1) sandy loam; moderate fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine roots; few fine low-continuity interstitial pores; few distinct discontinuous clay films on all faces of peds; light gray areas are iron depletions; yellow and reddish yellow areas are masses of oxidized iron; very strongly acid.

Figure 3.—A representative pedon of Slagle soils. A seasonal high water table is at depths ranging from 1.5 to 3 feet. The grayish colors in the lower part of the soil are iron depletions. Marks on the tape represent increments of 6 inches.

Range in Characteristics

Solum thickness: 40 to 60 inches or more
Reaction: Extremely acid to strongly acid throughout the profile, except in limed areas
Rock fragments: 0 to 5 percent quartz pebbles in the solum; 0 to 15 percent in the C horizon

Ap horizon:
Hue—10YR or 2.5Y
Value—2 to 6
Chroma—1 to 4
Texture—fine sandy loam

A horizon (where present):
Hue—10YR or 2.5Y
Value—2 to 6
Chroma—1 to 4
Texture—loamy sand, loamy fine sand, sandy loam, fine sandy loam, loam, or silt loam

E horizon:
Hue—10YR or 2.5Y
Value—5 to 7
Chroma—3 or 4
Texture—loamy sand, loamy fine sand, sandy loam, fine sandy loam, loam, or silt loam

BA or BE horizon (where present):
Hue—7.5YR to 2.5Y
Value—5 or 6
Chroma—3 to 6
Texture—sandy loam, fine sandy loam, loam, or silt loam

Bt horizon (upper part):
Hue—7.5YR to 2.5YR
Value—5 to 6
Chroma—3 to 6
Redoximorphic features (where present)—masses of oxidized iron in shades of red, yellow, or brown; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

Bt horizon (lower part):
Color—horizon has hue of 7.5YR to 5YR, value of 4 to 7, and chroma of 3 to 8 or is variegated in shades of these colors and colors of the Btg horizon without a dominant matrix color
Redoximorphic features—masses of oxidized iron in shades of red, yellow, or brown; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

Btg horizon (where present):
Color—horizon has hue of 7.5YR to 5Y, value of 4 to 7, and chroma of 1 or 2 or is variegated in shades of these colors and colors of the Bt horizon without a dominant matrix color
Redoximorphic features—masses of oxidized iron in shades of red, yellow, or brown; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

BC horizon (where present):
Color—horizon has hue of 7.5YR to 5Y, value of 4 to 7, and chroma of 1 to 8 or is variegated in shades of these colors and colors of the BCg horizon without a dominant matrix color
Redoximorphic features—masses of oxidized iron in shades of red, yellow, or brown; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, loam, sandy clay loam, clay loam, sandy clay, or clay

BCg horizon (where present):
Color—horizon has hue of 7.5YR to 5Y, value of 4 to 7, and chroma of 0 to 8 or is variegated in shades of these colors and colors of the BC horizon without a dominant matrix color

Redoximorphic features—masses of oxidized iron in shades of red, yellow, or brown; iron depletions in shades of olive or gray
Texture—loamy sand, sandy loam, fine sandy loam, sandy clay loam, sandy clay, or clay or stratified

C horizon (where present):
Color—variable
Redoximorphic features—masses of oxidized iron in shades of red, yellow, or brown; iron depletions in shades of olive or gray
Texture—loamy sand, sandy loam, fine sandy loam, sandy clay loam, sandy clay, or clay or stratified

State Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Parent material: Loamy and sandy alluvium
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 6 percent

Associated Soils

- Tarboro soils, which are somewhat excessively drained and have less clay in the subsoil
- Bojac soils, which have less clay in the subsoil
- Altavista soils, which are moderately well drained
- Munden soils, which are moderately well drained and have less clay in the subsoil
- Augusta soils, which are somewhat poorly drained
- Nimmo soils, which are poorly drained and have less clay in the subsoil
- Winton soils, which are moderately well drained; on steeper slopes

Taxonomic Classification

Fine-loamy, mixed, semiactive, thermic Typic Hapludults

Typical Pedon

State fine sandy loam, 0 to 2 percent slopes, very rarely flooded; located in Southampton County, Virginia; about 0.8 mile southwest of the junction of Highways VA-35 and VA-647 at Sebrell, 1.3 miles south-southwest of the junction of Highways VA-653 and VA-35, about 1.6 miles northeast of the junction of Highway VA-653 and the Nottoway River, in cropland; elevation of 43 feet; Sebrell, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 46 minutes 43.00 seconds N. and long. 77 degrees 8 minutes 19.00 seconds W.

Ap—0 to 10 inches; brown (10YR 5/3) fine sandy loam; weak fine and medium granular structure; friable, nonsticky, nonplastic; many fine and medium roots; many fine and medium high-continuity interstitial and tubular pores; few fine mica flakes; neutral; abrupt smooth boundary.
Bt1—10 to 14 inches; yellowish brown (10YR 5/6) sandy clay loam; moderate medium and coarse subangular blocky structure; friable, slightly sticky, slightly plastic; many fine and medium roots; many fine and medium high-continuity interstitial and tubular pores; common distinct strong brown (7.5YR 4/6) clay films on all faces of peds; few fine mica flakes; moderately acid; clear wavy boundary.
Bt2—14 to 40 inches; strong brown (7.5YR 5/6) sandy clay loam; moderate medium

and coarse subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine roots; many fine and medium moderate-continuity interstitial pores; common distinct clay films on all faces of peds; common fine mica flakes; strongly acid; gradual wavy boundary.

Bt3—40 to 50 inches; strong brown (7.5YR 5/6) sandy clay loam; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine roots between peds; few fine and medium high-continuity tubular pores; common distinct clay films on all faces of peds; common fine faint reddish yellow (7.5YR 6/8) masses of oxidized iron; common fine mica flakes; very strongly acid; clear wavy boundary.

BC—50 to 56 inches; brownish yellow (10YR 6/8) and yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few fine and medium moderate-continuity interstitial pores; few distinct clay films on all faces of peds; common fine mica flakes; strongly acid; gradual wavy boundary.

C1—56 to 64 inches; yellowish brown (10YR 5/6) and brownish yellow (10YR 6/8) sandy loam; massive; friable, nonsticky, nonplastic; common fine moderate-continuity interstitial pores; common fine mica flakes; strongly acid; clear wavy boundary.

C2—64 to 84 inches; yellow (2.5Y 7/6) sand; single grain; loose, nonsticky, nonplastic; slightly acid.

Range in Characteristics

Solum thickness: 30 to 60 inches or more

Soil reaction: Extremely acid to strongly acid in the A, E, BA, BE, and Bt horizons, except in limed areas; extremely acid to slightly acid in the BC and C horizons

Rock fragments: 0 to 2 percent quartz gravel in the A, E, BA, BE, Bt, and BC horizons; 0 to 25 percent quartz gravel in the C horizon

Mica flakes: None to common

A or Ap horizon:

Hue—10YR or 2.5Y
Value—3 to 6
Chroma—2 to 6
Texture—loamy sand, sandy loam, fine sandy loam, or loam

E horizon (if it occurs):

Hue—10YR or 2.5Y
Value—5 to 7
Chroma—3 to 6
Texture—loamy sand, sandy loam, fine sandy loam, or loam

BA or BE horizon (if it occurs):

Hue—7.5YR or 10YR
Value—4 to 6
Chroma—4 to 8
Texture—sandy loam or fine sandy loam

Bt horizon:

Hue—7.5YR or 10YR
Value—4 to 6
Chroma—4 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red in the lower part of the horizon; iron depletions in shades of brown, olive, or gray
Texture—loam, sandy loam, sandy clay loam, or clay loam

BC horizon:
Hue—7.5YR to 2.5Y
Value—4 to 6
Chroma—4 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of brown, olive, or gray
Texture—sandy loam, fine sandy loam, loam, or sandy clay loam

C horizon:
Hue—7.5YR to 2.5Y
Value—4 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of brown, olive, or gray
Texture (fine-earth fraction)—sand, loamy sand, or sandy loam

Tarboro Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Stream terraces along the Nottoway and Meherrin Rivers
Parent material: Sandy alluviim
Drainage class: Somewhat excessively drained
Slowest saturated hydraulic conductivity: High
Depth class: Very deep
Slope range: 0 to 6 percent

Associated Soils

- Bojac and State soils, which are well drained and have more clay in the subsoil
- Altavista soils, which are moderately well drained and have more clay in the subsoil
- Seabrook soils, which are moderately well drained
- Buncombe soils, which are excessively drained; on river levees
- Nimmo soils, which are poorly drained and have more clay in the subsoil

Taxonomic Classification

Mixed, thermic Typic Udipsamments

Typical Pedon

Tarboro loamy sand, 0 to 6 percent slopes; located in Southampton County, Virginia; about 1.6 miles north-northwest of Courtland, 1.1 miles northwest of the junction of Highways VA-35 and VA-616, about 0.6 mile southwest of the junction of Highways VA-35 and VA-647, in woodland; elevation of 37 feet; Courtland, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 44 minutes 10.00 seconds N. and long. 77 degrees 5 minutes 15.00 seconds W.

Oi—0 to 1 inch; slightly decomposed plant material.
A—1 to 8 inches; dark brown (10YR 3/3) loamy sand; weak fine granular structure; very friable, nonsticky, nonplastic; common very fine and fine roots; strongly acid; abrupt wavy boundary.
C1—8 to 23 inches; brownish yellow (10YR 6/6) sand; single grain; loose, nonsticky, nonplastic; common very fine and fine roots; moderately acid; gradual wavy boundary.
C2—23 to 35 inches; brownish yellow (10YR 6/8) sand; single grain; loose, nonsticky, nonplastic; few very fine roots; moderately acid; diffuse wavy boundary.
C3—35 to 56 inches; strong brown (7.5YR 5/8) sand; single grain; loose, nonsticky, nonplastic; few very fine roots; moderately acid; diffuse wavy boundary.

C4—56 to 84 inches; strong brown (7.5YR 5/8) and very pale brown (10YR 7/4) sand; single grain; loose, nonsticky, nonplastic; few very fine roots; strongly acid.

Range in Characteristics

Thickness of sandy material: 80 inches or more
Soil reaction: Strongly acid to slightly acid, except in limed areas
Rock fragments: 0 to 20 percent quartz gravel in the C horizon

A or Ap horizon:
Hue—7.5YR or 10YR
Value—3 to 8
Chroma—2 to 6
Texture—sand, loamy sand, or loamy fine sand

Bw horizon (if it occurs):
Hue—7.5YR or 10YR
Value—5 to 7
Chroma—6 or 8
Texture—sand, loamy sand, or loamy fine sand

C horizon:
Hue—7.5YR to 2.5Y
Value—4 to 7
Chroma—2 to 8 (chroma 2 colors are of uncoated sand grains and are not a redoximorphic feature)
Texture (fine-earth fraction)—sand, loamy sand, or loamy fine sand

Tomotley Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Drainageways and slight depressions on stream terraces along the Nottoway and Meherrin Rivers
Parent material: Loamy and sandy alluvium
Drainage class: Poorly drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Augusta soils, which are somewhat poorly drained
- Nimmo soils, which have less clay in the subsoil
- Chastain and Roanoke soils, which have more clay in the subsoil
- Dorovan soils, which are poorly drained and have a thick organic layer
- Altavista soils, which are moderately well drained
- State soils, which are well drained
- Bojac soils, which are well drained and have less clay in the subsoil

Taxonomic Classification

Fine-loamy, mixed, semiactive, thermic Typic Endoaquults

Typical Pedon

Tomotley sandy loam, 0 to 2 percent slopes, rarely flooded; located in Southampton County, Virginia; about 0.7 mile north-northwest of the junction of Highways VA-684 and VA-688, about 1.1 miles west-southwest of the junction of Highways US-58 and US-258, about 0.5 mile east-northeast of the junction of Highway VA-688 and the

Seaboard Railroad, 300 feet south of the railroad, in woodland; elevation of 27 feet; Franklin, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 39 minutes 35.00 seconds N. and long. 76 degrees 57 minutes 47.00 seconds W.

Ap—0 to 8 inches; very dark grayish brown (2.5Y 3/2) sandy loam; weak fine and medium granular structure; friable, nonsticky, nonplastic; many fine and medium and common coarse roots; many fine moderate-continuity interstitial pores; very strongly acid; clear wavy boundary.

Eg—8 to 12 inches; grayish brown (2.5Y 5/2) sandy loam; weak coarse subangular blocky structure; friable, nonsticky, nonplastic; many fine and medium and common coarse roots; many fine moderate-continuity interstitial pores; common medium faint light brownish gray (2.5Y 6/2) iron depletions and common medium prominent olive yellow (2.5Y 6/6) masses of oxidized iron; very strongly acid; clear wavy boundary.

Btg1—12 to 35 inches; light brownish gray (2.5Y 6/2) sandy clay loam; moderate medium and coarse subangular blocky structure; friable, slightly sticky, slightly plastic; common fine roots; common fine moderate-continuity interstitial and common fine and medium high-continuity tubular pores; common distinct continuous clay films on all faces of peds; few medium prominent olive yellow (2.5Y 6/8) masses of oxidized iron; very strongly acid; clear wavy boundary.

Btg2—35 to 48 inches; light brownish gray (2.5Y 6/2) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and medium roots; common fine moderate-continuity interstitial and common fine and medium high-continuity tubular pores; common distinct continuous clay films on all faces of peds; few medium prominent olive yellow (2.5Y 6/6) masses of oxidized iron; very strongly acid; clear wavy boundary.

BCg—48 to 60 inches; light brownish gray (2.5Y 6/2) sandy loam; weak coarse subangular blocky structure; friable, nonsticky, nonplastic; few fine roots; common fine moderate-continuity interstitial pores; very strongly acid; clear wavy boundary.

Cg—60 to 84 inches; gray (2.5Y 5/1) loamy coarse sand; single grain; loose, nonsticky, nonplastic; very strongly acid.

Range in Characteristics

Solum thickness: 30 to 60 inches or more

Soil reaction: Extremely acid to strongly acid in the A, Eg, BEg, and Btg horizons; extremely acid to moderately acid in the BCg and Cg horizons

Rock fragments: 0 to 5 percent quartz gravel in the A, Eg, BEg, Btg, and BCg horizons

Mica flakes: None to common in the Btg, BCg, and Cg horizons

A or Ap horizon:

Hue—10YR to 5Y (or neutral with value of 2 to 4)
Value—2 to 4
Chroma—1 or 2
Texture—sandy loam, fine sandy loam, or loam

Eg horizon:

Hue—10YR or 2.5Y (or neutral with value of 4 to 8)
Value—4 to 8
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, or loam

BEg horizon (if it occurs):

Hue—10YR or 2.5Y (or neutral with value of 4 to 7)
Value—4 to 7

Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, or loam

Btg horizon:
Hue—10YR to 5Y (or neutral with value of 4 to 7)
Value—4 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

BCg horizon:
Hue—10YR to 5Y (or neutral with value of 4 to 8)
Value—4 to 8
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, loam, sandy clay loam, or clay loam

Cg horizon:
Hue—10YR to 5Y (or 5BG and 5GY with value of 4 to 8 and chroma of 1 or neutral with value of 4 to 8)
Value—4 to 8
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—variable, ranging from sand to clay

Uchee Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Stream terraces along the Blackwater River and marine terraces
Parent material: Loamy and sandy marine deposits and/or alluvium
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 15 percent

Associated Soils

- Rumford and Emporia soils, which have thinner surface layers
- Nansemond soils, which have thinner surface layers and are moderately well drained
- Alaga and Pactolus soils, which have more sand in the lower part of the subsoil
- Kenansville soils, which are well drained
- Slagle and Craven soils, which are moderately well drained
- Ocilla soils, which are somewhat poorly drained
- Nevarc, Remlik, and Winton soils on steep slopes

Taxonomic Classification

Loamy, kaolinitic, thermic Arenic Kanhapludults

Typical Pedon

Uchee loamy sand, 0 to 6 percent slopes; located in Southampton County, Virginia;

about 0.95 mile northeast of the intersection of Highways VA-658 and VA-673, about 1.9 miles south-southwest of the intersection of Highways VA-658 and VA-675; Courtland, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 38 minutes 33.00 seconds N. and long. 77 degrees 7 minutes 13.00 seconds W.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) loamy sand; weak fine granular structure; very friable, nonsticky, nonplastic; common very fine and fine roots; strongly acid; abrupt smooth boundary.

E—6 to 24 inches; light yellowish brown (10YR 6/4) loamy sand; weak fine granular structure; very friable, nonsticky, nonplastic; common fine roots; strongly acid; clear smooth boundary.

Bt1—24 to 35 inches; brownish yellow (10YR 6/6) sandy loam; weak fine granular structure; friable, nonsticky, nonplastic; common very fine and fine roots; common fine moderate-continuity tubular pores; common clay bridges between sand grains; very strongly acid; clear smooth boundary.

Bt2—35 to 45 inches; yellowish brown (10YR 5/6) sandy loam; weak fine subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine and fine roots; common fine moderate-continuity interstitial pores; common clay bridges between sand grains; very strongly acid; clear smooth boundary.

Bt3—45 to 50 inches; yellowish brown (10YR 5/8) sandy clay loam; weak medium subangular blocky structure; firm, slightly sticky, slightly plastic; common fine moderate-continuity interstitial pores; common clay bridges between sand grains; few fine faint yellowish red (5YR 5/8), moist, masses of oxidized iron; very strongly acid; gradual smooth boundary.

BC—50 to 65 inches; yellowish brown (10YR 5/8) sandy clay loam; weak medium subangular blocky structure; friable, moderately sticky, slightly plastic; common fine moderate-continuity interstitial pores; very few faint patchy clay films on all faces of peds; few fine prominent light gray (10YR 7/2), moist, iron depletions and common fine faint yellowish red (5YR 5/8), moist, masses of oxidized iron; very strongly acid.

Range in Characteristics

Solum thickness: 40 to 60 inches or more
Reaction: Very strongly acid or strongly acid throughout the profile
Rock fragment content: 0 to 5 percent gravel throughout the profile

A horizon (where present):
Hue—10YR or 2.5Y
Value—3 to 6
Chroma—2 to 4
Texture—loamy sand, loamy fine sand, or sand

Ap horizon:
Hue—10YR or 2.5Y
Value—3 to 6
Chroma—2 to 4
Texture—loamy sand, loamy fine sand, or sand

E horizon:
Hue—10YR or 2.5Y
Value—4 to 7
Chroma—3 to 6
Texture—sand, loamy coarse sand, loamy sand, or loamy fine sand

BE horizon (where present):
Hue—7.5YR or 10YR
Value—4 to 7

Chroma—4 to 8
Texture—loamy sand or sandy loam

Bt horizon (upper part):
Hue—7.5YR or 10YR
Value—5 to 7
Chroma—4 to 8
Redoximorphic features (where present)—masses of oxidized iron in shades of red, brown, or yellow
Texture—sandy loam or sandy clay loam

Bt horizon (lower part):
Hue—7.5YR or 10YR
Value—5 or 7
Chroma—4 to 8
Redoximorphic features (where present)—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—sandy clay loam, sandy clay, or clay

BC horizon:
Hue—7.5YR or 10YR
Value—5 to 7
Chroma—4 to 8
Redoximorphic features (where present)—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—loamy sand, sandy loam, or sandy clay loam

C horizon (where present):
Hue—10YR to 2.5Y
Value—4 to 8
Chroma—4 to 8
Redoximorphic features—(where present) masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray
Texture—loamy sand, fine sandy loam, sandy loam, sandy clay loam, or stratified

Udorthents

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Variable
Parent material: Fill material, disturbed soil material
Drainage class: Variable
Slowest saturated hydraulic conductivity: Unspecified
Depth class: Very deep
Slope range: 0 to 2 percent

Typical Pedon

The properties and characteristics of Udorthents vary to the extent that they do not have a typical profile. Udorthents formed when soils were disturbed and mixed by excavation or filling. Textures range from loamy to sandy. Areas range from slightly compacted to severely compacted. Asphalt, concrete, and other foreign materials may occur throughout the material.

Winton Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Bluffs and escarpments on stream terraces along the Nottoway River

Parent material: Loamy and sandy marine deposits and/or alluvium
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 15 to 65 percent

Associated Soils

- State and Bojac soils, which are well drained
- Altavista soils, which that are moderately well drained
- Augusta soils, which are somewhat poorly drained
- Roanoke soils, which are poorly drained
- Munden soils, which have less clay in the subsoil
- Nevarc and Craven soils, which have more clay in the subsoil

Taxonomic Classification

Fine-loamy, mixed, semiactive, thermic Aquic Hapludults

Typical Pedon

Winton fine sandy loam, 15 to 65 percent slopes; located in Southampton County, Virginia; about 5,800 feet west-northwest of the Highway US-258 bridge over the Nottoway River (General Vaughan Bridge), 2 miles northeast of the intersection of Highways VA-686 and VA-685, about 350 feet south of the Nottoway River and 120 feet south of a logging road in pine woods; Riverdale, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 34 minutes 27.00 seconds N. and long. 76 degrees 57 minutes 49.80 seconds W.

A1—0 to 5 inches; dark grayish brown (2.5Y 4/2) fine sandy loam; moderate medium granular structure; very friable, nonsticky, nonplastic; many fine, medium, and coarse roots; many fine and medium interstitial pores; few fine mica flakes; strongly acid; abrupt smooth boundary.

A2—5 to 9 inches; light olive brown (2.5Y 5/3) fine sandy loam; moderate medium granular structure; very friable, nonsticky, nonplastic; many fine, medium, and coarse roots; many fine and medium interstitial pores; few fine mica flakes; strongly acid; abrupt smooth boundary.

E—9 to 14 inches; light yellowish brown (2.5Y 6/4) sandy loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; many fine, medium, and coarse roots; many fine and medium tubular pores; few fine mica flakes; strongly acid; clear smooth boundary.

Bt1—14 to 22 inches; olive yellow (2.5Y 6/8) sandy clay loam; weak fine and medium subangular blocky structure; friable, nonsticky, slightly plastic; few very fine and fine and many medium and coarse roots; many fine and medium tubular pores; many distinct patchy clay films on vertical faces of peds; common fine distinct strong brown (7.5YR 5/8), moist, masses of oxidized iron on surfaces along root channels; few fine mica flakes; strongly acid; clear wavy boundary.

Bt2—22 to 35 inches; light yellowish brown (2.5Y 6/4) clay loam; moderate medium subangular blocky structure; friable, moderately sticky, slightly plastic; many medium and coarse roots; many fine and medium tubular pores; many prominent continuous clay films on vertical faces of peds; many fine distinct light gray (2.5Y 7/1), moist, iron depletions and many fine prominent strong brown (7.5YR 5/8), moist, masses of oxidized iron; few fine mica flakes; strongly acid; clear smooth boundary.

BC—35 to 56 inches; light olive brown (2.5Y 5/4) sandy loam; weak medium subangular blocky structure; friable, nonsticky, nonplastic; many fine distinct light gray (2.5Y 7/1), moist, iron depletions; few fine mica flakes; strongly acid; gradual wavy boundary.

C—56 to 70 inches; light yellowish brown (2.5Y 6/4) loamy sand; massive; friable, nonsticky, nonplastic; common fine prominent brownish yellow (10YR 6/6), moist, and many fine prominent yellowish red (5YR 5/8), moist, masses of oxidized iron; few fine mica flakes; very strongly acid.

Range in Characteristics

Solum thickness: 40 to 65 inches
Reaction: Extremely acid to moderately acid throughout the profile
Rock fragment content: 0 to 5 percent
Mica content: Few or common in the B and C horizons

A horizon:
Hue—7.5YR to 2.5Y
Value—3 to 5
Chroma—1 to 4
Texture—sandy loam, fine sandy loam, or loam

E horizon:
Hue—7.5YR to 2.5Y
Value—4 to 7
Chroma—2 or 6
Texture—sandy loam, fine sandy loam, or loam

Bt horizon:
Hue—7.5YR to 2.5Y
Value—4 to 7
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray or olive
Texture—sandy loam, fine sandy loam, sandy clay loam, or clay loam

Btg horizon (where present):
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray or olive
Texture—sandy loam, fine sandy loam, sandy clay loam, or clay loam

BC horizon:
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, and yellow; iron depletions in shades of gray or olive
Texture—sandy loam, fine sandy loam, loamy sand, loamy fine sand, or sandy clay loam

BCg horizon (where present):
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray or olive
Texture—sandy loam, fine sandy loam, loamy sand, or loamy fine sand

C horizon:
Hue—10YR or 2.5Y

Value—3 to 8
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray or olive
Texture—sand to clay and commonly stratified

Cg horizon (where present):
Hue—10YR or 2.5Y
Value—4 to 6
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of red, brown, or yellow; iron depletions in shades of gray or olive
Texture—sand, loamy sand, sandy loam, or sandy clay loam or stratified

Yemassee Series

Physiographic province: Southern Coastal Plain and Atlantic Coast Flatwoods
Landform: Drainageways and depressions on stream terraces and marine terraces
Parent material: Loamy marine deposits and/or loamy alluvium
Drainage class: Somewhat poorly drained
Slowest saturated hydraulic conductivity: Moderately high
Depth class: Very deep
Slope range: 0 to 2 percent

Associated Soils

- Emporia soils, which are well drained
- Slagle soils, which are moderately well drained
- Myatt soils, which are poorly drained
- Roanoke soils, which are poorly drained and have more clay in the subsoil

Taxonomic Classification

Fine-loamy, siliceous, semiactive, thermic Aeric Endoaquults

Typical Pedon

Yemassee fine sandy loam, 0 to 2 percent slopes; located in Southampton County, Virginia; about 1.3 miles southeast of the junction of Highway VA-35 and the Sussex County line, 1.1 miles west-northwest of the junction of Highways VA-606 and VA-607, about 0.9 mile east of the south junction of Highways VA-35 and VA-607, in woodland; elevation of 45 feet; Vicksville, Virginia USGS 7.5 Minute Quadrangles, NAD27; lat. 36 degrees 50 minutes 25.00 seconds N. and long. 77 degrees 6 minutes 51.00 seconds W.

A—0 to 4 inches; grayish brown (10YR 5/2) fine sandy loam; weak medium granular structure; friable, slightly sticky, slightly plastic; many very fine and fine, common medium, and few coarse roots; common medium moderate-continuity tubular pores; very strongly acid; clear smooth boundary.
E—4 to 15 inches; pale brown (10YR 6/3) fine sandy loam; weak fine granular structure; friable, slightly sticky, slightly plastic; many very fine and fine and few medium and coarse roots; common medium moderate-continuity tubular pores; few medium prominent strong brown (7.5YR 5/8) and common medium distinct yellowish brown (10YR 5/6) masses of oxidized iron; very strongly acid; clear smooth boundary.
Btg—15 to 40 inches; light brownish gray (10YR 6/2) sandy clay loam; weak medium subangular blocky structure; friable, moderately sticky, moderately plastic; few

very fine and fine roots; common fine and medium high-continuity tubular pores; common distinct continuous clay films on surfaces along root channels and common distinct continuous clay films on all faces of peds; common medium prominent strong brown (7.5YR 5/8) and common medium distinct yellowish brown (10YR 5/6) masses of oxidized iron; very strongly acid; clear smooth boundary.

BCg—40 to 60 inches; gray (10YR 6/1) sandy loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine and fine roots; common very fine and fine moderate-continuity tubular pores; few faint patchy clay films on all faces of peds; few medium distinct yellowish brown (10YR 5/6), few fine prominent red (10R 4/8), and common medium prominent strong brown (7.5YR 5/8) masses of oxidized iron; very strongly acid.

Range in Characteristics

Solum thickness: 40 to 70 inches or more

Soil reaction: Extremely acid to slightly acid in the A and E horizons; extremely acid to strongly acid in the Bt, Btg, BCg, and Cg horizons

A or Ap horizon:

Hue—10YR or 2.5Y (or netural with value of 2 to 5)
Value—2 to 5
Chroma—1 or 2
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

E horizon:

Hue—10YR or 2.5Y
Value—5 to 7
Chroma—2 to 4
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—loamy sand, loamy fine sand, sandy loam, or fine sandy loam

Bt horizon (if it occurs):

Hue—10YR or 2.5Y
Value—5 or 6
Chroma—3 to 8
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, sandy clay loam, or clay loam

Btg horizon:

Hue—7.5YR to 2.5Y (or neutral with value of 5 to 7)
Value—5 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, fine sandy loam, sandy clay loam, or clay loam

BCg horizon:

Hue—10YR or 2.5Y (or neutral with value of 5 to 7)
Value—5 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sandy loam, sandy clay loam, or clay loam

Cg horizon (if it occurs):

Hue—10YR to 5Y (or neutral with value of 5 to 7)
Value—5 to 7
Chroma—1 or 2
Redoximorphic features—masses of oxidized iron in shades of brown, yellow, or red; iron depletions in shades of olive or gray
Texture—sand to clay

Formation of the Soils

In this section, the factors and processes that have affected the formation and morphology of the soils in Southampton County are described.

Factors of Soil Formation

Soils are intimate mixtures of broken and partly or completely weathered rock, minerals, organic matter, living plants and animals, water, and air (Soil Survey Division Staff, 1993). They occur as part of the natural landscape and differ from place to place. They differ in occurrence, in degree of development of various horizons, in mineral content, in depth over bedrock, and in texture, color, and slope. The characteristics of the soils in any given area depend upon the interaction of the five factors of soil formation, which are parent material, climate, living organisms, topography, and time. Topography over time modifies the effects of climate and living organisms on parent material (Jenny, 1941).

In theory, if all soil-forming factors were identical at different sites, the soils at these sites would be identical. However, all of these factors influence the genesis of every soil, and their relative importance varies from place to place. One factor may outweigh others in the formation of a soil and may determine most of its properties. For example, very young soils on flood plains may have only faint soil horizonation because soil-forming factors have been active a short time. In contrast, soils formed in residuum from bedrock on a stable landscape may have distinct horizons. The horizons are distinct because the soil material has remained largely in place and all the soil-forming factors have been active for a long time. In general, however, the combined action of the five factors determines the character of each soil. The interaction of the five factors of soil formation is more complex for some soils than for others.

Parent Material

The unconsolidated mass from which a soil forms is parent material. It is largely responsible for the chemical and mineralogical composition of the soil and the rate at which soil-forming processes take place.

The parent materials in Southhampton County are alluvial and have been transported and deposited by marine, fluvial, and alluvial action. Transported material includes alluvial sediments that were moved by water and laid down as unconsolidated deposits of sand, silt, clay, and rock fragments. Alluvial sediments are materials transported by floodwaters and deposited on the flood plains or terraces of streams. Marine sediments are materials deposited by the ocean that once covered the survey area millions of years ago. Soils that formed from marine deposits are generally at the higher elevations and include clayey, loamy, and sandy deposits. Clayey marine deposits are the parent material of Craven soils. Mixtures of clayey and loamy marine deposits are the parent material of Roanoke and Uchee soils. Loamy marine deposits are the parent material of Emporia, Slagle, and Myatt soils. Soils that formed from sandy marine deposits include Pactolus and Alaga soils.

The soils on flood plains and stream terraces formed in material that was washed from marine deposits and deposited along streams. Riverview, Chewacla, and Chastain soils occur in the lower-lying areas along streams, which are on flood plains. The soils in the higher elevated areas along streams are on terraces. Soils such as State, Altavista, Bojac, Munden, and Tarboro occur on these terraces.

Climate

Climate affects the physical, chemical, and biological relationships in soils, principally through the influence of precipitation and temperature. Water dissolves minerals, supports biological activity, and transports mineral and organic residue through the solum. Temperature determines the type and rate of physical, chemical, and biological activities.

Because precipitation exceeds evapotranspiration in the growing season, the humid climate has caused the soils to be leached. Most of the soluble materials originally in the soil or released through weathering have been removed. Exceptions to this are alluvial soils, such as Bibb soils, which are recharged with eroded sediments from surrounding uplands. Precipitation is mainly responsible for the subsoil that characterizes most soils in the survey area. In addition to leaching soluble materials, water that percolates through the soil moves clay from the surface layer to the subsoil. Except for soils that formed in recent alluvium or sand or on very steep slopes, the soils in the survey area typically have subsoils that contain more clay than the surface layers.

Also influenced by climate is the formation of blocky structure in the subsoil of well developed soils. The development of peds (aggregates) in the subsoil is caused partly by changes in volume of the soil mass that are primarily the result of alternate wetting and drying.

Living Organisms

Microorganisms, vegetation, animals, and humans are major factors in the formation of soils. Vegetation is generally responsible for the amount of organic matter and nutrients and the color of the surface layer. Earthworms, cicadas, and burrowing animals help keep the soil open and porous. Microorganisms decompose the vegetation and dead animal matter, thus releasing nutrients for plant food. Humans have changed the soil by mixing the upper layers.

Before settlement by humans, native vegetation, mainly oaks, hickories, and pines, was the major living organism affecting soil development. Most hardwoods use a large amount of the available calcium and other bases and constantly recycle them through leaf fall and decay. This has prevented the soils in the survey area from becoming as leached as they would have been under a coniferous forest cover. Also, since the soils form under forest vegetation, rapid decay of organic matter and constant recycling of nutrients have prevented organic matter accumulation in large quantities. In addition, the climate favors rapid decay of plant materials, oxidation of organic matter, and leaching of nutrients.

Humans have influenced soil development by clearing forests, cultivating crops, introducing new plants, and changing natural drainage. The most important changes caused by humans are the mixing of the upper layers of the soils to form a plow layer, accelerated erosion caused by cultivating steep slopes, and the application of lime and fertilizer to change the fertility of the soils.

Topography

The underlying geologic sediments, the geologic history of the general region, and the effects of dissection by rivers and streams largely determine the relief of an area.

Figure 4.—Slow surface runoff in a nearly level area of the Coastal Plain.

Relief, or topography, affects the formation of soils by influencing the quantity of infiltrating water, the rate of surface water runoff, the rate of drainage in the soil, the soil temperature, and the rate of geologic erosion. Relief can alter the effects of climate on the parent material to the extent that several different kinds of soils may form from the same kind of parent material. Relief also affects the amount of radiant energy absorbed by the soils, which in turn affects the type of native vegetation on the soils.

Relief in the survey area ranges from nearly level to very steep. The nearly level soils are common on upland flats, on flood plains of streams, and in marshes. Most of the nearly level soils are often wet because of frequent flooding or a seasonal high water table, and the surface water runoff is usually slow (fig. 4). These soils typically have a subsoil or substratum that is gray or mottled gray and are somewhat poorly drained or poorly drained. Bibb and Roanoke soils are examples.

The gently sloping to very steep soils generally are well drained or moderately well drained. On the gently sloping and sloping soils, geologic erosion is slight, surface water runoff is medium to rapid, and water infiltration is optimum. Translocation of bases and clay has usually occurred downward through the soil. However, on the steeper soils, surface runoff is very rapid, water infiltration and translocation of clay and bases through the soil are reduced, and the erosion hazard is severe.

In most upland areas, the parent materials and other soil-forming factors are essentially the same and relief has modified the effects of the other soil-forming factors. For example, Emporia and Slagle soils formed from similar parent materials, yet Emporia soils, being slightly higher on the landscape, are well drained while adjacent Slagle soils are moderately well drained.

Time

As a factor of soil formation, time generally is related to the degree of development or degree of horizon differentiation within the soil. A soil that has little or no horizon development is considered a young soil, and one that has strongly developed horizons is considered an old or mature soil.

The oldest soils in the survey area are those formed on well drained uplands at the higher elevations. These older soils, such as Emporia soils, have a strong degree of horizon differentiation. Conversely, Bibb soils formed in recent alluvium and show little or no horizon development. They are commonly stratified and have an irregular distribution of organic matter in the profile.

Morphology of the Soils

The results of the soil-forming factors are shown by the different layers, or soil horizons, in a soil profile. The soil profile extends from the surface down to materials that are little altered by the soil-forming processes.

Most soils have four major horizons called A, E, B, and C horizons. These major horizons may be further subdivided by the use of numbers and letters to indicate changes within a horizon. An example would be the Bt horizon, a B horizon that has an accumulation of clay.

The *A horizon* is the surface layer and has the largest accumulation of organic matter. The A horizon is also the layer of maximum leaching and eluviation of clay and iron. If considerable leaching has taken place and organic matter has not darkened the material, this horizon is called an *E horizon*.

The *B horizon* underlies the A or E horizon and is commonly called the subsoil. It is the horizon of maximum accumulation, or illuviation, of clay, iron, aluminum, and other compounds leached from the surface layer. In some soils the B horizon formed by alteration in place rather than by illuviation. This alteration can be caused by oxidation and reduction of iron or by the weathering of clay minerals. The B horizon commonly has blocky structure, and it generally is firmer and lighter in color than the A and E horizons but darker than the C horizon.

The *C horizon* is below the B horizon or, in some cases, below the A horizon. It consists of materials that are little altered by the soil-forming processes, but it can be modified by weathering.

Processes of Horizon Differentiation

In Southampton County several processes are involved in the formation of soil horizons. Among these are the accumulation of organic matter, the leaching of soluble salts, the reduction and transfer of iron, the formation of soil structure, and the formation and translocation of clay minerals. These processes are continually taking place, generally at the same time throughout the profile. Such processes have been going on for thousands of years.

The accumulation and incorporation of organic matter take place with the decomposition of plant residue. These additions darken the surface layer and help to form the A horizon. In many places, much of the surface layer has been eroded away or has been mixed with the materials from underlying layers through cultivation. Organic matter, once lost, normally takes a long time to replace. In Southampton County, the organic matter content of the surface layer ranges from low in sandy soils, such as Rumford soils, to high in marsh soils, such as Dorovan soils. A low to medium amount of organic matter is dominant for most soils in the county.

For soils to have distinct subsoil horizons, some of the lime and soluble salts must be leached before the translocation of clay minerals. Among the factors that affect this leaching are the kinds of salts originally present, the depth to which the soil solution percolates, and the texture of the soil profile.

Well drained and moderately well drained soils in the survey area have a yellowish brown to red subsoil. These colors are caused mainly by thin coatings of iron oxides on sand and silt grains, although in some soils the colors are inherited from the materials in which they formed. The structure is weak to moderate subangular blocky, and the subsoil contains more clay than the overlying surface horizons.

The reduction and transfer of iron, called gleying, takes place mainly in the wetter, more poorly drained soils. Moderately well drained to somewhat poorly drained soils, such as Slagle and Nahunta soils, have yellowish brown and strong brown redoximorphic features, which indicate the segregation of iron. In poorly drained soils, such as Bibb and Roanoke soils, the subsoil and underlying materials are grayish, indicating reduction and transfer of iron by removal in solution.

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Glossary

Many of the terms relating to landforms, geology, and geomorphology are defined in more detail in the “National Soil Survey Handbook” (available in local offices of the Natural Resources Conservation Service or on the Internet).

ABC soil. A soil having an A, a B, and a C horizon.

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvium. Unconsolidated material, such as gravel, sand, silt, clay, and various mixtures of these, deposited on land by running water.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction toward which a slope faces. Also called slope aspect.

Association, soil. A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

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.

Backswamp. A flood-plain landform. Extensive, marshy or swampy, depressed areas of flood plains between natural levees and valley sides or terraces.

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.

Base slope (geomorphology). A geomorphic component of hills consisting of the concave to linear (perpendicular to the contour) slope that, regardless of the lateral shape, forms an apron or wedge at the bottom of a hillside dominated by colluvium and slope-wash sediments (for example, slope alluvium).

Bedding plane. A planar or nearly planar bedding surface that visibly separates each successive layer of stratified sediment or rock (of the same or different lithology) from the preceding or following layer; a plane of deposition. It commonly marks a change in the circumstances of deposition and may show a parting, a color difference, a change in particle size, or various combinations of these. The term is commonly applied to any bedding surface, even one that is conspicuously bent or deformed by folding.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Bench terrace. A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.

Bisequum. Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.

Blowout. A saucer-, cup-, or trough-shaped depression formed by wind erosion on a preexisting dune or other sand deposit, especially in an area of shifting sand or loose soil or where protective vegetation is disturbed or destroyed; the adjoining accumulation of sand derived from the depression, where recognizable, is commonly included. Blowouts are commonly small.

Bottom land. An informal term loosely applied to various portions of a flood plain.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Breaks. A landscape or tract of steep, rough or broken land dissected by ravines and gullies and marking a sudden change in topography.

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.)

Canyon. A long, deep, narrow valley with high, precipitous walls in an area of high local relief.

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 and under similar climatic conditions but that 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. See Redoximorphic features.
Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.
Claypan. A dense, compact subsoil layer that contains much more clay than the overlying materials, from which it is separated by a sharply defined boundary. The layer restricts the downward movement of water through the soil. A claypan is commonly hard when dry and plastic and sticky when wet.
Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.
Coarse textured soil. Sand or loamy sand.
Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.
Cobbly soil material. Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.
COLE (coefficient of linear extensibility). See Linear extensibility.
Colluvium. Unconsolidated, unsorted earth material being transported or deposited on side slopes and/or at the base of slopes by mass movement (e.g., direct gravitational action) and by local, unconcentrated runoff.
Complex 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. See Redoximorphic features.
Conglomerate. A coarse-grained, clastic sedimentary rock composed of rounded or subangular rock fragments more than 2 millimeters in diameter. It commonly has a matrix of sand and finer textured material. Conglomerate is the consolidated equivalent of gravel.
Conservation 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.

Coprogenous earth (sedimentary peat). A type of limnic layer composed predominantly of fecal material derived from aquatic animals.

Corrosion (geomorphology). A process of erosion whereby rocks and soil are removed or worn away by natural chemical processes, especially by the solvent action of running water, but also by other reactions, such as hydrolysis, hydration, carbonation, and oxidation.

Corrosion (soil survey interpretations). 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.

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.

Cropping system. Growing crops according to a planned system of rotation and management practices.

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.

Culmination of the mean annual increment (CMAI). The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Decreasers. The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Dense layer (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

Depth, soil. Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Divided-slope farming. A form of field stripcropping in which crops are grown in a systematic arrangement of two strips, or bands, across the slope to reduce the hazard of water erosion. One strip is in a close-growing crop that provides protection from erosion, and the other strip is in a crop that provides less protection from erosion. This practice is used where slopes are not long enough to permit a full stripcropping pattern to be used.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained,* and *very poorly drained*. These classes are defined in the “Soil Survey Manual.”

Drainage, surface. Runoff, or surface flow of water, from an area.

Drainageway. A general term for a course or channel along which water moves in draining an area. A term restricted to relatively small, linear depressions that at some time move concentrated water and either do not have a defined channel or have only a small defined channel.

Draw. A small stream valley that generally is shallower and more open than a ravine or gulch and that has a broader bottom. The present stream channel may appear inadequate to have cut the drainageway that it occupies.

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.

Earthy fill. See Mine spoil.

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.

Eolian deposit. Sand-, silt-, or clay-sized clastic material transported and deposited primarily by wind, commonly in the form of a dune or a sheet of sand or loess.

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.

Erosion pavement. A surficial lag concentration or layer of gravel and other rock fragments that remains on the soil surface after sheet or rill erosion or wind has removed the finer soil particles and that tends to protect the underlying soil from further erosion.

Erosion surface. A land surface shaped by the action of erosion, especially by running water.

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. Most commonly applied to cliffs produced by differential erosion. Synonym: scarp.

Fallow. Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grain is grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.

Fan remnant. A general term for landforms that are the remaining parts of older fan landforms, such as alluvial fans, that have been either dissected or partially buried.

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. An 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. An obsolete, informal term loosely applied to the lowest flood-plain steps that are subject to regular 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. The nearly level plain that borders a stream and is subject to flooding unless protected artificially.

Flood-plain landforms. A variety of constructional and erosional features produced by stream channel migration and flooding. Examples include backswamps, flood-plain splays, meanders, meander belts, meander scrolls, oxbow lakes, and natural levees.

Flood-plain splay. A fan-shaped deposit or other outspread deposit formed where an overloaded stream breaks through a levee (natural or artificial) and deposits its material (commonly coarse grained) on the flood plain.

Flood-plain step. An essentially flat, terrace-like alluvial surface within a valley that is frequently covered by floodwater from the present stream; any approximately horizontal surface still actively modified by fluvial scour and/or deposition. May occur individually or as a series of steps.

Fluvial. Of or pertaining to rivers or streams; produced by stream or river action.

Foothills. A region of steeply sloping hills that fringes a mountain range or high-plateau escarpment. The hills have relief of as much as 1,000 feet (300 meters).

Footslope. The concave surface at the base of a hillslope. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Graded stripcropping. Growing crops in strips that grade toward a protected waterway.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water. Water filling all the unblocked pores of the material below the water table.

Gully. A small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

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.

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.

Head slope (geomorphology). A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.

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 generic term for an elevated area of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline. Slopes are generally more than 15 percent. The distinction between a hill and a mountain is arbitrary and may depend on local usage.

Hillslope. A generic term for the steeper part of a hill between its summit and the drainage line, valley flat, or depression floor at the base of a hill.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

L horizon.—A layer of organic and mineral limnic materials, including coprogenous earth (sedimentary peat), diatomaceous earth, and marl.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties include depth to a seasonal high water table, the infiltration rate, and depth to a layer that significantly restricts the downward movement of water. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Igneous rock. Rock that was formed by cooling and solidification of magma and that has not been changed appreciably by weathering since its formation. Major varieties include plutonic and volcanic rock (e.g., andesite, basalt, and granite).

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. A landform composed of the relatively undissected upland or ridge between two adjacent valleys containing streams flowing in the same general direction. An elevated area between two drainageways that sheds water to those drainageways.

Interfluve (geomorphology). A geomorphic component of hills consisting of the uppermost, comparatively level or gently sloping area of a hill; shoulders of backwearing hillslopes can narrow the upland or can merge, resulting in a strongly convex shape.

Intermittent stream. A stream, or reach of a stream, that does not flow year-round but that is commonly dry for 3 or more months out of 12 and whose channel is generally below the local water table. It flows only during wet periods or when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

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. See Redoximorphic features.

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.

Kame. A low mound, knob, hummock, or short irregular ridge composed of stratified sand and gravel deposited by a subglacial stream as a fan or delta at the margin of a melting glacier; by a supraglacial stream in a low place or hole on the surface of the glacier; or as a ponded deposit on the surface or at the margin of stagnant ice.

Knoll. A small, low, rounded hill rising above adjacent landforms.

K_{sat}. See Saturated hydraulic conductivity.

Lamella. An illuvial horizon less than 7.5 centimeters thick. Each lamella contains an accumulation of oriented silicate clay on or bridging sand and silt grains (and rock fragments if any are present). A lamella has more silicate clay than the overlying eluvial horizon.

Landslide. A general, encompassing term for most types of mass movement landforms and processes involving the downslope transport and outward deposition of soil and rock materials caused by gravitational forces; the movement may or may not involve saturated materials. 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.

Loess. Material transported and deposited by wind and consisting dominantly of silt-sized particles.

Low strength. The soil is not strong enough to support loads.

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.

Mass movement. A generic term for the dislodgment and downslope transport of soil and rock material as a unit under direct gravitational stress.

Masses. See Redoximorphic features.

Meander belt. The zone within which migration of a meandering channel occurs; the flood-plain area included between two imaginary lines drawn tangential to the outer bends of active channel loops.

Meander scar. A crescent-shaped, concave or linear mark on the face of a bluff or valley wall, produced by the lateral erosion of a meandering stream that impinged upon and undercut the bluff.

Meander scroll. One of a series of long, parallel, close-fitting, crescent-shaped ridges and troughs formed along the inner bank of a stream meander as the channel migrated laterally down-valley and toward the outer bank.

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.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement at depth in the earth's crust. Nearly all such rocks are crystalline.

Mine spoil. An accumulation of displaced earthy material, rock, or other waste material removed during mining or excavation. Also called earthy fill.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. A kind of map unit that has little or no natural soil and supports little or no vegetation.

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).

Mountain. A generic term for an elevated area of the land surface, rising more than 1,000 feet (300 meters) above surrounding lowlands, commonly of restricted summit area (relative to a plateau) and generally having steep sides. A mountain can occur as a single, isolated mass or in a group forming a chain or range. Mountains are formed primarily by tectonic activity and/or volcanic action but can also be formed by differential erosion.

Muck. Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

Mudstone. A blocky or massive, fine-grained sedimentary rock in which the proportions of clay and silt are approximately equal. Also, a general term for such material as clay, silt, claystone, siltstone, shale, and argillite and that should be used only when the amounts of clay and silt are not known or cannot be precisely identified.

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. See Redoximorphic features.

Nose slope (geomorphology). A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent. Nose slopes consist dominantly of colluvium and slope-wash sediments (for example, slope alluvium).

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan, fragipan, claypan, plowpan,* and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

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 layer of sediment, eroded from the shoulder and backslope of an erosional slope, that lies on and is being (or was) transported across a gently sloping erosional surface at the foot of a receding hill or mountain slope.

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.

Permafrost. Ground, soil, or rock that remains at or below 0 degrees C for at least 2 years. It is defined on the basis of temperature and is not necessarily frozen.

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

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.

Pore linings. See Redoximorphic features.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Rangeland. Land on which the potential natural vegetation is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed as pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Red beds. Sedimentary strata that are mainly red and are made up largely of sandstone and shale.

Redoximorphic concentrations. See Redoximorphic features.

Redoximorphic depletions. See Redoximorphic features.

Redoximorphic features. Redoximorphic features are associated with wetness and result from alternating periods of reduction and oxidation of iron and manganese compounds in the soil. Reduction occurs during saturation with water, and oxidation occurs when the soil is not saturated. Characteristic color patterns are created by these processes. The reduced iron and manganese ions may be removed from a soil if vertical or lateral fluxes of water occur, in which case there is no iron or manganese precipitation in that soil. Wherever the iron and manganese are oxidized and precipitated, they form either soft masses or hard concretions or nodules. Movement of iron and manganese as a result of redoximorphic processes in a soil may result in redoximorphic features that are defined as follows:

1. Redoximorphic concentrations.—These are zones of apparent accumulation of iron-manganese oxides, including:

A. Nodules and concretions, which are cemented bodies that can be removed from the soil intact. Concretions are distinguished from nodules on the basis of internal organization. A concretion typically has concentric layers that are visible to the naked eye. Nodules do not have visible organized internal structure; *and*

B. Masses, which are noncemented concentrations of substances within the soil matrix; *and*

C. Pore linings, i.e., zones of accumulation along pores that may be either coatings on pore surfaces or impregnations from the matrix adjacent to the pores.

2. Redoximorphic depletions.—These are zones of low chroma (chromas less than those in the matrix) where either iron-manganese oxides alone or both iron-manganese oxides and clay have been stripped out, including:

A. Iron depletions, i.e., zones that contain low amounts of iron and manganese oxides but have a clay content similar to that of the adjacent matrix; *and*

B. Clay depletions, i.e., zones that contain low amounts of iron, manganese, and clay (often referred to as silt coatings or skeletans).

3. Reduced matrix.—This is a soil matrix that has low chroma *in situ* but undergoes a change in hue or chroma within 30 minutes after the soil material has been exposed to air.

Reduced matrix. See Redoximorphic features.

Regolith. All unconsolidated earth materials above the solid bedrock. It includes material weathered in place from all kinds of bedrock and alluvial, glacial, eolian, lacustrine, and pyroclastic deposits.

Relief. The relative difference in elevation between the upland summits and the lowlands or valleys of a given region.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as bedrock disintegrated in place.

Rill. A very small, steep-sided channel resulting from erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. A rill generally is not an obstacle to wheeled vehicles and is shallow enough to be smoothed over by ordinary tillage.

Riser. The vertical or steep side slope (e.g., escarpment) of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural, steplike landforms, such as successive stream terraces.

Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

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.

Saline soil. A soil containing soluble salts in an amount that impairs growth of plants. A saline soil does not contain excess exchangeable sodium.

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.

Saturated hydraulic conductivity (K_{sat}). The ease with which pores of a saturated soil transmit water. Formally, the proportionality coefficient that expresses the relationship of the rate of water movement to hydraulic gradient in Darcy's Law, a law that describes the rate of water movement through porous media. Commonly abbreviated as "K_{sat}." Terms describing saturated hydraulic conductivity are *very high*, 100 or more micrometers per second (14.17 or more inches per hour); *high*, 10 to 100 micrometers per second (1.417 to 14.17 inches per hour); *moderately high*, 1 to 10 micrometers per second (0.1417 inch to 1.417 inches per hour); *moderately low*, 0.1 to 1 micrometer per second (0.01417 to 0.1417 inch per hour); *low*, 0.01 to 0.1 micrometer per second (0.001417 to 0.01417 inch per hour); and *very low*, less than 0.01 micrometer per second (less than 0.001417 inch per hour). To convert inches per hour to micrometers per second, multiply inches per hour by 7.0572. To convert micrometers per second to inches per hour, multiply micrometers per second by 0.1417.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Scarification. The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.

Sedimentary rock. A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under normal low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, and marine deposits. Examples are sandstone, siltstone, mudstone, claystone, shale, conglomerate, limestone, dolomite, and coal.

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. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shale. Sedimentary rock that formed by the hardening of a deposit of clay, silty clay, or silty clay loam and that has a tendency to split into thin layers.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.

Shoulder. The convex, erosional surface near the top of a hillslope. A shoulder is a transition from summit to backslope.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Shrub-coppice dune. A small, streamlined dune that forms around brush and clump vegetation.

Side slope (geomorphology). A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel. Side slopes are dominantly colluvium and slope-wash sediments.

Silica. A combination of silicon and oxygen. The mineral form is called quartz.

Silica-sesquioxide ratio. The ratio of the number of molecules of silica to the number of molecules of alumina and iron oxide. The more highly weathered soils or their clay fractions in warm-temperate, humid regions, and especially those in the tropics, generally have a low ratio.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05

millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Siltstone. An indurated silt having the texture and composition of shale but lacking its fine lamination or fissility; a massive mudstone in which silt predominates over clay.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

Slickensides (pedogenic). Grooved, striated, and/or glossy (shiny) slip faces on structural peds, such as wedges; produced by shrink-swell processes, most commonly in soils that have a high content of expansive clays.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey, classes for simple slopes are as follows:

Level	0 to 2 percent
Gently sloping	2 to 6 percent
Strongly sloping	6 to 10 percent
Moderately steep	10 to 15 percent
Steep	15 to 25 percent
Very steep	25 percent and higher

Slope alluvium. Sediment gradually transported down the slopes of mountains or hills primarily by nonchannel alluvial processes (i.e., slope-wash processes) and characterized by particle sorting. Lateral particle sorting is evident on long slopes. In a profile sequence, sediments may be distinguished by differences in size and/or specific gravity of rock fragments and may be separated by stone lines. Burnished peds and sorting of rounded or subrounded pebbles or cobbles distinguish these materials from unsorted colluvial deposits.

Slow refill (in tables). The slow filling of ponds, resulting from restricted water transmission in the soil.

Slow water movement (in tables). Restricted downward movement of water through the soil. See Saturated hydraulic conductivity.

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 and by the passage of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Stone line. In a vertical cross section, a line formed by scattered fragments or a discrete layer of angular and subangular rock fragments (commonly a gravel- or cobble-sized lag concentration) that formerly was draped across a topographic surface and was later buried by additional sediments. A stone line generally caps material that was subject to weathering, soil formation, and erosion before burial. Many stone lines seem to be buried erosion pavements, originally formed by sheet and rill erosion across the land surface.

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.

Strath terrace. A type of stream terrace; formed as an erosional surface cut on bedrock and thinly mantled with stream deposits (alluvium).

Stream terrace. One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel, originally formed near the level of the stream; represents the remnants of an abandoned flood plain, stream bed, or valley floor produced during a former state of fluvial erosion or deposition.

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 grain* (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.

Summer fallow. The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.

Summit. The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terrace (conservation). An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geomorphology). A steplike surface, bordering a valley floor or shoreline, that represents the former position of a flood plain, lake, or seashore. The term is usually applied both to the relatively flat summit surface (tread) that was cut or built by stream or wave action and to the steeper descending slope (scarp or riser) that has graded to a lower base level of erosion.

Terracettes. Small, irregular steplike forms on steep hillslopes, especially in pasture, formed by creep or erosion of surficial materials that may be induced or enhanced by trampling of livestock, such as sheep or cattle.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay,* and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

Thin layer (in tables). Otherwise suitable soil material that is too thin for the specified use.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toeslope. The gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Trace elements. Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.

Tread. The flat to gently sloping, topmost, laterally extensive slope of terraces, flood-plain steps, or other stepped landforms; commonly a recurring part of a series of natural steplike landforms, such as successive stream terraces.

Tuff. A generic term for any consolidated or cemented deposit that is 50 percent or more volcanic ash.

Upland. An informal, general term for the higher ground of a region, in contrast with a low-lying adjacent area, such as a valley or plain, or for land at a higher elevation than the flood plain or low stream terrace; land above the footslope zone of the hillslope continuum.

Valley fill. The unconsolidated sediment deposited by any agent (water, wind, ice, or mass wasting) so as to fill or partly fill a valley.

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 disintegration, chemical decomposition, and biologically induced changes in rocks or other deposits at or near the earth's surface by atmospheric or biologic agents or by circulating surface waters but involving essentially no transport of the altered material.

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 1961-90 at Holland, Virginia)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have-- Maximum temp. higher than--	2 years in 10 will have-- Minimum temp. lower than--	Average number of growing degree days*	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 or more	Average snow-fall
	°F	°F	°F	°F	°F	Units	In	In	In		In
January--	48.0	27.2	37.6	73	5	18	4.09	2.58	5.46	7	3.0
February-	50.8	29.5	40.2	76	9	32	3.56	2.08	4.88	7	3.2
March----	60.1	37.1	48.6	84	19	103	4.06	2.58	5.40	7	1.8
April----	69.7	44.8	57.2	90	26	247	3.22	1.92	4.38	6	0.0
May------	77.5	54.4	66.0	93	35	496	4.11	2.45	5.60	7	0.0
June-----	84.6	62.6	73.6	96	44	707	4.39	2.02	6.43	6	0.0
July-----	87.8	66.9	77.4	97	52	848	5.26	3.34	6.99	8	0.0
August---	86.8	65.9	76.4	97	50	817	5.20	2.44	7.57	6	0.0
September	81.6	59.3	70.5	95	40	614	4.09	1.88	5.99	4	0.0
October--	71.7	47.4	59.6	88	26	314	3.61	1.65	5.30	5	0.0
November-	63.1	39.4	51.3	82	20	135	3.00	1.57	4.25	5	0.0
December-	52.7	31.1	41.9	75	11	39	3.50	2.08	4.77	6	1.0
Yearly:											
Average	69.5	47.1	58.3	---	---	---	---	---	---	---	---
Extreme	104	-5	---	99	3	---	---	---	---	---	---
Total--	---	---	---	---	---	4,371	48.09	41.71	54.24	74	8.9

* 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 1961-90 at Holland, Virginia)

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. 29	Apr. 10	Apr. 28
2 years in 10 later than--	Mar. 23	Apr. 5	Apr. 23
5 years in 10 later than--	Mar. 13	Mar. 27	Apr. 13
First freezing temperature in fall:			
1 year in 10 earlier than--	Nov. 5	Oct. 22	Oct. 7
2 years in 10 earlier than--	Nov. 12	Oct. 27	Oct. 12
5 years in 10 earlier than-	Nov. 24	Nov. 7	Oct. 23

Table 3.—Growing Season

(Recorded in the period 1961-90 at Holland, Virginia)

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	229	202	171
8 years in 10	238	210	178
5 years in 10	256	225	191
2 years in 10	273	240	204
1 year in 10	282	247	211

Table 4.—Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
1B	Alaga loamy sand, 0 to 6 percent slopes	3,037	0.8
2A	Altavista fine sandy loam, 0 to 2 percent slopes, rarely flooded	15,230	3.9
2B	Altavista fine sandy loam, 2 to 6 percent slopes, rarely flooded	4,238	1.1
3A	Augusta sandy loam, 0 to 2 percent slopes, rarely flooded	3,841	1.0
4A	Bibb sandy loam, 0 to 2 percent slopes, frequently flooded	28,800	7.4
5B	Bojac loamy sand, 2 to 6 percent slopes, very rarely flooded	3,104	0.8
6A	Buncombe loamy sand, 0 to 2 percent slopes, occasionally flooded	1,807	0.5
7A	Chastain loam, 0 to 2 percent slopes, frequently flooded	8,162	2.1
8A	Chastain loam, 0 to 2 percent slopes, ponded	9,138	2.3
9A	Chewacla loam, 0 to 2 percent slopes, frequently flooded	7,791	2.0
10A	Craven fine sandy loam, 0 to 2 percent slopes	2,206	0.6
10B	Craven fine sandy loam, 2 to 6 percent slopes	3,767	1.0
10C	Craven fine sandy loam, 6 to 10 percent slopes	1,220	0.3
11B	Craven clay loam, 2 to 6 percent slopes, severely eroded	524	0.1
11C	Craven clay loam, 6 to 10 percent slopes, severely eroded	198	*
12A	Dorovan muck, 0 to 2 percent slopes, frequently flooded	2,847	0.7
13A	Emporia fine sandy loam, 0 to 2 percent slopes	14,215	3.6
13B	Emporia fine sandy loam, 2 to 6 percent slopes	29,994	7.7
13C	Emporia fine sandy loam, 6 to 10 percent slopes	5,254	1.3
14A	Exum silt loam, 0 to 2 percent slopes	206	*
15A	Munden loamy sand, 0 to 2 percent slopes, rarely flooded	2,646	0.7
15B	Munden loamy sand, 2 to 6 percent slopes, rarely flooded	530	0.1
16A	Myatt loam, 0 to 2 percent slopes	22,183	5.7
17A	Nansemond loamy fine sand, 0 to 2 percent slopes	4,278	1.1
17B	Nansemond loamy fine sand, 2 to 6 percent slopes	5,714	1.5
18F	Nevarc and Remlik soils, 15 to 65 percent slopes	3,180	0.8
19A	Nimmo sandy loam, 0 to 2 percent slopes	2,727	0.7
20B	Ocilla loamy sand, 0 to 6 percent slopes	1,802	0.5
20C	Ocilla loamy sand, 6 to 10 percent slopes	230	*
21A	Pactolus loamy fine sand, 0 to 2 percent slopes, rarely flooded	3,088	0.8
22A	Riverview sandy loam, 0 to 2 percent slopes, frequently flooded	1,626	0.4
23A	Roanoke loam, 0 to 2 percent slopes, occasionally flooded	12,830	3.3
24B	Rumford, Kenansville, and Uchee soils, 0 to 6 percent slopes	9,525	2.4
24C	Rumford, Kenansville, and Uchee soils, 6 to 10 percent slopes	635	0.2
25A	Seabrook loamy sand, 0 to 2 percent slopes	5,781	1.5
26A	Slagle fine sandy loam, 0 to 2 percent slopes	47,943	12.3
26B	Slagle fine sandy loam, 2 to 6 percent slopes	46,740	12.0
26C	Slagle fine sandy loam, 6 to 10 percent slopes	7,164	1.8
27A	State fine sandy loam, 0 to 2 percent slopes, very rarely flooded	2,815	0.7
27B	State fine sandy loam, 2 to 6 percent slopes, very rarely flooded	1,442	0.4
28B	Tarboro loamy sand, 0 to 6 percent slopes	8,244	2.1
29A	Tomotley sandy loam, 0 to 2 percent slopes, rarely flooded	8,972	2.3
30B	Uchee loamy sand, 0 to 6 percent slopes	21,689	5.5
30C	Uchee loamy sand, 6 to 10 percent slopes	6,486	1.7
30D	Uchee loamy sand, 10 to 15 percent slopes	3,390	0.9
31	Udorthents, smoothed	614	0.2
32A	Urban land-Udorthents complex, 0 to 2 percent slopes	215	*
33F	Winton fine sandy loam, 15 to 65 percent slopes	1,271	0.3
34A	Yemassee fine sandy loam, 0 to 2 percent slopes	8,558	2.2
W	Water	2,903	0.7
	Total	390,800	100.0

* Less than 0.1 percent.

Table 5.—Land Capability, Virginia Soil Management Group, and Yields per Acre of Crops and Pasture

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land capability	Virginia soil management group	Corn	Grass-legume hay	Pasture	Peanuts	Soybeans	Wheat
			Bu	Tons	AUM	Lbs	Bu	Bu
1B:								
Alaga-------------	4s	II	65	2.0	3.5	2000	20	48
2A:								
Altavista---------	2w	B	160	4.5	9.0	3500	50	64
2B:								
Altavista---------	2e	B	160	4.5	9.0	3500	50	64
3A:								
Augusta-----------	4w	Z	100	2.0	3.5	2800	35	40
4A:								
Bibb--------------	6w	EE	---	---	3.0	---	---	---
5B:								
Bojac-------------	2e	DD	85	3.5	5.0	4100	25	56
6A:								
Buncombe----------	4s	II	65	2.0	3.5	---	20	48
7A:								
Chastain, frequently flooded----------	7w	LL	---	---	---	---	---	---
8A:								
Chastain, ponded--	7w	LL	---	---	---	---	---	---
9A:								
Chewacla----------	6w	I	---	---	7.5	---	---	---
10A:								
Craven------------	2w	HH	85	3.0	6.0	2900	25	48
10B:								
Craven------------	2e	HH	85	3.0	6.0	2900	25	48
10C:								
Craven------------	3e	HH	75	2.6	5.5	2500	22	42

Table 5.—Land Capability, Virginia Soil Management Group, and Yields per Acre of Crops and Pasture—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Corn	Grass-legume hay	Pasture	Peanuts	Soybeans	Wheat
			Bu	Tons	AUM	Lbs	Bu	Bu
11B:								
Craven------------	3e	HH	60	2.1	5.0	2100	18	34
11C:								
Craven------------	4e	HH	52	1.8	4.6	1800	15	30
12A:								
Dorovan-----------	7w	PP	---	---	---	---	---	---
13A:								
Emporia-----------	1	R	120	4.0	8.0	4000	40	56
13B:								
Emporia-----------	2e	R	120	4.0	8.0	4000	40	56
13C:								
Emporia-----------	3e	R	106	3.5	7.0	3500	35	49
14A:								
Exum--------------	2w	J	120	3.5	9.0	3400	40	56
15A:								
Munden------------	2w	F	140	4.0	7.0	3900	40	64
15B:								
Munden------------	2e	F	140	4.0	7.0	3900	40	64
16A:								
Myatt-------------	4w	OO	65	2.0	2.5	---	20	24
17A:								
Nansemond---------	2w	F	140	4.0	8.0	3900	40	64
17B:								
Nansemond---------	2e	F	140	4.0	8.0	3900	40	64
18F:								
Nevarc------------	7e	HH	---	---	---	---	---	---
Remlik------------	7e	DD	---	---	---	---	---	---
19A:								
Nimmo-------------	4w	E	140	4.0	5.0	---	40	64
20B:								
Ocilla------------	4w	DD	85	3.5	5.5	4100	25	56

Table 5.—Land Capability, Virginia Soil Management Group, and Yields per Acre of Crops and Pasture—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Corn	Grass-legume hay	Pasture	Peanuts	Soybeans	Wheat
			Bu	Tons	AUM	Lbs	Bu	Bu
20C:								
Ocilla	4w	DD	75	3.1	5.0	4100	22	49
21A:								
Pactolus	4s	EE	85	2.0	3.5	2200	25	48
22A:								
Riverview	2w	G	140	4.5	9.0	---	40	64
23A:								
Roanoke	4w	NN	65	---	3.0	---	20	24
24B:								
Rumford	2s	DD	85	3.5	5.0	3000	25	56
Kenansville	3s	DD	85	3.5	5.0	3000	25	56
Uchee	3s	DD	85	3.5	5.0	3000	25	56
24C:								
Rumford	3e	DD	75	3.1	4.0	2500	22	49
Kenansville	4s	DD	75	3.1	4.0	2500	22	49
Uchee	4s	DD	75	3.1	4.0	2500	22	49
25A:								
Seabrook	3s	EE	85	2.0	2.5	---	25	48
26A:								
Slagle	2w	K	130	4.5	10.0	3500	40	64
26B:								
Slagle	2e	K	130	4.5	10.0	3500	40	64
26C:								
Slagle	3e	K	114	4.0	8.0	3000	35	56
27A:								
State	1	B	160	4.5	10.0	3300	50	64
27B:								
State	2e	B	160	4.5	10.0	3300	50	64
28B:								
Tarboro	4s	II	65	2.0	2.5	2000	20	48

Table 5.—Land Capability, Virginia Soil Management Group, and Yields per Acre of Crops and Pasture—Continued

Map symbol and soil name	Land capability	Virginia soil management group	Corn	Grass-legume hay	Pasture	Peanuts	Soybeans	Wheat
			Bu	Tons	AUM	Lbs	Bu	Bu
29A: Tomotley	4w	OO	65	2.0	2.5	---	20	24
30B: Uchee	3s	DD	85	3.5	5.5	3000	25	56
30C: Uchee	4s	DD	75	3.1	4.5	2500	22	49
30D: Uchee	4e	DD	68	2.8	3.5	2200	20	45
31. Udorthents								
32A. Urban land-Udorthents								
33F: Winton	7e	K	---	---	---	---	---	---
34A: Yemassee	4w	OO	65	2.0	2.5	---	20	24
W. Water								

Table 6.—Prime Farmland

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name)

Map symbol	Map unit name
2A	Altavista fine sandy loam, 0 to 2 percent slopes, rarely flooded
2B	Altavista fine sandy loam, 2 to 6 percent slopes, rarely flooded
3A	Augusta sandy loam, 0 to 2 percent slopes, rarely flooded (if drained)
5B	Bojac loamy sand, 2 to 6 percent slopes, very rarely flooded
10A	Craven fine sandy loam, 0 to 2 percent slopes
10B	Craven fine sandy loam, 2 to 6 percent slopes
13A	Emporia fine sandy loam, 0 to 2 percent slopes
13B	Emporia fine sandy loam, 2 to 6 percent slopes
14A	Exum silt loam, 0 to 2 percent slopes
15A	Munden loamy sand, 0 to 2 percent slopes, rarely flooded
15B	Munden loamy sand, 2 to 6 percent slopes, rarely flooded
16A	Myatt loam, 0 to 2 percent slopes (if drained)
17A	Nansemond loamy fine sand, 0 to 2 percent slopes
17B	Nansemond loamy fine sand, 2 to 6 percent slopes
19A	Nimmo sandy loam, 0 to 2 percent slopes (if drained)
26A	Slagle fine sandy loam, 0 to 2 percent slopes
26B	Slagle fine sandy loam, 2 to 6 percent slopes
27A	State fine sandy loam, 0 to 2 percent slopes, very rarely flooded
27B	State fine sandy loam, 2 to 6 percent slopes, very rarely flooded
29A	Tomotley sandy loam, 0 to 2 percent slopes, rarely flooded (if drained)
34A	Yemassee fine sandy loam, 0 to 2 percent slopes (if drained)

Table 7.—Hydric Soils

Map symbol	Soil name
4A	Bibb sandy loam, 0 to 2 percent slopes, frequently flooded
7A	Chastain loam, 0 to 2 percent slopes, frequently flooded
8A	Chastain loam, 0 to 2 percent slopes, ponded
12A	Dorovan muck, 0 to 2 percent slopes, frequently flooded
16A	Myatt loam, 0 to 2 percent slopes
19A	Nimmo sandy loam, 0 to 2 percent slopes
23A	Roanoke loam, 0 to 2 percent slopes, occasionally flooded
29A	Tomotley sandy loam, 0 to 2 percent slopes, rarely flooded

Table 8.—Agricultural Waste Management, Part I

(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	Application of manure and food-processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
1B:					
Alaga---------------	85	Very limited		Very limited	
		Filtering capacity	0.99	Too acid	1.00
		Droughty	0.73	Filtering capacity	0.99
		Too acid	0.62	Droughty	0.73
2A:					
Altavista-----------	85	Very limited		Very limited	
		Depth to saturated zone	0.99	Depth to saturated zone	0.99
				Flooding	0.40
2B:					
Altavista-----------	85	Very limited		Very limited	
		Depth to saturated zone	0.99	Depth to saturated zone	0.99
				Flooding	0.40
3A:					
Augusta-------------	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too acid	0.68	Too acid	1.00
				Flooding	0.40
4A:					
Bibb----------------	95	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	1.00
		Too acid	0.68	Too acid	1.00
5B:					
Bojac---------------	75	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Too acid	0.01	Flooding	0.20
				Too acid	0.03
6A:					
Buncombe------------	80	Very limited		Very limited	
		Filtering capacity	0.99	Flooding	1.00
		Droughty	0.91	Too acid	1.00
		Too acid	0.68	Filtering capacity	0.99

Table 8.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
7A:					
Chastain, frequently flooded	90	Very limited		Very limited	
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Slow water movement	1.00
8A:					
Chastain, ponded	90	Very limited		Very limited	
		Slow water movement	1.00	Ponding	1.00
		Ponding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	1.00
9A:					
Chewacla	95	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	1.00
		Too acid	0.68	Too acid	1.00
10A:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Too acid	0.02	Too acid	0.07
10B:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Too acid	0.02	Too acid	0.07
10C:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Too acid	0.02	Too acid	0.07
11B:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Too acid	0.02	Too acid	0.07

Table 8.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
11C:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Too acid	0.02	Too acid	0.07
12A:					
Dorovan	85	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	1.00
13A:					
Emporia	95	Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00
		Too acid	0.32	Too acid	0.91
		Depth to saturated zone	0.09	Depth to saturated zone	0.09
13B:					
Emporia	95	Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00
		Too acid	0.32	Too acid	0.91
		Depth to saturated zone	0.09	Depth to saturated zone	0.09
13C:					
Emporia	90	Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00
		Too acid	0.32	Too acid	0.91
		Depth to saturated zone	0.09	Depth to saturated zone	0.09
14A:					
Exum	85	Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.90	Depth to saturated zone	0.90
		Slow water movement	0.30	Too acid	0.67
		Too acid	0.18	Slow water movement	0.22
15A:					
Munden	85	Very limited		Very limited	
		Depth to saturated zone	0.99	Depth to saturated zone	0.99
		Too acid	0.05	Flooding	0.40
		Droughty	0.03	Too acid	0.21
15B:					
Munden	85	Very limited		Very limited	
		Depth to saturated zone	0.99	Depth to saturated zone	0.99
		Too acid	0.05	Flooding	0.40
		Droughty	0.03	Too acid	0.21

Table 8.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
16A:					
Myatt	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too acid	0.68	Too acid	1.00
		Runoff	0.40		
17A:					
Nansemond	85	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Depth to saturated zone	0.99	Depth to saturated zone	0.99
		Too acid	0.32	Too acid	0.91
17B:					
Nansemond	85	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Depth to saturated zone	0.99	Depth to saturated zone	0.99
		Too acid	0.32	Too acid	0.91
18F:					
Nevarc	45	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	1.00	Slow water movement	1.00
		Depth to saturated zone	0.99	Too acid	1.00
Remlik	35	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Filtering capacity	0.99	Filtering capacity	0.99
		Leaching	0.45	Too acid	0.96
19A:					
Nimmo	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too acid	0.73	Too acid	1.00
		Runoff	0.40		
20B:					
Ocilla	90	Very limited		Very limited	
		Filtering capacity	0.99	Too acid	1.00
		Depth to saturated zone	0.99	Filtering capacity	0.99
		Too acid	0.68	Depth to saturated zone	0.99
20C:					
Ocilla	65	Very limited		Very limited	
		Filtering capacity	0.99	Too acid	1.00
		Depth to saturated zone	0.99	Filtering capacity	0.99
		Too acid	0.68	Depth to saturated zone	0.99

Table 8.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste: Rating class and limiting features	Value	Application of sewage sludge: Rating class and limiting features	Value
21A:					
Pactolus------------	80	Very limited		Very limited	
		Filtering capacity	0.99	Too acid	1.00
		Depth to saturated zone	0.95	Filtering capacity	0.99
		Too acid	0.68	Depth to saturated zone	0.95
22A:					
Riverview-----------	75	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Too acid	0.73	Too acid	1.00
23A:					
Roanoke-------------	95	Very limited		Very limited	
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	1.00
		Too acid	0.78	Slow water movement	1.00
24B:					
Rumford-------------	45	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Too acid	0.01	Too acid	0.03
Kenansville---------	35	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Droughty	0.62	Droughty	0.62
		Leaching	0.45	Too acid	0.42
Uchee---------------	15	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Leaching	0.45	Too acid	0.96
		Too acid	0.37		
24C:					
Rumford-------------	45	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Too acid	0.01	Too acid	0.03
		Slope	0.01	Slope	0.01
Kenansville---------	35	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Droughty	0.62	Droughty	0.62
		Leaching	0.45	Too acid	0.42
Uchee---------------	15	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Leaching	0.45	Too acid	0.96
		Too acid	0.37	Slope	0.01

Table 8.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
25A:					
Seabrook------------	80	Very limited		Very limited	
		Filtering capacity	0.99	Too acid	1.00
		Droughty	0.99	Filtering capacity	0.99
		Too acid	0.68	Droughty	0.99
26A:					
Slagle--------------	85	Somewhat limited		Somewhat limited	
		Slow water movement	0.89	Depth to saturated zone	0.86
		Depth to saturated zone	0.86	Slow water movement	0.78
26B:					
Slagle--------------	85	Somewhat limited		Somewhat limited	
		Slow water movement	0.89	Depth to saturated zone	0.86
		Depth to saturated zone	0.86	Slow water movement	0.78
26C:					
Slagle--------------	80	Somewhat limited		Somewhat limited	
		Slow water movement	0.89	Depth to saturated zone	0.86
		Depth to saturated zone	0.86	Slow water movement	0.78
		Slope	0.01	Slope	0.01
27A:					
State---------------	95	Not limited		Somewhat limited	
				Flooding	0.20
27B:					
State---------------	85	Not limited		Somewhat limited	
				Flooding	0.20
28B:					
Tarboro-------------	95	Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00
		Droughty	0.92	Droughty	0.92
		Leaching	0.45	Too acid	0.91
29A:					
Tomotley------------	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Leaching	0.70	Too acid	1.00
		Too acid	0.68	Flooding	0.40
30B:					
Uchee---------------	80	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Leaching	0.45	Too acid	0.96
		Too acid	0.37		

Table 8.—Agricultural Waste Management, Part I—Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food-processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
30C:					
Uchee	80	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Leaching	0.45	Too acid	0.96
		Too acid	0.37	Slope	0.01
30D:					
Uchee	80	Very limited		Very limited	
		Filtering capacity	0.99	Filtering capacity	0.99
		Slope	0.63	Too acid	0.96
		Leaching	0.45	Slope	0.63
31:					
Udorthents	80	Not rated		Not rated	
32A:					
Urban land	50	Not rated		Not rated	
Udorthents	30	Not rated		Not rated	
33F:					
Winton	80	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Slow water movement	0.89	Too acid	0.96
		Depth to saturated zone	0.68	Slow water movement	0.78
34A:					
Yemassee	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too acid	0.68	Too acid	1.00
W:					
Water	100	Not rated		Not rated	

Table 8.—Agricultural Waste Management, Part II

(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	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
1B:					
Alaga	85	Very limited		Very limited	
		Too acid	1.00	Seepage	1.00
		Filtering capacity	0.99	Too acid	1.00
		Droughty	0.73		
2A:					
Altavista	85	Very limited		Very limited	
		Depth to saturated zone	0.99	Seepage	1.00
				Depth to saturated zone	0.99
				Flooding	0.40
2B:					
Altavista	85	Very limited		Very limited	
		Depth to saturated zone	0.99	Seepage	1.00
		Too steep for surface application	0.08	Depth to saturated zone	0.99
				Flooding	0.40
3A:					
Augusta	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Too acid	1.00	Depth to saturated zone	1.00
				Too acid	1.00
4A:					
Bibb	95	Very limited		Very limited	
		Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Depth to saturated zone	1.00
		Too acid	1.00	Seepage	1.00
5B:					
Bojac	75	Very limited		Very limited	
		Filtering capacity	0.99	Seepage	1.00
		Too steep for surface application	0.08	Flooding	0.20
		Too acid	0.03	Too acid	0.03
6A:					
Buncombe	80	Very limited		Very limited	
		Too acid	1.00	Flooding	1.00
		Filtering capacity	0.99	Seepage	1.00
		Droughty	0.91	Too acid	1.00

Table 8.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
7A:					
Chastain, frequently flooded	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Too acid	1.00
8A:					
Chastain, ponded	90	Very limited		Very limited	
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Ponding	1.00
		Flooding	1.00	Depth to saturated zone	1.00
9A:					
Chewacla	95	Very limited		Very limited	
		Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Depth to saturated zone	1.00
		Too acid	1.00	Seepage	1.00
10A:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Seepage	1.00
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Too acid	0.07	Too acid	0.07
10B:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Seepage	1.00
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Too steep for surface application	0.08	Too acid	0.07
10C:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Seepage	1.00
		Too steep for surface application	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	0.86	Too steep for surface application	0.22
11B:					
Craven	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	0.86	Too acid	0.07
		Too steep for surface application	0.08		

Table 8.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
11C:					
Craven	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Depth to saturated zone	0.86
		Too steep for surface application	1.00	Too steep for surface application	0.22
		Depth to saturated zone	0.86	Too acid	0.07
12A:					
Dorovan	85	Very limited		Very limited	
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Ponding	1.00
		Flooding	1.00	Depth to saturated zone	1.00
13A:					
Emporia	95	Very limited		Very limited	
		Slow water movement	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91
		Depth to saturated zone	0.09	Depth to saturated zone	0.09
13B:					
Emporia	95	Very limited		Very limited	
		Slow water movement	1.00	Seepage	1.00
		Too acid	0.91	Too acid	0.91
		Depth to saturated zone	0.09	Depth to saturated zone	0.09
13C:					
Emporia	90	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Slow water movement	1.00	Too acid	0.91
		Too acid	0.91	Too steep for surface application	0.22
14A:					
Exum	85	Somewhat limited		Very limited	
		Depth to saturated zone	0.90	Seepage	1.00
		Too acid	0.67	Depth to saturated zone	0.90
		Slow water movement	0.22	Too acid	0.67
15A:					
Munden	85	Very limited		Very limited	
		Depth to saturated zone	0.99	Seepage	1.00
		Too acid	0.21	Depth to saturated zone	0.99
		Droughty	0.03	Flooding	0.40

Table 8.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
15B:					
Munden	85	Very limited		Very limited	
		Depth to saturated zone	0.99	Seepage	1.00
		Too acid	0.21	Depth to saturated zone	0.99
		Too steep for surface application	0.08	Flooding	0.40
16A:					
Myatt	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Too acid	1.00	Seepage	1.00
				Too acid	1.00
17A:					
Nansemond	85	Very limited		Very limited	
		Filtering capacity	0.99	Seepage	1.00
		Depth to saturated zone	0.99	Depth to saturated zone	0.99
		Too acid	0.91	Too acid	0.91
17B:					
Nansemond	85	Very limited		Very limited	
		Filtering capacity	0.99	Seepage	1.00
		Depth to saturated zone	0.99	Depth to saturated zone	0.99
		Too acid	0.91	Too acid	0.91
18F:					
Nevarc	45	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Slow water movement	1.00		1.00
				Too acid	1.00
Remlik	35	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Filtering capacity	0.99	Too acid	0.96
					0.96
19A:					
Nimmo	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Too acid	1.00	Depth to saturated zone	1.00
				Too acid	1.00

Table 8.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
20B:					
Ocilla	90	Very limited		Very limited	
		Too acid	1.00	Seepage	1.00
		Filtering capacity	0.99	Too acid	1.00
		Depth to saturated zone	0.99	Depth to saturated zone	0.99
20C:					
Ocilla	65	Very limited		Very limited	
		Too acid	1.00	Seepage	1.00
		Too steep for surface application	1.00	Too acid	1.00
		Filtering capacity	0.99	Depth to saturated zone	0.99
21A:					
Pactolus	80	Very limited		Very limited	
		Too acid	1.00	Seepage	1.00
		Filtering capacity	0.99	Too acid	1.00
		Depth to saturated zone	0.95	Depth to saturated zone	0.95
22A:					
Riverview	75	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Too acid	1.00	Seepage	1.00
				Too acid	1.00
23A:					
Roanoke	95	Very limited		Very limited	
		Depth to saturated zone	1.00	Flooding	1.00
		Slow water movement	1.00	Depth to saturated zone	1.00
		Too acid	1.00	Seepage	1.00
24B:					
Rumford	45	Very limited		Very limited	
		Filtering capacity	0.99	Seepage	1.00
		Too acid	0.03	Too acid	0.03
Kenansville	35	Very limited		Very limited	
		Filtering capacity	0.99	Seepage	1.00
		Droughty	0.62	Too acid	0.42
		Too acid	0.42		
Uchee	15	Very limited		Very limited	
		Filtering capacity	0.99	Seepage	1.00
		Too acid	0.96	Too acid	0.96

Table 8.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
24C:					
Rumford	45	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Filtering capacity	0.99	Too steep for surface application	0.22
		Too steep for sprinkler application	0.10	Too acid	0.03
Kenansville	35	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Filtering capacity	0.99	Too acid	0.42
		Droughty	0.62	Too steep for surface application	0.22
Uchee	15	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Filtering capacity	0.99	Too acid	0.96
		Too acid	0.96	Too steep for surface application	0.22
25A:					
Seabrook	80	Very limited		Very limited	
		Too acid	1.00	Seepage	1.00
		Filtering capacity	0.99	Too acid	1.00
		Droughty	0.99	Depth to saturated zone	0.68
26A:					
Slagle	85	Somewhat limited		Very limited	
		Depth to saturated zone	0.86	Seepage	1.00
		Slow water movement	0.78	Depth to saturated zone	0.86
26B:					
Slagle	85	Somewhat limited		Very limited	
		Depth to saturated zone	0.86	Seepage	1.00
		Slow water movement	0.78	Depth to saturated zone	0.86
		Too steep for surface application	0.08		
26C:					
Slagle	80	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
		Slow water movement	0.78	Too steep for surface application	0.22

Table 8.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
27A:					
State	95	Not limited		Very limited	
				Seepage	1.00
				Flooding	0.20
27B:					
State	85	Somewhat limited		Very limited	
		Too steep for surface application	0.08	Seepage	1.00
				Flooding	0.20
28B:					
Tarboro	95	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
		Droughty	0.92	Too acid	0.91
		Too acid	0.91		
29A:					
Tomotley	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Too acid	1.00	Depth to saturated zone	1.00
				Too acid	1.00
30B:					
Uchee	80	Very limited		Very limited	
		Filtering capacity	0.99	Seepage	1.00
		Too acid	0.96	Too acid	0.96
30C:					
Uchee	80	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Filtering capacity	0.99	Too acid	0.96
		Too acid	0.96	Too steep for surface application	0.22
30D:					
Uchee	80	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Filtering capacity	0.99	Too steep for surface application	1.00
		Too acid	0.96	Too acid	0.96
31:					
Udorthents	80	Not rated		Not rated	
32A:					
Urban land	50	Not rated		Not rated	
Udorthents	30	Not rated		Not rated	

Table 8.—Agricultural Waste Management, Part II—Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation: Rating class and limiting features	Value	Overland flow of wastewater: Rating class and limiting features	Value
33F:					
Winton--------------	80	Very limited		Very limited	
		Too steep for surface application	1.00	Seepage	1.00
		Too steep for sprinkler application	1.00	Too steep for surface application	1.00
		Too acid	0.96	Too acid	0.96
34A:					
Yemassee------------	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Too acid	1.00	Depth to saturated zone	1.00
				Too acid	1.00
W:					
Water---------------	100	Not rated		Not rated	

Table 8.—Agricultural Waste Management, Part III

(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	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
1B:					
Alaga	85	Somewhat limited		Very limited	
		Too acid	0.03	Too acid	1.00
				Filtering capacity	0.99
2A:					
Altavista	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Slow water movement	1.00		
		Too acid	0.07		
2B:					
Altavista	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Slow water movement	1.00	Too steep for surface application	0.08
		Too acid	0.07		
3A:					
Augusta	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Too acid	1.00
		Too acid	0.07		
4A:					
Bibb	95	Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	1.00
		Slow water movement	1.00	Too acid	1.00
5B:					
Bojac	75	Very limited		Very limited	
		Depth to saturated zone	1.00	Filtering capacity	0.99
		Slow water movement	0.32	Too steep for surface application	0.08
				Too acid	0.03
6A:					
Buncombe	80	Somewhat limited		Very limited	
		Flooding	0.60	Too acid	1.00
		Too acid	0.07	Filtering capacity	0.99
				Flooding	0.60

Table 8.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
7A:					
Chastain, frequently flooded------------	90	Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Too acid	1.00
8A:					
Chastain, ponded----	90	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Flooding	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Flooding	1.00
9A:					
Chewacla------------	95	Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	1.00
		Slow water movement	1.00	Too acid	1.00
10A:					
Craven--------------	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Slow water movement	0.98
		Depth to saturated zone	1.00	Depth to saturated zone	0.86
		Too acid	0.14	Too acid	0.07
10B:					
Craven--------------	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Slow water movement	0.98
		Depth to saturated zone	1.00	Depth to saturated zone	0.86
		Too acid	0.14	Too steep for surface application	0.08
10C:					
Craven--------------	85	Very limited		Very limited	
		Slow water movement	1.00	Too steep for surface application	1.00
		Depth to saturated zone	1.00	Slow water movement	0.98
		Slope	1.00	Depth to saturated zone	0.86
11B:					
Craven--------------	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Slow water movement	0.98
		Depth to saturated zone	1.00	Depth to saturated zone	0.86
		Too acid	0.14	Too steep for surface application	0.08

Table 8.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
11C:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Too steep for surface application	1.00
		Depth to saturated zone	1.00	Slow water movement	0.98
		Slope	1.00	Depth to saturated zone	0.86
12A:					
Dorovan	85	Very limited		Very limited	
		Ponding	1.00	Ponding	1.00
		Flooding	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Flooding	1.00
13A:					
Emporia	95	Very limited		Somewhat limited	
		Slow water movement	1.00	Slow water movement	0.94
		Depth to saturated zone	0.09	Too acid	0.91
				Depth to saturated zone	0.09
13B:					
Emporia	95	Very limited		Somewhat limited	
		Slow water movement	1.00	Slow water movement	0.94
		Depth to saturated zone	0.09	Too acid	0.91
				Depth to saturated zone	0.09
13C:					
Emporia	90	Very limited		Very limited	
		Slow water movement	1.00	Too steep for surface application	1.00
		Slope	1.00		
		Depth to saturated zone	0.09	Slow water movement	0.94
				Too acid	0.91
14A:					
Exum	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Depth to saturated zone	0.90
		Depth to saturated zone	1.00	Too acid	0.67
				Slow water movement	0.15
		Too acid	0.14		
15A:					
Munden	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Slow water movement	0.62	Too acid	0.21
		Too acid	0.14		

Table 8.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
15B:					
Munden	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99
		Slow water movement	0.62	Too acid	0.21
		Too acid	0.14	Too steep for surface application	0.08
16A:					
Myatt	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Too acid	1.00
		Too acid	0.55		
17A:					
Nansemond	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Filtering capacity	0.99
		Slow water movement	0.32	Depth to saturated zone	0.99
		Too acid	0.14	Too acid	0.91
17B:					
Nansemond	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Filtering capacity	0.99
		Slow water movement	0.32	Depth to saturated zone	0.99
		Too acid	0.14	Too acid	0.91
18F:					
Nevarc	45	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00		
		Depth to saturated zone	0.99	Too steep for sprinkler irrigation	1.00
				Too acid	1.00
Remlik	35	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	0.62		
				Too steep for sprinkler irrigation	1.00
				Filtering capacity	0.99
19A:					
Nimmo	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Too acid	1.00
		Too acid	0.14		

Table 8.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
20B:					
Ocilla	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Too acid	1.00
		Slow water movement	1.00	Filtering capacity	0.99
		Too acid	0.07	Depth to saturated zone	0.99
20C:					
Ocilla	65	Very limited		Very limited	
		Depth to saturated zone	1.00	Too acid	1.00
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Filtering capacity	0.99
21A:					
Pactolus	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Too acid	1.00
		Too acid	0.07	Filtering capacity	0.99
				Depth to saturated zone	0.95
22A:					
Riverview	75	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Too acid	1.00
		Slow water movement	1.00		
23A:					
Roanoke	95	Very limited		Very limited	
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Too acid	1.00
		Flooding	0.60	Slow water movement	0.94
24B:					
Rumford	45	Somewhat limited		Very limited	
		Slow water movement	0.32	Filtering capacity	0.99
				Too acid	0.03
Kenansville	35	Very limited		Very limited	
		Depth to saturated zone	1.00	Filtering capacity	0.99
		Slow water movement	0.62	Too acid	0.42
		Too acid	0.14		
Uchee	15	Very limited		Very limited	
		Slow water movement	1.00	Filtering capacity	0.99
		Too acid	0.03	Too acid	0.96

Table 8.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
24C:					
Rumford	45	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	0.32	Filtering capacity	0.99
				Too steep for sprinkler irrigation	0.22
Kenansville	35	Very limited		Very limited	
		Depth to saturated zone	1.00	Too steep for surface application	1.00
		Slope	1.00	Filtering capacity	0.99
		Slow water movement	0.62	Too acid	0.42
Uchee	15	Very limited		Very limited	
		Slow water movement	1.00	Too steep for surface application	1.00
		Slope	1.00	Filtering capacity	0.99
		Too acid	0.03	Too acid	0.96
25A:					
Seabrook	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Too acid	1.00
				Filtering capacity	0.99
				Depth to saturated zone	0.68
26A:					
Slagle	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	0.86	Slow water movement	0.60
		Too acid	0.14		
26B:					
Slagle	85	Very limited		Somewhat limited	
		Slow water movement	1.00	Depth to saturated zone	0.86
		Depth to saturated zone	0.86	Slow water movement	0.60
		Too acid	0.14	Too steep for surface application	0.08

Table 8.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater: Rating class and limiting features	Value	Slow rate treatment of wastewater: Rating class and limiting features	Value
26C:					
Slagle	80	Very limited		Very limited	
		Slow water movement	1.00	Too steep for surface application	1.00
		Slope	1.00		
		Depth to saturated zone	0.86	Depth to saturated zone	0.86
				Slow water movement	0.60
27A:					
State	95	Very limited		Not limited	
		Depth to saturated zone	1.00		
		Slow water movement	1.00		
27B:					
State	85	Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Too steep for surface application	0.08
		Slow water movement	1.00		
28B:					
Tarboro	95	Not limited		Very limited	
				Filtering capacity	1.00
				Too acid	0.91
29A:					
Tomotley	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Too acid	1.00
		Too acid	0.07		
30B:					
Uchee	80	Very limited		Very limited	
		Slow water movement	1.00	Filtering capacity	0.99
		Too acid	0.03	Too acid	0.96
30C:					
Uchee	80	Very limited		Very limited	
		Slow water movement	1.00	Too steep for surface application	1.00
		Slope	1.00		
		Too acid	0.03	Filtering capacity	0.99
				Too acid	0.96

Table 8.—Agricultural Waste Management, Part III—Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
30D:					
Uchee	80	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
		Too acid	0.03	Filtering capacity	0.99
31:					
Udorthents	80	Not rated		Not rated	
32A:					
Urban land	50	Not rated		Not rated	
Udorthents	30	Not rated		Not rated	
33F:					
Winton	80	Very limited		Very limited	
		Slope	1.00	Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
		Depth to saturated zone	0.68	Too acid	0.96
34A:					
Yemassee	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00	Too acid	1.00
		Too acid	0.07		
W:					
Water	100	Not rated		Not rated	

Table 9.—Forestland Productivity

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
1B:				
Alaga	loblolly pine	80	114	loblolly pine, longleaf pine
	longleaf pine	70	86	
2A:				
Altavista	loblolly pine	91	129	loblolly pine, longleaf pine, white oak
	longleaf pine	87	114	
	white oak	77	57	
2B:				
Altavista	loblolly pine	91	129	loblolly pine, longleaf pine, white oak
	longleaf pine	87	114	
	white oak	77	57	
3A:				
Augusta	American sycamore	90	100	cherrybark oak, loblolly pine, southern red oak, sweetgum, white oak
	loblolly pine	90	129	
	southern red oak	80	57	
	sweetgum	90	100	
	white oak	80	57	
4A:				
Bibb	sweetgum	90	100	eastern cottonwood, loblolly pine, sweetgum
	water oak	90	86	
	loblolly pine	100	157	
5B:				
Bojac	loblolly pine	80	114	southern red oak, loblolly pine, longleaf pine
	southern red oak	70	57	
	sweetgum	80	86	
6A:				
Buncombe	loblolly pine	90	129	eastern white pine, loblolly pine, yellow-poplar
	yellow-poplar	100	114	
7A:				
Chastain, frequently flooded	sweetgum	95	114	baldcypress, sweetgum
8A:				
Chastain, ponded	sweetgum	95	114	baldcypress, sweetgum
9A:				
Chewacla	loblolly pine	95	143	American sycamore, loblolly pine, sweetgum, yellow-poplar
	sweetgum	97	129	
	water oak	80	72	
	yellow-poplar	95	100	
10A:				
Craven	loblolly pine	88	129	loblolly pine, longleaf pine, southern red oak, white oak
	southern red oak	90	72	
	white oak	90	72	
	willow oak	85	86	

Table 9.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
10B:				
Craven	loblolly pine	88	129	loblolly pine, longleaf pine, southern red oak, white oak
	southern red oak	90	72	
	white oak	90	72	
	willow oak	85	86	
10C:				
Craven	loblolly pine	88	129	loblolly pine, longleaf pine, southern red oak, white oak
	southern red oak	90	72	
	white oak	90	72	
	willow oak	85	86	
11B:				
Craven, severely eroded	loblolly pine	80	114	loblolly pine, longleaf pine, southern red oak, white oak
11C:				
Craven, severely eroded	loblolly pine	80	114	loblolly pine, longleaf pine
12A:				
Dorovan	blackgum	70	100	---
13A:				
Emporia	loblolly pine	75	100	loblolly pine, longleaf pine, southern red oak
	southern red oak	70	57	
13B:				
Emporia	loblolly pine	75	100	loblolly pine, longleaf pine, southern red oak
	southern red oak	70	57	
13C:				
Emporia	loblolly pine	75	100	loblolly pine, longleaf pine, southern red oak
	southern red oak	70	57	
14A:				
Exum	loblolly pine	82	114	loblolly pine, longleaf pine
15A:				
Munden	loblolly pine	90	129	loblolly pine, longleaf pine, white oak
	sweetgum	90	100	
	white oak	76	57	
15B:				
Munden	loblolly pine	90	129	loblolly pine, longleaf pine, white oak
	sweetgum	90	100	
	white oak	76	57	
16A:				
Myatt	loblolly pine	88	129	loblolly pine, sweetgum
	sweetgum	92	114	
	water oak	86	86	

Table 9.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
17A:				
Nansemond	loblolly pine	86	129	black walnut, loblolly pine, longleaf pine, sweetgum, yellow-poplar
	shortleaf pine	77	129	
	sweetgum	90	100	
	yellow-poplar	90	86	
17B:				
Nansemond	loblolly pine	86	129	black walnut, loblolly pine, longleaf pine, sweetgum, yellow-poplar
	shortleaf pine	77	129	
	sweetgum	90	100	
	yellow-poplar	90	86	
18F:				
Nevarc	loblolly pine	77	100	loblolly pine, longleaf pine, southern red oak, white oak, yellow-poplar
	southern red oak	70	57	
	sweetgum	76	72	
	white oak	70	57	
	yellow-poplar	80	72	
Remlik	loblolly pine	80	114	loblolly pine, longleaf pine, southern red oak, yellow-poplar
	southern red oak	74	57	
	Virginia pine	74	114	
	yellow-poplar	80	72	
19A:				
Nimmo	loblolly pine	95	143	loblolly pine, sweetgum
	southern red oak	80	72	
	sweetgum	95	114	
	water oak	80	72	
	white oak	80	57	
20B:				
Ocilla	loblolly pine	79	114	loblolly pine
20C:				
Ocilla	loblolly pine	79	114	loblolly pine
21A:				
Pactolus	loblolly pine	86	129	loblolly pine, longleaf pine
22A:				
Riverview	loblolly pine	100	157	loblolly pine, sweetgum, yellow-poplar
	sweetgum	100	143	
	yellow-poplar	110	129	
23A:				
Roanoke	sweetgum	90	100	sweetgum
	white oak	75	57	
	willow oak	76	57	
	loblolly pine	99	95	
24B:				
Rumford	loblolly pine	80	114	loblolly pine, longleaf pine
	southern red oak	65	43	
	Virginia pine	70	114	

Table 9.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
24B:				
Kenansville	loblolly pine	80	114	loblolly pine, longleaf pine
	longleaf pine	65	72	
Uchee	loblolly pine	80	114	loblolly pine, longleaf pine
	longleaf pine	67	72	
24C:				
Rumford	loblolly pine	80	114	loblolly pine, longleaf pine
	southern red oak	65	43	
	Virginia pine	70	114	
Kenansville	loblolly pine	80	114	loblolly pine, longleaf pine
	longleaf pine	65	72	
Uchee	loblolly pine	80	114	loblolly pine, longleaf pine
	longleaf pine	67	72	
25A:				
Seabrook	loblolly pine	81	114	loblolly pine, longleaf pine
26A:				
Slagle	loblolly pine	86	129	loblolly pine, longleaf pine, sweetgum, yellow-poplar
	southern red oak	76	57	
	sweetgum	86	100	
	water oak	76	72	
	yellow-poplar	90	86	
26B:				
Slagle	loblolly pine	86	129	loblolly pine, longleaf pine, sweetgum, yellow-poplar
	southern red oak	76	57	
	sweetgum	86	100	
	water oak	76	72	
	yellow-poplar	90	86	
26C:				
Slagle	loblolly pine	86	129	loblolly pine, longleaf pine, sweetgum, yellow-poplar
	southern red oak	76	57	
	sweetgum	86	100	
	water oak	76	72	
	yellow-poplar	90	86	
27A:				
State	loblolly pine	86	129	loblolly pine, longleaf pine, yellow-poplar
	southern red oak	85	72	
	Virginia pine	85	129	
	yellow-poplar	100	114	
27B:				
State	loblolly pine	86	129	loblolly pine, longleaf pine, yellow-poplar
	southern red oak	85	72	
	Virginia pine	85	129	
	yellow-poplar	100	114	
28B:				
Tarboro	loblolly pine	72	100	loblolly pine, longleaf pine

Table 9.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
29A:				
Tomotley	loblolly pine	97	143	loblolly pine
	water oak	78	72	
	willow oak	86	86	
30B:				
Uchee	loblolly pine	80	114	loblolly pine, longleaf pine
	longleaf pine	67	72	
30C:				
Uchee	loblolly pine	80	114	loblolly pine, longleaf pine
	longleaf pine	67	72	
30D:				
Uchee	loblolly pine	80	114	loblolly pine, longleaf pine
	longleaf pine	67	72	
31. Udorthents				
32A. Urban land-Udorthents				
33F:				
Winton	loblolly pine	93	143	loblolly pine, longleaf pine
34A:				
Yemassee	loblolly pine	90	129	American sycamore, loblolly pine, yellow-poplar
	sweetgum	95	114	
	yellow-poplar	100	114	
W. Water				

Table 10.—Forestland Management, Part I

(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
1B:							
Alaga---------------	85	Slight		Well suited		Moderate	
						Low strength	0.50
2A:							
Altavista-----------	85	Slight		Well suited		Moderate	
						Low strength	0.50
2B:							
Altavista-----------	85	Slight		Well suited		Moderate	
						Low strength	0.50
3A:							
Augusta-------------	85	Slight		Moderately suited		Moderate	
				Wetness	0.50	Low strength	0.50
4A:							
Bibb----------------	95	Severe		Poorly suited		Moderate	
		Flooding	1.00	Flooding	1.00	Low strength	0.50
				Wetness	1.00		
5B:							
Bojac---------------	75	Slight		Well suited		Moderate	
						Low strength	0.50
6A:							
Buncombe------------	80	Severe		Poorly suited		Moderate	
		Flooding	1.00	Flooding	1.00	Low strength	0.50
7A:							
Chastain, frequently flooded------------	90	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		
8A:							
Chastain, ponded----	90	Severe		Poorly suited		Severe	
		Flooding	1.00	Ponding	1.00	Low strength	1.00
		Wetness	1.00	Flooding	1.00		
		Low strength	0.50	Wetness	1.00		
9A:							
Chewacla------------	95	Severe		Poorly suited		Severe	
		Flooding	1.00	Flooding	1.00	Low strength	1.00
		Low strength	0.50	Wetness	0.50		
				Low strength	0.50		
10A:							
Craven--------------	85	Slight		Well suited		Moderate	
						Low strength	0.50

Table 10.—Forestland Management, Part I—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
10B:							
Craven--------------	85	Slight		Well suited		Moderate	
						Low strength	0.50
10C:							
Craven--------------	85	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
11B:							
Craven--------------	85	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
11C:							
Craven--------------	85	Moderate		Moderately suited		Severe	
		Low strength	0.50	Slope	0.50	Low strength	1.00
				Low strength	0.50		
12A:							
Dorovan-------------	85	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	1.00		
13A:							
Emporia-------------	95	Slight		Well suited		Moderate	
						Low strength	0.50
13B:							
Emporia-------------	95	Slight		Well suited		Moderate	
						Low strength	0.50
13C:							
Emporia-------------	90	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
14A:							
Exum----------------	85	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
15A:							
Munden--------------	85	Slight		Well suited		Moderate	
						Low strength	0.50
15B:							
Munden--------------	85	Slight		Well suited		Moderate	
						Low strength	0.50
16A:							
Myatt---------------	90	Moderate		Poorly suited		Severe	
		Low strength	0.50	Wetness	1.00	Low strength	1.00
				Low strength	0.50		
17A:							
Nansemond-----------	85	Slight		Well suited		Moderate	
						Low strength	0.50
17B:							
Nansemond-----------	85	Slight		Well suited		Moderate	
						Low strength	0.50

Table 10.—Forestland Management, Part I—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
18F:							
Nevarc--------------	45	Severe		Poorly suited		Severe	
		Slope	1.00	Slope	1.00	Low strength	1.00
		Low strength	0.50	Low strength	0.50		
Remlik--------------	35	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
19A:							
Nimmo---------------	80	Slight		Poorly suited		Moderate	
				Wetness	1.00	Low strength	0.50
20B:							
Ocilla--------------	90	Slight		Well suited		Moderate	
						Low strength	0.50
20C:							
Ocilla--------------	65	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
21A:							
Pactolus------------	80	Slight		Well suited		Moderate	
						Low strength	0.50
22A:							
Riverview-----------	75	Severe		Poorly suited		Moderate	
		Flooding	1.00	Flooding	1.00	Low strength	0.50
23A:							
Roanoke-------------	95	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		
24B:							
Rumford-------------	45	Slight		Well suited		Moderate	
						Low strength	0.50
Kenansville---------	35	Slight		Well suited		Moderate	
						Low strength	0.50
Uchee---------------	15	Slight		Well suited		Moderate	
						Low strength	0.50
24C:							
Rumford-------------	45	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
Kenansville---------	35	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
Uchee---------------	15	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
25A:							
Seabrook------------	80	Slight		Well suited		Moderate	
						Low strength	0.50

Table 10.—Forestland Management, Part I—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
26A:							
Slagle---------------	85	Slight		Well suited		Moderate	
						Low strength	0.50
26B:							
Slagle---------------	85	Slight		Well suited		Moderate	
						Low strength	0.50
26C:							
Slagle---------------	80	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
27A:							
State----------------	95	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
27B:							
State----------------	85	Moderate		Moderately suited		Severe	
		Low strength	0.50	Low strength	0.50	Low strength	1.00
28B:							
Tarboro--------------	95	Slight		Well suited		Moderate	
						Low strength	0.50
29A:							
Tomotley-------------	90	Moderate		Poorly suited		Moderate	
		Sandiness	0.50	Wetness	1.00	Low strength	0.50
30B:							
Uchee----------------	80	Slight		Well suited		Moderate	
						Low strength	0.50
30C:							
Uchee----------------	80	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
30D:							
Uchee----------------	80	Slight		Moderately suited		Moderate	
				Slope	0.50	Low strength	0.50
31:							
Udorthents-----------	80	Not rated		Not rated		Not rated	
32A:							
Urban land-----------	50	Not rated		Not rated		Not rated	
Udorthents-----------	30	Not rated		Not rated		Not rated	
33F:							
Winton---------------	80	Severe		Poorly suited		Moderate	
		Slope	1.00	Slope	1.00	Low strength	0.50
		Low strength	0.50				
34A:							
Yemassee-------------	80	Slight		Well suited		Moderate	
						Low strength	0.50
W:							
Water----------------	100	Not rated		Not rated		Not rated	

Table 10.—Forestland Management, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Hazard of off-road or off-trail erosion: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
1B:							
Alaga	85	Slight		Slight		Well suited	
2A:							
Altavista	85	Slight		Slight		Well suited	
2B:							
Altavista	85	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
3A:							
Augusta	85	Slight		Slight		Moderately suited	
						Wetness	0.50
4A:							
Bibb	95	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
5B:							
Bojac	75	Slight		Slight		Well suited	
6A:							
Buncombe	80	Slight		Slight		Poorly suited	
						Flooding	1.00
7A:							
Chastain, frequently flooded	90	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
						Low strength	0.50
8A:							
Chastain, ponded	90	Slight		Slight		Poorly suited	
						Ponding	1.00
						Flooding	1.00
						Wetness	1.00
9A:							
Chewacla	95	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	0.50
						Low strength	0.50
10A:							
Craven	85	Slight		Slight		Well suited	
10B:							
Craven	85	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		

Table 10.—Forestland Management, Part II—Continued

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
10C:							
Craven	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
11B:							
Craven	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
11C:							
Craven	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
						Low strength	0.50
12A:							
Dorovan	85	Very severe		Very severe		Poorly suited	
		Organic matter content high	1.00	Organic matter content high	1.00	Ponding	1.00
						Flooding	1.00
						Low strength	1.00
13A:							
Emporia	95	Slight		Slight		Well suited	
13B:							
Emporia	95	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
13C:							
Emporia	90	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
14A:							
Exum	85	Slight		Slight		Moderately suited	
						Low strength	0.50
15A:							
Munden	85	Slight		Slight		Well suited	
15B:							
Munden	85	Slight		Slight		Well suited	
16A:							
Myatt	90	Slight		Slight		Poorly suited	
						Wetness	1.00
						Low strength	0.50
17A:							
Nansemond	85	Slight		Slight		Well suited	
17B:							
Nansemond	85	Slight		Slight		Well suited	
18F:							
Nevarc	45	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
						Low strength	0.50
Remlik	35	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00

Table 10.—Forestland Management, Part II—Continued

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
19A:							
Nimmo	80	Slight		Slight		Poorly suited	
						Wetness	1.00
20B:							
Ocilla	90	Slight		Slight		Well suited	
20C:							
Ocilla	65	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
21A:							
Pactolus	80	Slight		Slight		Well suited	
22A:							
Riverview	75	Slight		Slight		Poorly suited	
						Flooding	1.00
23A:							
Roanoke	95	Slight		Slight		Poorly suited	
						Flooding	1.00
						Wetness	1.00
						Low strength	0.50
24B:							
Rumford	45	Slight		Slight		Well suited	
Kenansville	35	Slight		Slight		Well suited	
Uchee	15	Slight		Slight		Well suited	
24C:							
Rumford	45	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Kenansville	35	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
Uchee	15	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
25A:							
Seabrook	80	Slight		Slight		Well suited	
26A:							
Slagle	85	Slight		Slight		Well suited	
26B:							
Slagle	85	Slight		Moderate		Well suited	
				Slope/erodibility	0.50		
26C:							
Slagle	80	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
27A:							
State	95	Slight		Slight		Moderately suited	
						Low strength	0.50

Table 10.—Forestland Management, Part II—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
27B:							
State	85	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Low strength	0.50
28B:							
Tarboro	95	Slight		Slight		Well suited	
29A:							
Tomotley	90	Slight		Slight		Poorly suited	
						Wetness	1.00
30B:							
Uchee	80	Slight		Slight		Well suited	
30C:							
Uchee	80	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
30D:							
Uchee	80	Slight		Moderate		Moderately suited	
				Slope/erodibility	0.50	Slope	0.50
31:							
Udorthents	80	Not rated		Not rated		Not rated	
32A:							
Urban land	50	Not rated		Not rated		Not rated	
Udorthents	30	Not rated		Not rated		Not rated	
33F:							
Winton	80	Severe		Severe		Poorly suited	
		Slope/erodibility	0.75	Slope/erodibility	0.95	Slope	1.00
34A:							
Yemassee	80	Slight		Slight		Well suited	
W:							
Water	100	Not rated		Not rated		Not rated	

Table 10.—Forestland Management, Part III

(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
1B:							
Alaga	85	Well suited		Well suited		Well suited	
2A:							
Altavista	85	Well suited		Well suited		Well suited	
2B:							
Altavista	85	Well suited		Well suited		Well suited	
3A:							
Augusta	85	Well suited		Well suited		Well suited	
4A:							
Bibb	95	Well suited		Well suited		Well suited	
5B:							
Bojac	75	Well suited		Well suited		Well suited	
6A:							
Buncombe	80	Well suited		Well suited		Well suited	
7A:							
Chastain, frequently flooded	90	Moderately suited		Moderately suited		Moderately suited	
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
8A:							
Chastain, ponded	90	Poorly suited		Poorly suited		Poorly suited	
		Wetness	0.75	Wetness	0.75	Wetness	1.00
		Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
9A:							
Chewacla	95	Well suited		Well suited		Moderately suited	
						Low strength	0.50
10A:							
Craven	85	Poorly suited		Poorly suited		Well suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75		
10B:							
Craven	85	Poorly suited		Poorly suited		Well suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75		
10C:							
Craven	85	Poorly suited		Poorly suited		Well suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75		
				Slope	0.50		

Table 10.—Forestland Management, Part III—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
11B:							
Craven	85	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
11C:							
Craven	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		
12A:							
Dorovan	85	Poorly suited		Poorly suited		Poorly suited	
		Wetness	0.75	Wetness	0.75	Low strength	1.00
						Wetness	1.00
13A:							
Emporia	95	Well suited		Well suited		Well suited	
13B:							
Emporia	95	Well suited		Well suited		Well suited	
13C:							
Emporia	90	Well suited		Moderately suited		Well suited	
				Slope	0.50		
14A:							
Exum	85	Well suited		Well suited		Moderately suited	
						Low strength	0.50
15A:							
Munden	85	Well suited		Well suited		Well suited	
15B:							
Munden	85	Well suited		Well suited		Well suited	
16A:							
Myatt	90	Well suited		Well suited		Moderately suited	
						Low strength	0.50
17A:							
Nansemond	85	Well suited		Well suited		Well suited	
17B:							
Nansemond	85	Well suited		Well suited		Well suited	
18F:							
Nevarc	45	Moderately suited		Unsuited		Poorly suited	
		Stickiness; high plasticity index	0.50	Slope	1.00	Slope	1.00
				Stickiness; high plasticity index	0.50	Low strength	0.50
		Slope	0.50				
Remlik	35	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
19A:							
Nimmo	80	Well suited		Well suited		Well suited	
20B:							
Ocilla	90	Well suited		Well suited		Well suited	

Table 10.—Forestland Management, Part III—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
20C:							
Ocilla	65	Well suited		Moderately suited		Well suited	
				Slope	0.50		
21A:							
Pactolus	80	Well suited		Well suited		Well suited	
22A:							
Riverview	75	Well suited		Well suited		Well suited	
23A:							
Roanoke	95	Poorly suited		Poorly suited		Moderately suited	
		Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.75	Low strength	0.50
24B:							
Rumford	45	Well suited		Well suited		Well suited	
Kenansville	35	Well suited		Well suited		Well suited	
Uchee	15	Well suited		Well suited		Well suited	
24C:							
Rumford	45	Well suited		Moderately suited		Well suited	
				Slope	0.50		
Kenansville	35	Well suited		Moderately suited		Well suited	
				Slope	0.50		
Uchee	15	Well suited		Moderately suited		Well suited	
				Slope	0.50		
25A:							
Seabrook	80	Well suited		Well suited		Well suited	
26A:							
Slagle	85	Well suited		Well suited		Well suited	
26B:							
Slagle	85	Well suited		Well suited		Well suited	
26C:							
Slagle	80	Well suited		Moderately suited		Well suited	
				Slope	0.50		
27A:							
State	95	Well suited		Well suited		Moderately suited	
						Low strength	0.50
27B:							
State	85	Well suited		Well suited		Moderately suited	
						Low strength	0.50
28B:							
Tarboro	95	Well suited		Well suited		Well suited	
29A:							
Tomotley	90	Well suited		Well suited		Well suited	

Table 10.—Forestland Management, Part III—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
30B:							
Uchee---------------	80	Well suited		Well suited		Well suited	
30C:							
Uchee---------------	80	Well suited		Moderately suited		Well suited	
				Slope	0.50		
30D:							
Uchee---------------	80	Well suited		Moderately suited		Well suited	
				Slope	0.50		
31:							
Udorthents----------	80	Not rated		Not rated		Not rated	
32A:							
Urban land----------	50	Not rated		Not rated		Not rated	
Udorthents----------	30	Not rated		Not rated		Not rated	
33F:							
Winton--------------	80	Moderately suited		Unsuited		Poorly suited	
		Slope	0.50	Slope	1.00	Slope	1.00
34A:							
Yemassee------------	80	Well suited		Well suited		Well suited	
W:							
Water---------------	100	Not rated		Not rated		Not rated	

Table 10.—Forestland Management, Part IV

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)	
		Rating class and limiting features	Value	Rating class and limiting features	Value
1B:					
Alaga	85	Well suited		Well suited	
2A:					
Altavista	85	Well suited		Well suited	
2B:					
Altavista	85	Well suited		Well suited	
3A:					
Augusta	85	Well suited		Well suited	
4A:					
Bibb	95	Well suited		Well suited	
5B:					
Bojac	75	Well suited		Well suited	
6A:					
Buncombe	80	Well suited		Well suited	
7A:					
Chastain, frequently flooded	90	Well suited		Well suited	
8A:					
Chastain, ponded	90	Poorly suited		Unsuited	
		Wetness	0.75	Wetness	1.00
9A:					
Chewacla	95	Well suited		Well suited	
10A:					
Craven	85	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
10B:					
Craven	85	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
10C:					
Craven	85	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
11B:					
Craven	85	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		

Table 10.—Forestland Management, Part IV—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
11C:					
Craven	85	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
12A:					
Dorovan	85	Poorly suited		Unsuited	
		Wetness	0.75	Wetness	1.00
13A:					
Emporia	95	Well suited		Well suited	
13B:					
Emporia	95	Well suited		Well suited	
13C:					
Emporia	90	Well suited		Well suited	
14A:					
Exum	85	Well suited		Well suited	
15A:					
Munden	85	Well suited		Well suited	
15B:					
Munden	85	Well suited		Well suited	
16A:					
Myatt	90	Well suited		Well suited	
17A:					
Nansemond	85	Well suited		Well suited	
17B:					
Nansemond	85	Well suited		Well suited	
18F:					
Nevarc	45	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
Remlik	35	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
19A:					
Nimmo	80	Well suited		Well suited	
20B:					
Ocilla	90	Well suited		Well suited	
20C:					
Ocilla	65	Well suited		Well suited	
21A:					
Pactolus	80	Well suited		Well suited	
22A:					
Riverview	75	Well suited		Well suited	

Table 10.—Forestland Management, Part IV—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
23A:					
Roanoke	95	Poorly suited		Well suited	
		Stickiness; high plasticity index	0.50		
24B:					
Rumford	45	Well suited		Well suited	
Kenansville	35	Well suited		Well suited	
Uchee	15	Well suited		Well suited	
24C:					
Rumford	45	Well suited		Well suited	
Kenansville	35	Well suited		Well suited	
Uchee	15	Well suited		Well suited	
25A:					
Seabrook	80	Well suited		Well suited	
26A:					
Slagle	85	Well suited		Well suited	
26B:					
Slagle	85	Well suited		Well suited	
26C:					
Slagle	80	Well suited		Well suited	
27A:					
State	95	Well suited		Well suited	
27B:					
State	85	Well suited		Well suited	
28B:					
Tarboro	95	Well suited		Well suited	
29A:					
Tomotley	90	Well suited		Well suited	
30B:					
Uchee	80	Well suited		Well suited	
30C:					
Uchee	80	Well suited		Well suited	
30D:					
Uchee	80	Well suited		Well suited	
31:					
Udorthents	80	Not rated		Not rated	
32A:					
Urban land	50	Not rated		Not rated	
Udorthents	30	Not rated		Not rated	

Table 10.—Forestland Management, Part IV—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
33F:					
Winton	80	Unsuited		Unsuited	
		Slope	1.00	Slope	1.00
34A:					
Yemassee	80	Well suited		Well suited	
W:					
Water	100	Not rated		Not rated	

Table 10.—Forestland Management, Part V

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire		Potential for seedling mortality	
		Rating class and limiting features	Value	Rating class and limiting features	Value
1B:					
Alaga----------------	85	High		Low	
		Texture/surface depth/rock fragments	1.00		
2A:					
Altavista------------	85	Moderate		Low	
		Texture/rock fragments	0.50		
2B:					
Altavista------------	85	Moderate		Low	
		Texture/rock fragments	0.50		
3A:					
Augusta--------------	85	Moderate		Low	
		Texture/rock fragments	0.50		
4A:					
Bibb-----------------	95	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00
5B:					
Bojac----------------	75	Moderate		Low	
		Texture/rock fragments	0.50		
6A:					
Buncombe-------------	80	High		Low	
		Texture/rock fragments	1.00		
7A:					
Chastain, frequently flooded------------	90	Low		High	
		Texture/surface depth/rock fragments	0.10	Wetness	1.00
8A:					
Chastain, ponded----	90	Low		High	
		Texture/surface depth/rock fragments	0.10	Wetness	1.00
9A:					
Chewacla------------	95	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00

Table 10.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
10A:					
Craven	85	Moderate		Low	
		Texture/rock fragments	0.50		
10B:					
Craven	85	Moderate		Low	
		Texture/rock fragments	0.50		
10C:					
Craven	85	Moderate		Low	
		Texture/rock fragments	0.50		
11B:					
Craven	85	Low		Low	
11C:					
Craven	85	Low		Low	
12A:					
Dorovan	85	Low		High	
				Wetness	1.00
13A:					
Emporia	95	Moderate		Low	
		Texture/rock fragments	0.50		
13B:					
Emporia	95	Moderate		Low	
		Texture/rock fragments	0.50		
13C:					
Emporia	90	Moderate		Low	
		Texture/rock fragments	0.50		
14A:					
Exum	85	Moderate		Low	
		Texture/rock fragments	0.50		
15A:					
Munden	85	High		Low	
		Texture/rock fragments	1.00		
15B:					
Munden	85	High		Low	
		Texture/rock fragments	1.00		
16A:					
Myatt	90	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00

Table 10.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
17A:					
Nansemond-----------	85	High		Low	
		Texture/rock fragments	1.00		
17B:					
Nansemond-----------	85	High		Low	
		Texture/rock fragments	1.00		
18F:					
Nevarc--------------	45	High		Low	
		Texture/slope/ surface depth/ rock fragments	1.00		
Remlik--------------	35	High		Low	
		Texture/rock fragments	1.00		
19A:					
Nimmo---------------	80	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
20B:					
Ocilla--------------	90	High		Low	
		Texture/rock fragments	1.00		
20C:					
Ocilla--------------	65	High		Low	
		Texture/rock fragments	1.00		
21A:					
Pactolus------------	80	High		Low	
		Texture/rock fragments	1.00		
22A:					
Riverview-----------	75	Moderate		Low	
		Texture/rock fragments	0.50		
23A:					
Roanoke-------------	95	Moderate		High	
		Texture/rock fragments	0.50	Wetness	1.00
24B:					
Rumford-------------	45	High		Low	
		Texture/rock fragments	1.00		
Kenansville---------	35	High		Low	
		Texture/rock fragments	1.00		

Table 10.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
24B:					
Uchee	15	High		Low	
		Texture/rock fragments	1.00		
24C:					
Rumford	45	High		Low	
		Texture/rock fragments	1.00		
Kenansville	35	High		Low	
		Texture/rock fragments	1.00		
Uchee	15	High		Low	
		Texture/rock fragments	1.00		
25A:					
Seabrook	80	High		Low	
		Texture/rock fragments	1.00		
26A:					
Slagle	85	Moderate		Low	
		Texture/rock fragments	0.50		
26B:					
Slagle	85	Moderate		Low	
		Texture/rock fragments	0.50		
26C:					
Slagle	80	Moderate		Low	
		Texture/rock fragments	0.50		
27A:					
State	95	Moderate		Low	
		Texture/rock fragments	0.50		
27B:					
State	85	Moderate		Low	
		Texture/rock fragments	0.50		
28B:					
Tarboro	95	High		Low	
		Texture/rock fragments	1.00		
29A:					
Tomotley	90	Low		High	
		Texture/rock fragments	0.10	Wetness	1.00

Table 10.—Forestland Management, Part V—Continued

Map symbol and soil name	Pct. of map unit	Potential for damage to soil by fire: Rating class and limiting features	Potential for damage to soil by fire: Value	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value
30B:					
Uchee	80	High		Low	
		Texture/rock fragments	1.00		
30C:					
Uchee	80	High		Low	
		Texture/rock fragments	1.00		
30D:					
Uchee	80	High		Low	
		Texture/rock fragments	1.00		
31:					
Udorthents	80	Not rated		Not rated	
32A:					
Urban land	50	Not rated		Not rated	
Udorthents	30	Not rated		Not rated	
33F:					
Winton	80	Moderate		Low	
		Texture/rock fragments	0.50		
34A:					
Yemassee	80	Low		Moderate	
		Texture/rock fragments	0.10	Wetness	0.50
W:					
Water	100	Not rated		Not rated	

Table 11.—Recreational Development, Part I

(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
1B:							
Alaga	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
						Slope	0.12
2A:							
Altavista	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.19	Depth to saturated zone	0.39
		Depth to saturated zone	0.39				
2B:							
Altavista	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.19	Slope	0.50
		Depth to saturated zone	0.39			Depth to saturated zone	0.39
3A:							
Augusta	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.75	Depth to saturated zone	0.98
		Depth to saturated zone	0.98				
4A:							
Bibb	95	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
5B:							
Bojac	75	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.89	Too sandy	0.89
		Too sandy	0.89			Slope	0.50
6A:							
Buncombe	80	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.79	Too sandy	0.79
		Too sandy	0.79			Flooding	0.60
7A:							
Chastain, frequently flooded	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	0.94	Flooding	1.00
		Slow water movement	0.94	Flooding	0.40	Slow water movement	0.94
8A:							
Chastain, ponded	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	0.94	Ponding	1.00

Table 11.—Recreational Development, Part I—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
9A:							
Chewacla	95	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.94	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.40	Flooding	1.00
10A:							
Craven	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
10B:							
Craven	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
						Slope	0.50
10C:							
Craven	85	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.94	Slow water movement	0.94	Slope	1.00
		Slope	0.01	Slope	0.01	Slow water movement	0.94
11B:							
Craven	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.98	Slow water movement	0.98	Slow water movement	0.98
						Slope	0.50
11C:							
Craven	85	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.98	Slow water movement	0.98	Slope	1.00
		Slope	0.01	Slope	0.01	Slow water movement	0.98
12A:							
Dorovan	85	Not rated		Not rated		Not rated	
13A:							
Emporia	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
		Too sandy	0.01	Too sandy	0.01	Too sandy	0.01
13B:							
Emporia	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
		Too sandy	0.01	Too sandy	0.01	Slope	0.50
						Too sandy	0.01
13C:							
Emporia	90	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.60	Slow water movement	0.60	Slope	1.00
		Too sandy	0.01	Too sandy	0.01	Slow water movement	0.60
		Slope	0.01	Slope	0.01	Too sandy	0.01

Table 11.—Recreational Development, Part I—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
14A:							
Exum----------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
		Depth to saturated zone	0.01	Depth to saturated zone	0.01	Depth to saturated zone	0.01
15A:							
Munden--------------	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.84	Too sandy	0.84
		Too sandy	0.84	Depth to saturated zone	0.19	Depth to saturated zone	0.39
		Depth to saturated zone	0.39				
15B:							
Munden--------------	85	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.84	Too sandy	0.84
		Too sandy	0.84	Depth to saturated zone	0.19	Slope	0.50
		Depth to saturated zone	0.39			Depth to saturated zone	0.39
16A:							
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
17A:							
Nansemond-----------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.94	Too sandy	0.94	Too sandy	0.94
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
17B:							
Nansemond-----------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.94	Too sandy	0.94	Too sandy	0.94
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Slope	0.50
						Depth to saturated zone	0.39
18F:							
Nevarc--------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
Remlik--------------	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.36	Too sandy	0.36	Too sandy	0.36
19A:							
Nimmo---------------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00

Table 11.—Recreational Development, Part I—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
20B:							
Ocilla--------------	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.72	Too sandy	0.72	Too sandy	0.72
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Depth to saturated zone	0.39
						Slope	0.12
20C:							
Ocilla--------------	65	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.72	Too sandy	0.72	Slope	1.00
		Depth to saturated zone	0.39	Depth to saturated zone	0.19	Too sandy	0.72
		Slope	0.01	Slope	0.01	Depth to saturated zone	0.39
21A:							
Pactolus------------	80	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Too sandy	0.94	Too sandy	0.94
		Too sandy	0.94	Depth to saturated zone	0.03	Depth to saturated zone	0.07
		Depth to saturated zone	0.07				
22A:							
Riverview-----------	75	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.40	Flooding	1.00
23A:							
Roanoke-------------	95	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	0.94	Slow water movement	0.94
		Slow water movement	0.94			Flooding	0.60
24B:							
Rumford-------------	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
						Slope	0.12
Kenansville---------	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.84	Too sandy	0.84	Too sandy	0.84
						Slope	0.12
Uchee---------------	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.30	Too sandy	0.30	Too sandy	0.30
						Slope	0.12
24C:							
Rumford-------------	45	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.81	Too sandy	0.81	Slope	1.00
		Slope	0.01	Slope	0.01	Too sandy	0.81
Kenansville---------	35	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.84	Too sandy	0.84	Slope	1.00
		Slope	0.01	Slope	0.01	Too sandy	0.84
Uchee---------------	15	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.30	Too sandy	0.30	Slope	1.00
		Slope	0.01	Slope	0.01	Too sandy	0.30

Table 11.—Recreational Development, Part I—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
25A:							
Seabrook------------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Too sandy	0.81
26A:							
Slagle--------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
		Too sandy	0.01	Too sandy	0.01	Too sandy	0.01
26B:							
Slagle--------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.60	Slow water movement	0.60	Slow water movement	0.60
		Too sandy	0.01	Too sandy	0.01	Slope	0.50
						Too sandy	0.01
26C:							
Slagle--------------	80	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.60	Slow water movement	0.60	Slope	1.00
		Too sandy	0.01	Too sandy	0.01	Slow water movement	0.60
		Slope	0.01	Slope	0.01	Too sandy	0.01
27A:							
State---------------	95	Very limited		Not limited		Not limited	
		Flooding	1.00				
27B:							
State---------------	85	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Slope	0.50
28B:							
Tarboro-------------	95	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.79	Too sandy	0.79	Too sandy	0.79
						Slope	0.12
29A:							
Tomotley------------	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				
30B:							
Uchee---------------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.30	Too sandy	0.30	Too sandy	0.30
						Slope	0.12
30C:							
Uchee---------------	80	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.30	Too sandy	0.30	Slope	1.00
		Slope	0.01	Slope	0.01	Too sandy	0.30
30D:							
Uchee---------------	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
		Too sandy	0.30	Too sandy	0.30	Too sandy	0.30
31:							
Udorthents----------	80	Not rated		Not rated		Not rated	

Table 11.—Recreational Development, Part I—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
32A:							
Urban land----------	50	Not rated		Not rated		Not rated	
Udorthents----------	30	Not rated		Not rated		Not rated	
33F:							
Winton--------------	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
34A:							
Yemassee------------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
W:							
Water---------------	100	Not rated		Not rated		Not rated	

Table 11.—Recreational Development, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1B:							
Alaga	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.94
2A:							
Altavista	85	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.19
2B:							
Altavista	85	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.19
3A:							
Augusta	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.44	Depth to saturated zone	0.44	Depth to saturated zone	0.75
4A:							
Bibb	95	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
5B:							
Bojac	75	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.89	Too sandy	0.89		
6A:							
Buncombe	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.79	Too sandy	0.79	Droughty	0.98
						Flooding	0.60
7A:							
Chastain, frequently flooded	90	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
8A:							
Chastain, ponded	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
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
9A:							
Chewacla	95	Somewhat limited		Somewhat limited		Very limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Flooding	1.00
		Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.94

Table 11.—Recreational Development, Part II—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
10A:							
Craven	85	Not limited		Not limited		Not limited	
10B:							
Craven	85	Not limited		Not limited		Not limited	
10C:							
Craven	85	Not limited		Not limited		Somewhat limited	
						Slope	0.01
11B:							
Craven	85	Not limited		Not limited		Not limited	
11C:							
Craven	85	Not limited		Not limited		Somewhat limited	
						Slope	0.01
12A:							
Dorovan	85	Not rated		Not rated		Not rated	
13A:							
Emporia	95	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.01	Too sandy	0.01		
13B:							
Emporia	95	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.01	Too sandy	0.01		
13C:							
Emporia	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Slope	0.01
14A:							
Exum	85	Not limited		Not limited		Somewhat limited	
						Depth to saturated zone	0.01
15A:							
Munden	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.84	Too sandy	0.84	Depth to saturated zone	0.19
15B:							
Munden	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.84	Too sandy	0.84	Depth to saturated zone	0.19
16A:							
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
17A:							
Nansemond	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.94	Too sandy	0.94	Depth to saturated zone	0.19
17B:							
Nansemond	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.94	Too sandy	0.94	Depth to saturated zone	0.19

Table 11.—Recreational Development, Part II—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
18F:							
Nevarc	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
						Depth to saturated zone	0.19
Remlik	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.36	Too sandy	0.36	Droughty	0.27
19A:							
Nimmo	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
20B:							
Ocilla	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.72	Too sandy	0.72	Depth to saturated zone	0.19
20C:							
Ocilla	65	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.72	Too sandy	0.72	Depth to saturated zone	0.19
						Slope	0.01
21A:							
Pactolus	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.94	Too sandy	0.94	Droughty	0.91
						Depth to saturated zone	0.03
22A:							
Riverview	75	Somewhat limited		Somewhat limited		Very limited	
		Flooding	0.40	Flooding	0.40	Flooding	1.00
23A:							
Roanoke	95	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
24B:							
Rumford	45	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.81	Too sandy	0.81		
Kenansville	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.84	Too sandy	0.84	Droughty	0.22
Uchee	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.30	Too sandy	0.30	Droughty	0.01
24C:							
Rumford	45	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Slope	0.01
Kenansville	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.84	Too sandy	0.84	Droughty	0.22
						Slope	0.01

Table 11.—Recreational Development, Part II—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
24C:							
Uchee---------------	15	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.30	Too sandy	0.30	Droughty	0.01
						Slope	0.01
25A:							
Seabrook------------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.81	Too sandy	0.81	Droughty	0.92
26A:							
Slagle--------------	85	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.01	Too sandy	0.01		
26B:							
Slagle--------------	85	Somewhat limited		Somewhat limited		Not limited	
		Too sandy	0.01	Too sandy	0.01		
26C:							
Slagle--------------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Slope	0.01
27A:							
State---------------	95	Not limited		Not limited		Not limited	
27B:							
State---------------	85	Not limited		Not limited		Not limited	
28B:							
Tarboro-------------	95	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.79	Too sandy	0.79	Droughty	1.00
29A:							
Tomotley------------	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
30B:							
Uchee---------------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.30	Too sandy	0.30	Droughty	0.01
30C:							
Uchee---------------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.30	Too sandy	0.30	Droughty	0.01
						Slope	0.01
30D:							
Uchee---------------	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.30	Too sandy	0.30	Slope	0.63
31:							
Udorthents----------	80	Not rated		Not rated		Not rated	
32A:							
Urban land----------	50	Not rated		Not rated		Not rated	
Udorthents----------	30	Not rated		Not rated		Not rated	
33F:							
Winton--------------	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00

Table 11.—Recreational Development, Part II—Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
34A:							
Yemassee	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
W:							
Water	100	Not rated		Not rated		Not rated	

Table 12.—Building Site Development, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
1B:							
Alaga----------------	85	Not limited		Not limited		Not limited	
2A:							
Altavista------------	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
2B:							
Altavista------------	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
3A:							
Augusta--------------	85	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
4A:							
Bibb-----------------	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	Depth to saturated zone	1.00
5B:							
Bojac----------------	75	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.15		
6A:							
Buncombe-------------	80	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
7A:							
Chastain, frequently flooded------------	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
8A:							
Chastain, ponded----	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

Table 12.—Building Site Development, Part I—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
9A:							
Chewacla	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	Depth to saturated zone	1.00
10A:							
Craven	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	0.99	Shrink-swell	0.50
				Shrink-swell	0.50		
10B:							
Craven	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	0.99	Shrink-swell	0.50
				Shrink-swell	0.50		
10C:							
Craven	85	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Depth to saturated zone	0.99	Slope	1.00
		Slope	0.01			Shrink-swell	0.50
				Shrink-swell	0.50		
				Slope	0.01		
11B:							
Craven	85	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.99		
11C:							
Craven	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.01	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.01		
12A:							
Dorovan	85	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
13A:							
Emporia	95	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.82		
13B:							
Emporia	95	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.82		
13C:							
Emporia	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.01	Depth to saturated zone	0.82	Slope	1.00
				Slope	0.01		

Table 12.—Building Site Development, Part I—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
14A:							
Exum	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.01	Depth to saturated zone	1.00	Depth to saturated zone	0.01
15A:							
Munden	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
15B:							
Munden	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
16A:							
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
17A:							
Nansemond	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
17B:							
Nansemond	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
18F:							
Nevarc	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		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
Remlik	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Depth to saturated zone	0.15		
19A:							
Nimmo	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
20B:							
Ocilla	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
20C:							
Ocilla	65	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.39	Depth to saturated zone	1.00	Slope	1.00
		Slope	0.01	Slope	0.01	Depth to saturated zone	0.39

Table 12.—Building Site Development, Part I—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
21A:							
Pactolus	80	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Depth to saturated zone	0.07	Depth to saturated zone	1.00	Depth to saturated zone	0.07
22A:							
Riverview	75	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.61		
23A:							
Roanoke	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	Depth to saturated zone	1.00
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
24B:							
Rumford	45	Not limited		Not limited		Not limited	
Kenansville	35	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.15		
Uchee	15	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.61		
24C:							
Rumford	45	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.01	Slope	0.01	Slope	1.00
Kenansville	35	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.01	Depth to saturated zone	0.15	Slope	1.00
				Slope	0.01		
Uchee	15	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.01	Depth to saturated zone	0.61	Slope	1.00
				Slope	0.01		
25A:							
Seabrook	80	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.99		
26A:							
Slagle	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	0.99	Shrink-swell	0.50
				Shrink-swell	0.50		
26B:							
Slagle	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to saturated zone	0.99	Shrink-swell	0.50
				Shrink-swell	0.50		

Table 12.—Building Site Development, Part I—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
26C:							
Slagle	80	Somewhat limited		Somewhat limited		Very limited	
		Shrink-swell	0.50	Depth to saturated zone	0.99	Slope	1.00
		Slope	0.01	Shrink-swell	0.50	Shrink-swell	0.50
				Slope	0.01		
27A:							
State	95	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.15		
27B:							
State	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
				Depth to saturated zone	0.15		
28B:							
Tarboro	95	Not limited		Not limited		Not limited	
29A:							
Tomotley	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
30B:							
Uchee	80	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.61		
30C:							
Uchee	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.01	Depth to saturated zone	0.61	Slope	1.00
				Slope	0.01		
30D:							
Uchee	80	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Slope	0.63	Slope	1.00
				Depth to saturated zone	0.61		
31:							
Udorthents	80	Not rated		Not rated		Not rated	
32A:							
Urban land	50	Not rated		Not rated		Not rated	
Udorthents	30	Not rated		Not rated		Not rated	
33F:							
Winton	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Depth to saturated zone	0.99		

Table 12.—Building Site Development, Part I—Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
34A:							
Yemassee------------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
W:							
Water---------------	100	Not rated		Not rated		Not rated	

Table 12.—Building Site Development, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
1B:							
Alaga	85	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.94
2A:							
Altavista	85	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Flooding	0.40	Cutbanks cave	0.10		
		Depth to saturated zone	0.19				
2B:							
Altavista	85	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Flooding	0.40	Cutbanks cave	0.10		
		Depth to saturated zone	0.19				
3A:							
Augusta	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.75	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Flooding	0.40	Cutbanks cave	1.00		
4A:							
Bibb	95	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Cutbanks cave	1.00	Depth to saturated zone	1.00
				Flooding	0.80		
5B:							
Bojac	75	Somewhat limited		Very limited		Not limited	
		Flooding	0.20	Cutbanks cave	1.00		
				Depth to saturated zone	0.15		
6A:							
Buncombe	80	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Cutbanks cave	1.00	Droughty	0.98
				Flooding	0.60	Flooding	0.60
7A:							
Chastain, frequently flooded	90	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		

Table 12.—Building Site Development, Part II—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
8A:							
Chastain, ponded----	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
9A:							
Chewacla------------	95	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	0.94
		Depth to saturated zone	0.94	Cutbanks cave	0.10		
10A:							
Craven--------------	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Depth to saturated zone	0.99		
		Shrink-swell	0.50	Too clayey	0.50		
				Cutbanks cave	0.10		
10B:							
Craven--------------	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Depth to saturated zone	0.99		
		Shrink-swell	0.50	Too clayey	0.50		
				Cutbanks cave	0.10		
10C:							
Craven--------------	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	0.99	Slope	0.01
		Shrink-swell	0.50	Too clayey	0.50		
		Slope	0.01	Cutbanks cave	0.10		
11B:							
Craven--------------	85	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.99		
				Too clayey	0.50		
				Cutbanks cave	0.10		
11C:							
Craven--------------	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.01	Depth to saturated zone	0.99	Slope	0.01
				Too clayey	0.50		
				Cutbanks cave	0.10		
12A:							
Dorovan-------------	85	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Organic matter content	1.00	Flooding	1.00

Table 12.—Building Site Development, Part II—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
13A:							
Emporia-------------	95	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Depth to saturated zone	0.82		
				Cutbanks cave	0.10		
13B:							
Emporia-------------	95	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Depth to saturated zone	0.82		
				Cutbanks cave	0.10		
13C:							
Emporia-------------	90	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	0.82	Slope	0.01
		Slope	0.01				
				Cutbanks cave	0.10		
				Slope	0.01		
14A:							
Exum----------------	85	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.01
		Depth to saturated zone	0.01				
				Cutbanks cave	0.10		
15A:							
Munden--------------	85	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Depth to saturated zone	0.19				
				Cutbanks cave	0.10		
15B:							
Munden--------------	85	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Depth to saturated zone	0.19				
				Cutbanks cave	0.10		
16A:							
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
				Cutbanks cave	0.10		
17A:							
Nansemond-----------	85	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	1.00		
17B:							
Nansemond-----------	85	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	1.00		
18F:							
Nevarc--------------	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Shrink-swell	0.50				
				Cutbanks cave	0.10		

Table 12.—Building Site Development, Part II—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
18F:							
Remlik	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.27
				Depth to saturated zone	0.15		
19A:							
Nimmo	80	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		
20B:							
Ocilla	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	1.00		
20C:							
Ocilla	65	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.19	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Slope	0.01	Cutbanks cave	1.00	Slope	0.01
				Slope	0.01		
21A:							
Pactolus	80	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.40	Depth to saturated zone	1.00	Droughty	0.91
		Depth to saturated zone	0.03	Cutbanks cave	1.00	Depth to saturated zone	0.03
22A:							
Riverview	75	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.80	Flooding	1.00
		Low strength	1.00	Depth to saturated zone	0.61		
				Cutbanks cave	0.10		
23A:							
Roanoke	95	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Flooding	0.60	Flooding	0.60
		Low strength	1.00	Too clayey	0.12		
24B:							
Rumford	45	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
Kenansville	35	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.22
				Depth to saturated zone	0.15		
Uchee	15	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.01
				Depth to saturated zone	0.61		

Table 12.—Building Site Development, Part II—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
24C:							
Rumford	45	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.01	Cutbanks cave	1.00	Slope	0.01
				Slope	0.01		
Kenansville	35	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.01	Cutbanks cave	1.00	Droughty	0.22
				Depth to saturated zone	0.15	Slope	0.01
				Slope	0.01		
Uchee	15	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.01	Cutbanks cave	1.00	Droughty	0.01
				Depth to saturated zone	0.61	Slope	0.01
				Slope	0.01		
25A:							
Seabrook	80	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.92
				Depth to saturated zone	0.99		
26A:							
Slagle	85	Somewhat limited		Somewhat limited		Not limited	
		Low strength	0.78	Depth to saturated zone	0.99		
		Shrink-swell	0.50	Cutbanks cave	0.10		
26B:							
Slagle	85	Somewhat limited		Somewhat limited		Not limited	
		Low strength	0.78	Depth to saturated zone	0.99		
		Shrink-swell	0.50	Cutbanks cave	0.10		
26C:							
Slagle	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Low strength	0.78	Depth to saturated zone	0.99	Slope	0.01
		Shrink-swell	0.50				
		Slope	0.01	Cutbanks cave	0.10		
				Slope	0.01		
27A:							
State	95	Somewhat limited		Somewhat limited		Not limited	
		Flooding	0.20	Depth to saturated zone	0.15		
				Cutbanks cave	0.10		
27B:							
State	85	Somewhat limited		Somewhat limited		Not limited	
		Flooding	0.20	Depth to saturated zone	0.15		
				Cutbanks cave	0.10		
28B:							
Tarboro	95	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00

Table 12.—Building Site Development, Part II—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
29A:							
Tomotley------------	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Cutbanks cave	1.00		
30B:							
Uchee---------------	80	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.01
				Depth to saturated zone	0.61		
30C:							
Uchee---------------	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.01	Cutbanks cave	1.00	Droughty	0.01
				Depth to saturated zone	0.61	Slope	0.01
				Slope	0.01		
30D:							
Uchee---------------	80	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.63	Cutbanks cave	1.00	Slope	0.63
				Slope	0.63	Droughty	0.01
				Depth to saturated zone	0.61		
31:							
Udorthents----------	80	Not rated		Not rated		Not rated	
32A:							
Urban land----------	50	Not rated		Not rated		Not rated	
Udorthents----------	30	Not rated		Not rated		Not rated	
33F:							
Winton--------------	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00		
				Depth to saturated zone	0.99		
34A:							
Yemassee------------	80	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	0.10		
W:							
Water---------------	100	Not rated		Not rated		Not rated	

Table 13.—Sanitary Facilities, Part I

(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
1B:					
Alaga	85	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Filtering capacity	1.00	Slope	0.08
2A:					
Altavista	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	0.99
		Flooding	0.40	Flooding	0.40
2B:					
Altavista	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	0.99
		Flooding	0.40	Flooding	0.40
3A:					
Augusta	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50	Flooding	0.40
4A:					
Bibb	95	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
5B:					
Bojac	75	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.40	Slope	0.32
		Flooding	0.20	Flooding	0.20

Table 13.—Sanitary Facilities, Part I—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
6A:					
Buncombe	80	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Filtering capacity	1.00		
7A:					
Chastain, frequently flooded	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		
8A:					
Chastain, ponded	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
9A:					
Chewacla	95	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
10A:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00		
10B:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Slope	0.32
10C:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Slope	1.00
		Slope	0.01		
11B:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Slope	0.32

Table 13.—Sanitary Facilities, Part I—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
11C:					
Craven	85	Very limited		Very limited	
		Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Slope	1.00
		Slope	0.01		
12A:					
Dorovan	85	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
13A:					
Emporia	95	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Slow water movement	1.00		
13B:					
Emporia	95	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Slow water movement	1.00	Slope	0.32
13C:					
Emporia	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Slow water movement	1.00	Slope	1.00
		Slope	0.01		
14A:					
Exum	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	1.00		
15A:					
Munden	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Flooding	0.40	Flooding	0.40
15B:					
Munden	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Flooding	0.40	Flooding	0.40

Table 13.—Sanitary Facilities, Part I—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
16A:					
Myatt	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.68	Seepage	0.99
17A:					
Nansemond	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
17B:					
Nansemond	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
				Slope	0.32
18F:					
Nevarc	45	Very limited		Very limited	
		Slow water movement	1.00	Slope	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Slope	1.00	Seepage	0.50
Remlik	35	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.40		
19A:					
Nimmo	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50		
20B:					
Ocilla	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Slope	0.08

Table 13.—Sanitary Facilities, Part I—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
20C:					
Ocilla	65	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Slope	1.00
21A:					
Pactolus	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
		Filtering capacity	1.00	Flooding	0.40
22A:					
Riverview	75	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.99	Depth to saturated zone	0.71
23A:					
Roanoke	95	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
24B:					
Rumford	45	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
				Slope	0.08
Kenansville	35	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.40	Slope	0.08
Uchee	15	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.99	Slope	0.08
		Slow water movement	0.68		
24C:					
Rumford	45	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slope	0.01	Slope	1.00

Table 13.—Sanitary Facilities, Part I—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
24C:					
Kenansville	35	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.40	Slope	1.00
		Slope	0.01		
Uchee	15	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.99	Slope	1.00
		Slow water movement	0.68		
25A:					
Seabrook	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Depth to saturated zone	1.00
		Filtering capacity	1.00		
26A:					
Slagle	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Slow water movement	1.00	Depth to saturated zone	0.19
26B:					
Slagle	85	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Slow water movement	1.00	Slope	0.32
				Depth to saturated zone	0.19
26C:					
Slagle	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
		Slow water movement	1.00	Slope	1.00
		Slope	0.01	Depth to saturated zone	0.19
27A:					
State	95	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50	Flooding	0.20
		Depth to saturated zone	0.40		

Table 13.—Sanitary Facilities, Part I—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
27B:					
State	85	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Slow water movement	0.50	Slope	0.32
		Depth to saturated zone	0.40	Flooding	0.20
28B:					
Tarboro	95	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Slope	0.08
29A:					
Tomotley	90	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Seepage, bottom layer	1.00	Seepage	0.50
		Slow water movement	0.68	Flooding	0.40
30B:					
Uchee	80	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.99	Slope	0.08
		Slow water movement	0.68		
30C:					
Uchee	80	Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00
		Depth to saturated zone	0.99	Slope	1.00
		Slow water movement	0.68		
30D:					
Uchee	80	Very limited		Very limited	
		Seepage, bottom layer	1.00	Slope	1.00
		Depth to saturated zone	0.99	Seepage	1.00
		Slow water movement	0.68		
31:					
Udorthents	80	Not rated		Not rated	
32A:					
Urban land	50	Not rated		Not rated	
Udorthents	30	Not rated		Not rated	

Table 13.—Sanitary Facilities, Part I—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
33F:					
Winton--------------	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
		Slow water movement	1.00	Depth to saturated zone	0.04
34A:					
Yemassee------------	80	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.50	Seepage	1.00
W:					
Water---------------	100	Not rated		Not rated	

Table 13.—Sanitary Facilities, Part II

(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
1B:							
Alaga---------------	85	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Too sandy	1.00
		Too sandy	1.00			Seepage	1.00
2A:							
Altavista-----------	85	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
		Flooding	0.40	Flooding	0.40		
2B:							
Altavista-----------	85	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
		Flooding	0.40	Flooding	0.40		
3A:							
Augusta-------------	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Flooding	0.40	Depth to saturated zone	0.99
		Flooding	0.40				
4A:							
Bibb----------------	95	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		
		Seepage, bottom layer	1.00				
5B:							
Bojac---------------	75	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	0.50
		Seepage, bottom layer	1.00	Seepage	1.00		
		Flooding	0.20	Flooding	0.20		
6A:							
Buncombe------------	80	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Too sandy	0.50
		Too sandy	0.50				

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
7A:							
Chastain, frequently flooded	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	Hard to compact	1.00
		Too clayey	0.50			Too clayey	0.50
8A:							
Chastain, ponded	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	Hard to compact	1.00
9A:							
Chewacla	95	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		
10A:							
Craven	85	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			Hard to compact	1.00
						Depth to saturated zone	0.47
10B:							
Craven	85	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			Hard to compact	1.00
						Depth to saturated zone	0.47
10C:							
Craven	85	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	Slope	0.01	Hard to compact	1.00
		Slope	0.01			Depth to saturated zone	0.47
11B:							
Craven	85	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.47
11C:							
Craven	85	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.47
		Slope	0.01	Slope	0.01	Slope	0.01
12A:							
Dorovan	85	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	Organic matter content	1.00

Table 13.—Sanitary Facilities, Part II—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
13A:							
Emporia	95	Somewhat limited		Not limited		Not limited	
		Depth to saturated zone	0.09				
13B:							
Emporia	95	Somewhat limited		Not limited		Not limited	
		Depth to saturated zone	0.09				
13C:							
Emporia	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.09	Slope	0.01	Slope	0.01
		Slope	0.01				
14A:							
Exum	85	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.56
		Too clayey	0.50			Too clayey	0.50
15A:							
Munden	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Depth to saturated zone	0.86
		Flooding	0.40	Flooding	0.40		
15B:							
Munden	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Depth to saturated zone	0.86
		Flooding	0.40	Flooding	0.40		
16A:							
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
17A:							
Nansemond	85	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
17B:							
Nansemond	85	Very limited		Very limited		Somewhat limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50

Table 13.—Sanitary Facilities, Part II—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
18F:							
Nevarc	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
		Too clayey	0.50			Too clayey	0.50
Remlik	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
		Too sandy	0.50			Too sandy	0.50
19A:							
Nimmo	80	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	1.00	Seepage	1.00	Too sandy	1.00
		Seepage, bottom layer	1.00			Seepage	1.00
20B:							
Ocilla	90	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Depth to saturated zone	0.86
		Too sandy	0.50			Too sandy	0.50
20C:							
Ocilla	65	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Depth to saturated zone	0.86
		Too sandy	0.50	Slope	0.01	Too sandy	0.50
21A:							
Pactolus	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Depth to saturated zone	0.68
		Too sandy	0.50	Flooding	0.40	Too sandy	0.50
22A:							
Riverview	75	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	Too clayey	0.50
		Seepage, bottom layer	1.00				
23A:							
Roanoke	95	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

Table 13.—Sanitary Facilities, Part II—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
24B:							
Rumford	45	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
Kenansville	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Too sandy	0.50
		Too sandy	0.50				
Uchee	15	Very limited		Very limited		Not limited	
		Seepage, bottom layer	1.00	Seepage	1.00		
24C:							
Rumford	45	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	0.50
		Slope	0.01	Slope	0.01	Slope	0.01
Kenansville	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Too sandy	0.50
		Too sandy	0.50	Slope	0.01	Slope	0.01
Uchee	15	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	0.01
		Slope	0.01	Slope	0.01		
25A:							
Seabrook	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too sandy	1.00
		Seepage, bottom layer	1.00	Seepage	1.00	Seepage	1.00
		Too sandy	1.00			Depth to saturated zone	0.24
26A:							
Slagle	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.19	Depth to saturated zone	0.47
26B:							
Slagle	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.19	Depth to saturated zone	0.47
26C:							
Slagle	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.19	Depth to saturated zone	0.47
		Slope	0.01	Slope	0.01	Slope	0.01

Table 13.—Sanitary Facilities, Part II—Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
27A:							
State	95	Very limited		Very limited		Not limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Seepage, bottom layer	1.00	Flooding	0.20		
		Flooding	0.20				
27B:							
State	85	Very limited		Very limited		Not limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
		Seepage, bottom layer	1.00	Flooding	0.20		
		Flooding	0.20				
28B:							
Tarboro	95	Very limited		Very limited		Very limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Too sandy	1.00
		Too sandy	1.00			Seepage	1.00
29A:							
Tomotley	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
		Seepage, bottom layer	1.00	Flooding	0.40		
		Flooding	0.40				
30B:							
Uchee	80	Very limited		Very limited		Not limited	
		Seepage, bottom layer	1.00	Seepage	1.00		
30C:							
Uchee	80	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	0.01
		Slope	0.01	Slope	0.01		
30D:							
Uchee	80	Very limited		Very limited		Somewhat limited	
		Seepage, bottom layer	1.00	Seepage	1.00	Slope	0.63
		Slope	0.63	Slope	0.63		
31:							
Udorthents	80	Not rated		Not rated		Not rated	
32A:							
Urban land	50	Not rated		Not rated		Not rated	
Udorthents	30	Not rated		Not rated		Not rated	
33F:							
Winton	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.68	Depth to saturated zone	0.04	Depth to saturated zone	0.24

Table 13.—Sanitary Facilities, Part II—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
34A:							
Yemassee------------	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
W:							
Water---------------	100	Not rated		Not rated		Not rated	

Table 14.—Construction Materials, Part I

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
1B:					
Alaga	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.02
		Thickest layer	0.00	Bottom layer	0.36
2A:					
Altavista	85	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
2B:					
Altavista	85	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
3A:					
Augusta	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.38
4A:					
Bibb	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.04
		Thickest layer	0.00	Bottom layer	0.08
5B:					
Bojac	75	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.04
		Thickest layer	0.00	Bottom layer	0.68
6A:					
Buncombe	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.51
7A:					
Chastain, frequently flooded	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
8A:					
Chastain, ponded	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
9A:					
Chewacla	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
10A:					
Craven--------------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
10B:					
Craven--------------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
10C:					
Craven--------------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
11B:					
Craven--------------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
11C:					
Craven--------------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
12A:					
Dorovan-------------	85	Not rated		Not rated	
13A:					
Emporia-------------	95	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.02
13B:					
Emporia-------------	95	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.02
13C:					
Emporia-------------	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.01
		Thickest layer	0.00	Thickest layer	0.02
14A:					
Exum----------------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
15A:					
Munden--------------	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04
15B:					
Munden--------------	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.04

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
16A:					
Myatt	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
17A:					
Nansemond	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
17B:					
Nansemond	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
18F:					
Nevarc	45	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Remlik	35	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.04
		Thickest layer	0.00	Thickest layer	0.07
19A:					
Nimmo	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.85
20B:					
Ocilla	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.10
20C:					
Ocilla	65	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.10
21A:					
Pactolus	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.07
		Thickest layer	0.00	Bottom layer	0.10
22A:					
Riverview	75	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
23A:					
Roanoke	95	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
24B:					
Rumford	45	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.37

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
24B:					
Kenansville---------	35	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.11
Uchee---------------	15	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.07
24C:					
Rumford-------------	45	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.37
Kenansville---------	35	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.11
Uchee---------------	15	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.07
25A:					
Seabrook------------	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.07
		Thickest layer	0.00	Bottom layer	0.13
26A:					
Slagle--------------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
26B:					
Slagle--------------	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
26C:					
Slagle--------------	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
27A:					
State---------------	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04
27B:					
State---------------	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04
28B:					
Tarboro-------------	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.10
		Thickest layer	0.00	Bottom layer	0.69
29A:					
Tomotley------------	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.11

Table 14.—Construction Materials, Part I—Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
30B:					
Uchee	80	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.07
30C:					
Uchee	80	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.07
30D:					
Uchee	80	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.07
31:					
Udorthents	80	Not rated		Not rated	
32A:					
Urban land	50	Not rated		Not rated	
Udorthents	30	Not rated		Not rated	
33F:					
Winton	80	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.07
34A:					
Yemassee	80	Poor		Poor	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.00
W:					
Water	100	Not rated		Not rated	

Table 14.—Construction Materials, Part II

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
1B:							
Alaga---------------	85	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.45
		Organic matter content low	0.02			Too acid	0.76
		Droughty	0.27				
2A:							
Altavista-----------	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.53	Wetness depth	0.53
		Too acid	0.50				
2B:							
Altavista-----------	85	Fair		Fair		Fair	
		Organic matter content low	0.02	Wetness depth	0.53	Wetness depth	0.53
		Too acid	0.50				
3A:							
Augusta-------------	85	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.14	Wetness depth	0.14
		Organic matter content low	0.12			Too acid	0.68
		Too acid	0.16				
4A:							
Bibb----------------	95	Fair		Poor		Poor	
		Too acid	0.16	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.88			Too acid	0.68
5B:							
Bojac---------------	75	Poor		Good		Fair	
		Wind erosion	0.00			Too acid	0.98
		Organic matter content low	0.12				
		Too acid	0.54				
6A:							
Buncombe------------	80	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.02
		Too sandy	0.02			Too acid	0.68
		Droughty	0.09			Hard to reclaim (rock fragments)	0.92
7A:							
Chastain, frequently flooded------------	90	Fair		Poor		Poor	
		Too clayey	0.08	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.16	Low strength	0.00	Too clayey	0.08
				Shrink-swell	0.87	Too acid	0.68

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
8A:							
Chastain, ponded----	90	Fair		Poor		Poor	
		Too clayey	0.08	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.16	Low strength	0.00	Too clayey	0.08
				Shrink-swell	0.87	Too acid	0.68
9A:							
Chewacla------------	95	Fair		Poor		Fair	
		Too acid	0.16	Low strength	0.00	Wetness depth	0.04
				Wetness depth	0.04	Too acid	0.68
10A:							
Craven--------------	85	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.12	Wetness depth	0.89	Too acid	0.59
		Organic matter content low	0.12	Shrink-swell	0.91	Wetness depth	0.89
10B:							
Craven--------------	85	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.12	Wetness depth	0.89	Too acid	0.59
		Organic matter content low	0.12	Shrink-swell	0.91	Wetness depth	0.89
10C:							
Craven--------------	85	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.12	Wetness depth	0.89	Too acid	0.59
		Organic matter content low	0.12	Shrink-swell	0.91	Wetness depth	0.89
11B:							
Craven--------------	85	Poor		Fair		Poor	
		Too clayey	0.00	Wetness depth	0.89	Too clayey	0.00
		Organic matter content low	0.12			Too acid	0.59
						Wetness depth	0.89
		Too acid	0.50				
11C:							
Craven--------------	85	Poor		Fair		Poor	
		Too clayey	0.00	Wetness depth	0.89	Too clayey	0.00
		Organic matter content low	0.12			Too acid	0.59
						Wetness depth	0.89
		Too acid	0.50				
12A:							
Dorovan-------------	85	Not rated		Not rated		Not rated	
13A:							
Emporia-------------	95	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.98
						Too sandy	0.98
		Too acid	0.54				
		Too sandy	0.98				

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
13B:							
Emporia-------------	95	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54			Too sandy	0.98
		Too sandy	0.98				
13C:							
Emporia-------------	90	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54			Too sandy	0.98
		Too sandy	0.98				
14A:							
Exum----------------	85	Fair		Poor		Fair	
		Too acid	0.12	Low strength	0.00	Too acid	0.59
		Organic matter content low	0.12	Wetness depth	0.84	Wetness depth	0.84
		Water erosion	0.90				
15A:							
Munden--------------	85	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.53	Wetness depth	0.53
		Organic matter content low	0.12			Too acid	0.59
		Too acid	0.50				
15B:							
Munden--------------	85	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.53	Wetness depth	0.53
		Organic matter content low	0.12			Too acid	0.59
		Too acid	0.50				
16A:							
Myatt---------------	90	Fair		Poor		Poor	
		Too acid	0.16	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.50			Too acid	0.68
17A:							
Nansemond-----------	85	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.53	Wetness depth	0.53
		Too acid	0.12			Too acid	0.59
		Organic matter content low	0.12				
17B:							
Nansemond-----------	85	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.53	Wetness depth	0.53
		Too acid	0.12			Too acid	0.59
		Organic matter content low	0.12				
18F:							
Nevarc--------------	45	Fair		Poor		Poor	
		Too clayey	0.08	Slope	0.00	Slope	0.00
		Organic matter content low	0.12	Low strength	0.00	Too clayey	0.05
				Wetness depth	0.53	Wetness depth	0.53
		Too acid	0.20				

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
18F:							
Remlik	35	Poor		Poor		Poor	
		Wind erosion	0.00	Slope	0.00	Slope	0.00
		Too sandy	0.38			Too sandy	0.38
		Too acid	0.46			Too acid	0.95
19A:							
Nimmo	80	Fair		Poor		Poor	
		Organic matter content low	0.12	Wetness depth	0.00	Wetness depth	0.00
						Too acid	0.59
		Too acid	0.50				
20B:							
Ocilla	90	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.53	Too sandy	0.06
		Too sandy	0.06			Wetness depth	0.53
		Too acid	0.16			Too acid	0.68
20C:							
Ocilla	65	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.53	Too sandy	0.06
		Too sandy	0.06			Wetness depth	0.53
		Too acid	0.16			Too acid	0.68
21A:							
Pactolus	80	Poor		Fair		Fair	
		Wind erosion	0.00	Wetness depth	0.76	Too sandy	0.01
		Too sandy	0.01			Too acid	0.68
		Organic matter content low	0.12			Wetness depth	0.76
22A:							
Riverview	75	Fair		Good		Fair	
		Too acid	0.12			Too acid	0.59
		Organic matter content low	0.88				
23A:							
Roanoke	95	Poor		Poor		Poor	
		Too clayey	0.00	Wetness depth	0.00	Wetness depth	0.00
		Too acid	0.08	Low strength	0.00	Too clayey	0.00
		Organic matter content low	0.12	Shrink-swell	0.89	Too acid	0.50
24B:							
Rumford	45	Poor		Good		Good	
		Wind erosion	0.00				
		Organic matter content low	0.12				
		Too acid	0.99				
Kenansville	35	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00				
		Organic matter content low	0.02				
Uchee	15	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.47
		Too acid	0.20			Too acid	0.95
		Too sandy	0.47				

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
24C:							
Rumford	45	Poor		Good		Good	
		Wind erosion	0.00				
		Organic matter content low	0.12				
		Too acid	0.99				
Kenansville	35	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00				
		Organic matter content low	0.02				
Uchee	15	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.47
		Too acid	0.20			Too acid	0.95
		Too sandy	0.47				
25A:							
Seabrook	80	Poor		Fair		Poor	
		Wind erosion	0.00	Wetness depth	0.98	Too sandy	0.00
		Too sandy	0.00			Wetness depth	0.98
		Droughty	0.01				
26A:							
Slagle	85	Fair		Fair		Fair	
		Organic matter content low	0.12	Low strength	0.22	Wetness depth	0.89
				Wetness depth	0.89	Too acid	0.95
		Too acid	0.46				
26B:							
Slagle	85	Fair		Fair		Fair	
		Organic matter content low	0.12	Low strength	0.22	Wetness depth	0.89
				Wetness depth	0.89	Too acid	0.95
		Too acid	0.46				
26C:							
Slagle	80	Fair		Fair		Fair	
		Organic matter content low	0.12	Low strength	0.22	Wetness depth	0.89
				Wetness depth	0.89	Too acid	0.95
		Too acid	0.46				
27A:							
State	95	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54				
27B:							
State	85	Fair		Good		Fair	
		Organic matter content low	0.12			Too acid	0.98
		Too acid	0.54				
28B:							
Tarboro	95	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Organic matter content low	0.02				

Table 14.—Construction Materials, Part II—Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
29A:							
Tomotley	90	Fair		Poor		Poor	
		Too acid	0.16	Wetness depth	0.00	Wetness depth	0.00
		Organic matter content low	0.88			Too acid	0.68
30B:							
Uchee	80	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.47
		Too acid	0.20			Too acid	0.95
		Too sandy	0.47				
30C:							
Uchee	80	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.47
		Too acid	0.20			Too acid	0.95
		Too sandy	0.47				
30D:							
Uchee	80	Poor		Good		Fair	
		Wind erosion	0.00			Slope	0.37
		Too acid	0.20			Too sandy	0.47
		Too sandy	0.47			Too acid	0.95
31:							
Udorthents	80	Not rated		Not rated		Not rated	
32A:							
Urban land	50	Not rated		Not rated		Not rated	
Udorthents	30	Not rated		Not rated		Not rated	
33F:							
Winton	80	Fair		Poor		Poor	
		Organic matter content low	0.12	Slope	0.00	Slope	0.00
				Wetness depth	0.98	Too acid	0.95
		Too acid	0.46			Wetness depth	0.98
34A:							
Yemassee	80	Fair		Poor		Poor	
		Too acid	0.16	Wetness depth	0.00	Wetness depth	0.00
						Too acid	0.68
W:							
Water	100	Not rated		Not rated		Not rated	

Table 15.—Water Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table)

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1B:							
Alaga	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.36	Depth to water	1.00
2A:							
Altavista	85	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	0.10
				Seepage	0.01	Depth to saturated zone	0.01
2B:							
Altavista	85	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	0.10
		Slope	0.08	Seepage	0.01	Depth to saturated zone	0.01
3A:							
Augusta	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.38		
4A:							
Bibb	95	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.08		
5B:							
Bojac	75	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.68	Depth to water	1.00
		Slope	0.08				
6A:							
Buncombe	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.51	Depth to water	1.00
7A:							
Chastain, frequently flooded	90	Not limited		Very limited		Very limited	
				Depth to saturated zone	1.00	Slow refill	1.00
				Hard to pack	0.22	Cutbanks cave	0.10
8A:							
Chastain, ponded	90	Not limited		Very limited		Somewhat limited	
				Ponding	1.00	Slow refill	0.95
				Depth to saturated zone	1.00	Cutbanks cave	0.10
				Hard to pack	0.22		

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
9A:							
Chewacla------------	95	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
				Piping	0.25	Cutbanks cave	0.10
10A:							
Craven--------------	85	Not limited		Somewhat limited		Very limited	
				Depth to saturated zone	0.86	Slow refill	1.00
				Hard to pack	0.48	Cutbanks cave	0.10
						Depth to saturated zone	0.06
10B:							
Craven--------------	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.08	Depth to saturated zone	0.86	Slow refill	1.00
				Hard to pack	0.48	Cutbanks cave	0.10
						Depth to saturated zone	0.06
10C:							
Craven--------------	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.86	Slow refill	1.00
				Hard to pack	0.48	Cutbanks cave	0.10
						Depth to saturated zone	0.06
11B:							
Craven--------------	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.08	Depth to saturated zone	0.86	Slow refill	1.00
				Seepage	0.03	Cutbanks cave	0.10
				Piping	0.01	Depth to saturated zone	0.06
11C:							
Craven--------------	85	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.86	Slow refill	1.00
				Seepage	0.03	Cutbanks cave	0.10
				Piping	0.01	Depth to saturated zone	0.06
12A:							
Dorovan-------------	85	Very limited		Not rated		Somewhat limited	
		Seepage	1.00			Cutbanks cave	0.10
13A:							
Emporia-------------	95	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.05	Depth to saturated zone	0.09	Depth to water	1.00
				Seepage	0.02		
13B:							
Emporia-------------	95	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.08	Depth to saturated zone	0.09	Depth to water	1.00
		Seepage	0.05	Seepage	0.02		

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
13C:							
Emporia	90	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.09	Depth to water	1.00
		Seepage	0.05	Seepage	0.02		
14A:							
Exum	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.05	Depth to saturated zone	0.90	Slow refill	0.95
				Piping	0.17	Cutbanks cave	0.10
						Depth to saturated zone	0.04
15A:							
Munden	85	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	0.10
				Seepage	0.04	Depth to saturated zone	0.01
15B:							
Munden	85	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	0.10
		Slope	0.08	Seepage	0.04	Depth to saturated zone	0.01
16A:							
Myatt	90	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.02		
17A:							
Nansemond	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
				Seepage	0.07	Depth to saturated zone	0.01
17B:							
Nansemond	85	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
		Slope	0.08	Seepage	0.07	Depth to saturated zone	0.01
18F:							
Nevarc	45	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.99	Depth to water	1.00
		Seepage	0.70				
Remlik	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.07	Depth to water	1.00
		Slope	1.00				
19A:							
Nimmo	80	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.85		

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
20B:							
Ocilla	90	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
				Seepage	0.10	Depth to saturated zone	0.01
20C:							
Ocilla	65	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	1.00
		Slope	1.00	Seepage	0.10	Depth to saturated zone	0.01
21A:							
Pactolus	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.95	Cutbanks cave	1.00
				Seepage	0.10	Depth to saturated zone	0.02
22A:							
Riverview	75	Very limited		Somewhat limited		Somewhat limited	
		Seepage	1.00	Seepage	0.02	Depth to saturated zone	0.81
						Cutbanks cave	0.10
23A:							
Roanoke	95	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
						Cutbanks cave	0.10
24B:							
Rumford	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.37	Depth to water	1.00
Kenansville	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.11	Depth to water	1.00
Uchee	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.07	Depth to water	1.00
24C:							
Rumford	45	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.37	Depth to water	1.00
		Slope	1.00				
Kenansville	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.11	Depth to water	1.00
		Slope	1.00				
Uchee	15	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.07	Depth to water	1.00
		Slope	1.00				
25A:							
Seabrook	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.68	Cutbanks cave	1.00
				Seepage	0.13	Depth to saturated zone	0.14

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
26A:							
Slagle	85	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.95	Depth to saturated zone	0.86	Depth to water	1.00
26B:							
Slagle	85	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.95	Depth to saturated zone	0.86	Depth to water	1.00
		Slope	0.08				
26C:							
Slagle	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.86	Depth to water	1.00
		Seepage	0.95				
27A:							
State	95	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.04	Depth to water	1.00
27B:							
State	85	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.04	Depth to water	1.00
		Slope	0.08				
28B:							
Tarboro	95	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.69	Depth to water	1.00
29A:							
Tomotley	90	Very limited		Very limited		Very limited	
		Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
				Seepage	0.11		
30B:							
Uchee	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.07	Depth to water	1.00
30C:							
Uchee	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.07	Depth to water	1.00
		Slope	1.00				
30D:							
Uchee	80	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.07	Depth to water	1.00
		Slope	1.00				
31:							
Udorthents	80	Not rated		Not rated		Not rated	
32A:							
Urban land	50	Not rated		Not rated		Not rated	
Udorthents	30	Not rated		Not rated		Not rated	
33F:							
Winton	80	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Depth to saturated zone	0.68	Depth to water	1.00
		Seepage	0.57				
				Seepage	0.07		

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
34A:							
Yemassee------------	80	Somewhat limited		Very limited		Somewhat limited	
		Seepage	0.70	Depth to saturated zone	1.00	Cutbanks cave	0.10
				Seepage	0.01		
W:							
Water---------------	100	Not rated		Not rated		Not rated	

Table 16.—Engineering Properties

(Absence of an entry indicates that data were not estimated)

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	
1B:												
Alaga-----------	0-4	Loamy sand, loamy fine sand, fine sand, sand	SM	A-2	0	0	100	100	75-85	15-30	9-18	NP-3
	4-35	Loamy fine sand, loamy sand, fine sand, sand	SM	A-2, A-4	0	0	100	100	90-100	30-45	9-18	NP-3
	35-84	Sand, fine sand, loamy sand, loamy fine sand	SP-SM, SM	A-3, A-2	0	0	100	100	75-90	10-25	9-18	NP-3
2A:												
Altavista-------	0-11	Fine sandy loam, sandy loam, loam, silt loam, very fine sandy loam	SC, SC-SM, ML	A-2-4, A-6, A-4	0	0	98-100	95-100	55-100	30-90	21-40	6-16
	11-38	Loam, clay loam, sandy clay loam	CL, SC, SC-SM	A-6, A-7-6	0	0	98-100	95-100	75-100	35-80	27-44	12-25
	38-72	Sandy clay loam, sandy loam, loamy sand, sand	CL-ML, CL, SC, SC-SM	A-4, A-6, A-2-4	0	0	90-100	80-100	40-90	4-55	0-44	NP-25
2B:												
Altavista-------	0-11	Fine sandy loam, sandy loam, loam, silt loam, very fine sandy loam	SC, SC-SM, ML	A-4, A-6, A-2-4	0	0	98-100	95-100	55-100	30-90	21-40	6-16
	11-38	Loam, clay loam, sandy clay loam	SC-SM, SC, CL	A-6, A-7-6	0	0	98-100	95-100	75-100	35-80	27-44	12-25
	38-72	Sandy clay loam, sandy loam, loamy sand, sand	CL-ML, SC, SC-SM, CL	A-6, A-4, A-2-4	0	0	90-100	80-100	40-90	4-55	0-44	NP-25
3A:												
Augusta---------	0-11	Sandy loam, fine sandy loam, loam	SC, SC-SM	A-4, A-2-4	0	0	95-100	85-100	50-95	25-75	17-35	2-13
	11-46	Sandy clay loam, clay loam, loam	SC, CL	A-6, A-7-6	0	0	95-100	85-100	70-100	30-80	29-44	13-25
	46-84	Sand, sandy loam, loamy sand, loamy fine sand, gravelly sand	SC-SM, SP-SM, SC	A-1, A-2-4, A-4	0	0	90-100	70-100	35-85	4-45	0-31	NP-13

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	
4A:												
Bibb------------	0-8	Sandy loam, fine sandy loam, silt loam, loam, loamy sand, sand	SC-SM, SM, SC	A-6, A-2, A-4	0	0	90-100	85-100	60-90	25-50	0-37	NP-13
	8-50	Sandy loam, fine sandy loam, loam, silt loam, stratified sandy loam to silt loam	SC, SC-SM, SM	A-6, A-4, A-2	0	0	90-100	85-100	60-85	25-45	17-31	2-12
	50-84	Loamy sand, gravelly sand, loamy fine sand, sandy loam, fine sandy loam, loam, silt loam, stratified sandy loam to silt loam	SC, SM	A-6, A-1, A-2	0	0-8	85-100	55-100	45-95	15-45	0-35	NP-12
5B:												
Bojac-----------	0-13	Loamy sand, loamy fine sand, sandy loam, fine sandy loam, loam, gravelly loamy sand	SM, SC-SM, SP-SM	A-2, A-1	0	0	80-100	50-100	35-85	10-25	0-22	NP-4
	13-48	Sandy loam, fine sandy loam, loam, sandy clay loam, gravelly sandy loam	SC, SC-SM	A-1, A-4, A-6	0	0	80-100	50-100	35-85	20-45	21-33	6-15
	48-66	Sand, loamy sand, loamy fine sand, gravelly sand, very gravelly sand	SC-SM, SW, SP-SM	A-1, A-2	0	0	75-100	35-100	25-80	2-15	0-21	NP-4
6A:												
Buncombe--------	0-7	Loamy sand, sand, loamy fine sand	SC-SM, SP-SM	A-2, A-4, A-1	0	0	100	100	50-85	5-45	0-26	NP-7
	7-58	Loamy sand, loamy fine sand, sand	SP-SM, SC-SM	A-4, A-2, A-1	0	0	100	100	50-85	5-45	0-25	NP-7
	58-82	Gravelly sand, sand, loam	SP, SP-SM, CL	A-4, A-1	0	0-5	70-100	50-100	25-95	2-75	0-27	NP-10
7A:												
Chastain, frequently flooded--------	0-3	Loam, silt loam	MH, CL	A-6, A-4, A-7	0	0	100	100	85-100	60-90	28-51	10-19
	3-49	Clay loam, silty clay loam, clay, silty clay	CL, CH	A-7	0	0	100	100	90-100	70-95	45-72	25-43
	49-84	Clay loam, sandy clay loam, silty clay loam, clay, silty clay	ML, CH, CL, MH, SC	A-6, A-7, A-2	0	0	100	100	80-100	35-95	36-72	17-43

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	
8A:												
Chastain, ponded	0-3	Loam, silt loam	MH, CL	A-4, A-7, A-6	0	0	100	100	85-100	60-90	28-51	10-19
	3-49	Clay loam, silty clay loam, clay, silty clay	CL, CH	A-7	0	0	100	100	90-100	70-95	45-72	25-43
	49-84	Clay loam, sandy clay loam, silty clay loam, clay, silty clay	MH, CH, SC, CL, ML	A-2, A-7, A-6	0	0	100	100	80-100	35-95	36-72	17-43
9A:												
Chewacla--------	0-6	Loam, fine sandy loam, sandy loam, silt loam, clay loam	CL, CH, SC-SM	A-2, A-6, A-7	0	0	95-100	92-100	55-100	30-90	22-52	6-24
	6-32	Loam, silty clay loam, clay loam, silt loam, sandy loam, fine sandy loam, sandy clay loam	CL, SC	A-6, A-7, A-2	0	0	95-100	92-100	55-100	30-95	28-47	12-24
	32-53	Silty clay loam, loam, clay loam, silt loam, sandy loam, sandy clay loam	SC, CL	A-7, A-2, A-6	0	0	95-100	92-100	55-100	30-95	28-47	12-24
	53-84	Silt loam, loam, loamy sand, sandy loam, loamy fine sand	SM, CL	A-6, A-7, A-1	0	0	95-100	92-100	50-100	15-95	17-41	2-19
10A:												
Craven----------	0-7	Fine sandy loam, loam, silt loam	CL, SC, SM	A-2, A-4, A-7	0	0	100	95-100	80-100	30-55	19-41	3-19
	7-55	Clay, silty clay, silty clay loam, clay loam	CH, CL	A-7	0	0	100	95-100	75-100	65-95	43-67	25-44
	55-72	Clay loam, sandy loam, loamy sand, loam, sandy clay loam	CL, SM	A-4, A-6, A-7	0	0	100	95-100	60-95	45-80	16-44	2-25
10B:												
Craven----------	0-7	Fine sandy loam, loam, silt loam	CL, SC, SM	A-2, A-4, A-7	0	0	100	95-100	80-100	30-55	19-41	3-19
	7-55	Clay, silty clay, silty clay loam, clay loam	CH, CL	A-7	0	0	100	95-100	75-100	65-95	43-67	25-44
	55-72	Clay loam, sandy loam, loamy sand, loam, sandy clay loam	CL, SM	A-4, A-6, A-7	0	0	100	95-100	60-95	45-80	16-44	2-25

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	
10C:												
Craven----------	0-7	Fine sandy loam, loam, silt loam	CL, SC, SM	A-2, A-4, A-7	0	0	100	95-100	80-100	30-55	19-41	3-19
	7-55	Clay, silty clay, silty clay loam, clay loam	CH, CL	A-7	0	0	100	95-100	75-100	65-95	43-67	25-44
	55-72	Clay loam, sandy loam, loamy sand, loam, sandy clay loam	CL, SM	A-4, A-6, A-7	0	0	100	95-100	60-95	45-80	16-44	2-25
11B:												
Craven, severely eroded---------	0-5	Clay loam	CH, CL	A-6, A-7	0	0	100	95-100	80-95	60-70	38-51	19-29
	5-24	Clay, silty clay, silty clay loam, clay loam	CH, CL	A-7	0	0	100	95-100	75-100	65-95	43-67	25-44
	24-60	Sandy loam, clay loam, sandy clay loam, loam, loamy sand	CL, SC, SM	A-1, A-4, A-7	0	0	100	95-100	50-95	20-55	16-44	2-25
11C:												
Craven, severely eroded---------	0-5	Clay loam	CH, CL	A-7, A-6	0	0	100	95-100	80-95	60-70	38-51	19-29
	5-24	Clay, silty clay, silty clay loam, clay loam	CH, CL	A-7	0	0	100	95-100	70-100	60-90	43-67	25-44
	24-60	Sandy loam, clay loam, sandy clay loam, loam, loamy sand	CL, SC, SM	A-4, A-1, A-7	0	0	100	95-100	50-95	20-55	16-44	2-25
12A:												
Dorovan---------	0-17	Muck, mucky peat	PT	A-8	0	0	---	---	---	---	---	---
	17-65	Muck	PT	A-8	0	0	---	---	---	---	---	---
	65-80	Sandy loam, sand, loamy sand, clay	CL-ML, SM	A-2, A-4	0	0	100	100	70-100	30-70	15-20	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	
13A:												
Emporia---------	0-17	Fine sandy loam, sandy loam, loamy sand, loam, loamy fine sand	SC, SM	A-2, A-6, A-4	0	0-1	90-100	75-100	65-100	25-45	0-25	NP-15
	17-33	Clay loam, sandy clay loam, sandy loam, loam, gravelly sandy clay loam	CL, SC	A-2, A-6, A-7	0	0-3	80-100	50-100	40-100	30-80	20-50	8-30
	33-40	Sandy clay loam, clay loam, sandy clay, clay, gravelly sandy clay loam	CH, CL, SC	A-7, A-6, A-2	0	0-3	80-100	50-100	40-100	20-65	25-55	8-30
	40-72	Fine sandy loam, clay loam, sandy clay loam, sandy loam, gravelly sandy loam, clay	SM, CL, SC	A-6, A-1	0	0-3	80-100	50-100	45-100	15-70	0-40	NP-25
13B:												
Emporia---------	0-17	Fine sandy loam, sandy loam, loamy sand, loam, loamy fine sand	SC, SM	A-6, A-4, A-2	0	0-1	90-100	75-100	65-100	25-45	0-25	NP-15
	17-33	Clay loam, sandy clay loam, sandy loam, loam, gravelly sandy clay loam	CL, SC	A-2, A-6, A-7	0	0-3	80-100	50-100	40-100	30-80	20-50	8-30
	33-40	Sandy clay loam, clay loam, sandy clay, clay, gravelly sandy clay loam	CH, SC, CL	A-2, A-6, A-7	0	0-3	80-100	50-100	40-100	20-65	25-55	8-30
	40-72	Fine sandy loam, clay loam, sandy clay loam, sandy loam, gravelly sandy loam, clay	SM, SC, CL	A-6, A-1	0	0-3	80-100	50-100	45-100	15-70	0-40	NP-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	
13C:												
Emporia---------	0-17	Fine sandy loam, sandy loam, loamy sand, loam, loamy fine sand	SM, SC	A-2, A-4, A-6	0	0-1	90-100	75-100	65-100	25-45	0-25	NP-15
	17-33	Clay loam, sandy clay loam, sandy loam, loam, gravelly sandy clay loam	SC, CL	A-2, A-6, A-7	0	0-3	80-100	50-100	40-100	30-80	20-50	8-30
	33-40	Sandy clay loam, clay loam, sandy clay, clay, gravelly sandy clay loam	CL, CH, SC	A-6, A-7, A-2	0	0-3	80-100	50-100	40-100	20-65	25-55	8-30
	40-72	Fine sandy loam, clay loam, sandy clay loam, sandy loam, gravelly sandy loam, clay	CL, SC, SM	A-1, A-6	0	0-3	80-100	50-100	45-100	15-70	0-40	NP-25
14A:												
Exum------------	0-11	Silt loam, loam, very fine sandy loam	CL, ML, CL-ML	A-6, A-4	0	0	100	100	85-100	50-90	18-33	3-12
	11-57	Clay loam, silty clay loam, loam, silt loam	CL	A-7-6, A-6	0	0	100	100	85-100	60-95	27-44	12-25
	57-70	Clay loam, silty clay loam, loam, silt loam, silty clay, clay	CL	A-7-6, A-6	0	0	100	100	85-100	60-95	27-57	12-36
15A:												
Munden----------	0-17	Loamy sand, loamy fine sand, sandy loam, fine sandy loam, loam	CL-ML, SM	A-1, A-2, A-4	0	0	100	90-100	45-95	15-75	15-24	NP-6
	17-36	Sandy loam, loam, fine sandy loam	SC-SM, CL	A-6, A-4, A-2	0	0	100	90-100	60-95	30-75	20-31	4-12
	36-65	Sandy loam, fine sandy loam, loamy sand, sand	SC-SM, CL-ML, SP-SM	A-2, A-4, A-1	0	0	100	90-100	50-85	5-55	15-25	NP-7
15B:												
Munden----------	0-17	Loamy sand, loamy fine sand, sandy loam, fine sandy loam, loam	SM, CL-ML	A-4, A-2, A-1	0	0	100	90-100	45-95	15-75	15-24	NP-6
	17-36	Sandy loam, loam, fine sandy loam	SC-SM, CL	A-6, A-4, A-2	0	0	100	90-100	60-95	30-75	20-31	4-12
	36-65	Sandy loam, fine sandy loam, loamy sand, sand	SC-SM, CL-ML, SP-SM	A-4, A-2, A-1	0	0	100	90-100	50-85	5-55	15-25	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	
16A:												
Myatt-----------	0-12	Loam, sandy loam, fine sandy loam, silt loam, loamy sand	CL, CL-ML	A-6, A-4	0	0	97-100	95-100	50-100	15-90	17-43	2-17
	12-52	Sandy clay loam, sandy loam, fine sandy loam, loam, clay loam	SC, CL	A-6	0	0	97-100	95-100	55-100	30-80	27-45	12-25
	52-80	Sandy loam, sandy clay loam, fine sandy loam, clay loam, gravelly sandy loam, stratified sand to clay	CL, CL-ML, SC, SC-SM	A-7-6, A-2-4, A-6, A-4	0	0	75-95	65-92	30-90	3-85	0-53	NP-32
17A:												
Nansemond-------	0-10	Loamy fine sand, loamy sand, sandy loam, fine sandy loam	SC-SM, SM	A-2-4	0	0	95-100	90-100	85-95	20-30	16-24	1-6
	10-37	Fine sandy loam, sandy loam	SC, SC-SM	A-2, A-4, A-6	0	0	95-100	90-100	80-95	35-50	20-30	6-12
	37-56	Sandy loam, loamy sand, loamy fine sand	SM, SC-SM	A-4, A-2	0	0	95-100	90-100	65-80	15-45	15-24	1-7
	56-65	Loamy fine sand, loamy sand, sand, fine sand	SP-SM, SC-SM	A-2, A-3	0	0	95-100	90-100	80-100	5-35	10-24	NP-7
17B:												
Nansemond-------	0-10	Loamy fine sand, loamy sand, sandy loam, fine sandy loam	SC-SM, SM	A-2-4	0	0	95-100	90-100	85-95	20-30	16-24	1-6
	10-37	Fine sandy loam, sandy loam	SC, SC-SM	A-2, A-4, A-6	0	0	95-100	90-100	80-95	35-50	20-30	6-12
	37-56	Sandy loam, loamy sand, loamy fine sand	SC-SM, SM	A-4, A-2	0	0	95-100	90-100	65-80	15-45	15-24	1-7
	56-65	Loamy fine sand, loamy sand, sand, fine sand	SP-SM, SC-SM	A-2, A-3	0	0	95-100	90-100	80-100	5-35	10-24	NP-7
18F:												
Nevarc----------	0-4	Loam, silt loam, sandy loam, fine sandy loam, very fine sandy loam	CL, CL-ML, SC, SC-SM	A-4	0	0	90-100	80-100	50-100	25-90	20-33	4-12
	4-50	Clay loam, sandy clay loam, sandy clay, silty clay loam, silty clay	SC, CH, CL	A-2-7, A-7-6	0	0	90-100	80-100	65-100	30-95	42-63	23-40
	50-74	Fine sandy loam, stratified gravelly sand to clay	SC-SM, SC, CL-ML, CL, SW	A-4, A-1, A-7-6, A-6, A-2-4, A-2-6	0	0-3	65-100	50-100	25-95	2-60	0-57	NP-36

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	
18F:												
Remlik	0-35	Loamy sand, sand, loamy fine sand, fine sand	SP-SM, SM	A-1, A-2	0	0	90-100	75-100	35-84	5-35	7-16	NP-2
	35-49	Sandy loam, sandy clay loam, fine sandy loam	SM, SC-SM, SC	A-2, A-1, A-4	0	0	90-100	75-100	45-84	20-45	14-30	1-10
	49-65	Sandy loam, loamy fine sand, loamy sand, sand, fine sandy loam	SP-SM, SM	A-4, A-1	0	0	90-100	75-100	35-81	5-45	9-18	NP-3
19A:												
Nimmo	0-14	Sandy loam, fine sandy loam, loamy fine sand, loamy sand	SC-SM, SC, ML, SM, CL	A-4, A-2	0	0	100	95-100	50-85	15-55	17-32	1-9
	14-32	Fine sandy loam, sandy loam, loam	SC-SM, SC, CL	A-2, A-6, A-4	0	0	100	95-100	60-95	30-75	18-30	4-12
	32-64	Coarse sand, loamy sand, loamy fine sand, sand, fine sand, gravelly sand	SC-SM, SM, SP-SM	A-2, A-1, A-4	0	0	100	70-100	35-85	5-45	0-21	NP-4
20B:												
Ocilla	0-30	Loamy sand, loamy fine sand, sand, fine sand	SC-SM, SM	A-2	0	0	100	95-100	48-85	5-45	0-28	NP-7
	30-50	Sandy loam, fine sandy loam, sandy clay loam	SC-SM, SC	A-4, A-2	0	0	100	95-100	57-90	28-55	24-36	9-17
	50-65	Sandy loam, sandy clay loam, sandy clay, clay	CL, SC, SC-SM	A-7, A-4, A-2	0	0	100	95-100	57-100	28-95	16-52	2-32
20C:												
Ocilla	0-30	Loamy sand, loamy fine sand, sand, fine sand	SM, SC-SM	A-2	0	0	100	95-100	48-85	5-45	0-28	NP-7
	30-50	Sandy loam, fine sandy loam, sandy clay loam	SC, SC-SM	A-2, A-4	0	0	100	95-100	57-90	28-55	24-36	9-17
	50-65	Sandy loam, sandy clay loam, sandy clay, clay	SC, SC-SM, CL	A-7, A-4, A-2	0	0	100	95-100	57-100	28-95	16-52	2-32
21A:												
Pactolus	0-14	Loamy fine sand, loamy sand, fine sand, sand	SP-SM, SC-SM	A-1, A-2, A-4	0	0	100	100	50-85	5-45	0-28	NP-7
	14-84	Loamy sand, sand, loamy fine sand, fine sand	SP-SM, SC-SM	A-1, A-2, A-4	0	0	100	100	50-85	5-45	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	
22A:												
Riverview-------	0-16	Sandy loam, fine sandy loam, loam	SC-SM, SC, SM	A-4, A-2	0	0	100	100	60-85	30-50	16-28	NP-10
	16-37	Clay loam, sandy clay loam, loam, silty clay loam, sandy loam, silt loam	CL	A-6, A-7, A-4	0	0	100	100	75-95	60-80	28-44	10-22
	37-56	Sandy loam, fine sandy loam, loam, sandy clay loam	CL, SC-SM, SC	A-7, A-4, A-2	0	0	100	100	60-95	35-60	23-44	5-22
	56-84	Sandy loam, fine sandy loam, coarse sand, coarse sandy loam	SC-SM, SC, SP-SM	A-1, A-4	0	0	100	100	50-85	5-50	16-28	NP-10
23A:												
Roanoke---------	0-9	Loam, fine sandy loam, silt loam	SC-SM, CL, CL-ML, SC	A-6, A-4	0	0	90-100	80-100	56-100	32-90	21-41	6-19
	9-50	Clay, silty clay, clay loam, silty clay loam	CH, CL	A-7	0	0	90-100	80-100	72-100	56-95	43-67	25-44
	50-72	Clay loam, stratified very gravelly sand to clay	CH, CL-ML, GC-GM, CL, SC-SM, SC	A-1, A-2, A-4, A-6, A-7	0	0	75-100	35-100	18-100	2-95	16-59	2-36
24B:												
Rumford---------	0-11	Loamy sand, loamy fine sand, sandy loam, fine sandy loam	SC-SM, CL-ML, SP-SM	A-2, A-1, A-4	0	0	82-100	80-100	40-85	12-55	0-26	NP-7
	11-46	Fine sandy loam, sandy loam, sandy clay loam	SC-SM, CL, SC	A-1, A-6	0	0	84-100	80-100	48-90	24-55	18-36	4-17
	46-70	Sand, loamy sand, sandy loam, fine sandy loam, very gravelly sand	SP, SP-SM, CL	A-4, A-2, A-1	0	0-3	55-100	35-100	18-85	2-55	0-29	NP-12
Kenansville-----	0-22	Loamy sand, sand, fine sand, loamy fine sand	SP-SM, SM	A-1, A-2, A-4	0	0	99-100	95-100	48-85	5-45	10-16	NP-3
	22-39	Sandy loam, fine sandy loam, sandy clay loam	SM, CL-ML, SC-SM	A-2, A-4	0	0	99-100	95-100	57-90	29-55	12-23	1-7
	39-70	Sand, loamy sand	SM, SP-SM	A-1, A-2	0	0	99-100	95-100	48-75	5-30	8-16	NP-3
Uchee-----------	0-24	Loamy sand, loamy fine sand, sand	SM, SP-SM	A-1, A-2	0	0	95-100	90-100	50-84	5-35	0-29	NP-6
	24-45	Sandy loam, sandy clay loam	SC, SC-SM	A-2, A-6	0	0	95-100	90-100	60-88	25-50	18-40	4-21
	45-50	Sandy clay loam, sandy clay, clay	CL, SC	A-2, A-7	0	0	95-100	90-100	70-96	35-60	31-50	13-29
	50-65	Sandy clay loam, fine sandy loam, sandy loam, loamy sand	CL, SC, SP-SM	A-1, A-6	0	0	95-100	90-100	50-95	5-60	16-40	2-21

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
24C:												
Rumford---------	0-11	Loamy sand, loamy fine sand, sandy loam, fine sandy loam	SC-SM, SP-SM, CL-ML	A-1, A-2, A-4	0	0	82-100	80-100	40-85	12-55	0-26	NP-7
	11-46	Fine sandy loam, sandy loam, sandy clay loam	SC-SM, SC, CL	A-1, A-6	0	0	84-100	80-100	48-90	24-55	18-36	4-17
	46-70	Sand, loamy sand, sandy loam, fine sandy loam, very gravelly sand	SP-SM, SP, CL	A-1, A-2, A-4	0	0-3	55-100	35-100	18-85	2-55	0-29	NP-12
Kenansville-----	0-22	Loamy sand, sand, fine sand, loamy fine sand	SP-SM, SM	A-1, A-2, A-4	0	0	99-100	95-100	48-85	5-45	10-16	NP-3
	22-39	Sandy clay loam, fine sandy loam, sandy loam	CL-ML, SM, SC-SM	A-2, A-4	0	0	99-100	95-100	57-90	29-55	12-23	1-7
	39-70	Loamy sand, sand	SP-SM, SM	A-2, A-1	0	0	99-100	95-100	48-75	5-30	8-16	NP-3
Uchee-----------	0-24	Loamy sand, loamy fine sand, sand	SM, SP-SM	A-1, A-2	0	0	95-100	90-100	50-84	5-35	0-29	NP-6
	24-45	Sandy loam, sandy clay loam	SC, SC-SM	A-2, A-6	0	0	95-100	90-100	60-88	25-50	18-40	4-21
	45-50	Sandy clay loam, sandy clay, clay	CL, SC	A-2, A-7	0	0	95-100	90-100	70-96	35-60	31-50	13-29
	50-65	Sandy clay loam, fine sandy loam, sandy loam, loamy sand	CL, SC, SP-SM	A-1, A-6	0	0	95-100	90-100	50-95	5-60	16-40	2-21
25A:												
Seabrook--------	0-8	Loamy sand, loamy fine sand, sand, fine sand	SP, SC-SM	A-2, A-1, A-4	0	0	95-100	85-100	42-85	4-45	0-28	NP-7
	8-32	Loamy fine sand, loamy sand, fine sand, sand	SP, SC-SM	A-1, A-2, A-4	0	0	95-100	85-100	42-85	4-45	0-25	NP-7
	32-60	Fine sand, sand, loamy fine sand, loamy sand	SM, SP, SC-SM	A-2, A-4, A-1	0	0	95-100	85-100	42-85	4-45	0-24	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	
26A:												
Slagle----------	0-15	Fine sandy loam, sandy loam, loam, silt loam, loamy sand, loamy fine sand	SC, SC-SM	A-2, A-4, A-6	0	0-1	95-100	90-100	80-95	30-45	20-33	4-12
	15-24	Sandy clay loam, clay loam, loam, fine sandy loam, sandy loam	CL, SC, SC-SM	A-2, A-6, A-7	0	0-1	95-100	90-100	65-95	35-60	22-44	7-25
	24-50	Sandy clay loam, clay loam, loam, fine sandy loam, sandy loam	CL, SC	A-2, A-6, A-7	0	0-1	95-100	90-100	70-95	35-65	29-50	12-29
	50-72	Sandy clay loam, clay loam, loam, fine sandy loam, sandy loam, loamy sand	CL, SC, SM	A-1, A-6, A-7	0	0-3	95-100	80-100	50-100	15-60	16-42	2-22
26B:												
Slagle----------	0-15	Fine sandy loam, sandy loam, loam, silt loam, loamy sand, loamy fine sand	SC, SC-SM	A-2, A-4, A-6	0	0-1	95-100	90-100	80-95	30-45	20-33	4-12
	15-24	Sandy clay loam, clay loam, loam, fine sandy loam, sandy loam	CL, SC, SC-SM	A-2, A-6, A-7	0	0-1	95-100	90-100	65-95	35-60	22-44	7-25
	24-50	Sandy clay loam, clay loam, loam, fine sandy loam, sandy loam	CL, SC	A-2, A-6, A-7	0	0-1	95-100	90-100	70-95	35-65	29-50	12-29
	50-72	Sandy clay loam, clay loam, loam, fine sandy loam, sandy loam, loamy sand	CL, SC, SM	A-1, A-6, A-7	0	0-3	95-100	80-100	50-100	15-60	16-42	2-22
26C:												
Slagle----------	0-15	Fine sandy loam, sandy loam, loam, silt loam, loamy sand, loamy fine sand	SC, SC-SM	A-2, A-4, A-6	0	0-1	95-100	90-100	80-95	30-45	20-33	4-12
	15-24	Sandy clay loam, clay loam, loam, fine sandy loam, sandy loam	CL, SC, SC-SM	A-2, A-6, A-7	0	0-1	95-100	90-100	65-95	35-60	22-44	7-25
	24-50	Sandy clay loam, clay loam, loam, fine sandy loam, sandy loam	CL, SC	A-2, A-6, A-7	0	0-1	95-100	90-100	70-95	35-65	29-50	12-29
	50-72	Sandy clay loam, clay loam, loam, fine sandy loam, sandy loam, loamy sand	CL, SC, SM	A-1, A-6, A-7	0	0-3	95-100	80-100	50-100	15-60	16-42	2-22

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	
27A:												
State-----------	0-10	Fine sandy loam, sandy loam, loam, loamy sand	CL, CL-ML, SM	A-1, A-4	0	0	98-100	96-100	48-95	14-75	17-31	2-10
	10-56	Sandy clay loam, clay loam, loam, sandy loam	CL, SC	A-2, A-6, A-7	0	0	98-100	96-100	57-100	28-80	27-43	12-24
	56-84	Sandy loam, loamy sand, sand, gravelly sand	SC, SC-SM, SP	A-1, A-2, A-4	0	0	85-100	62-100	30-75	3-40	0-27	NP-10
27B:												
State-----------	0-10	Fine sandy loam, sandy loam, loam, loamy sand	CL, CL-ML, SM	A-1, A-4	0	0	98-100	96-100	48-95	14-75	17-31	2-10
	10-56	Sandy clay loam, clay loam, loam, sandy loam	CL, SC	A-2, A-6, A-7	0	0	98-100	96-100	57-100	28-80	27-43	12-24
	56-84	Sandy loam, loamy sand, sand, gravelly sand	SC, SC-SM, SP	A-1, A-2, A-4	0	0	85-100	62-100	30-75	3-40	0-27	NP-10
28B:												
Tarboro---------	0-8	Loamy sand, loamy fine sand, sand	SC-SM, SM, SP-SM, SW-SM	A-1, A-2, A-4	0	0	100	100	50-85	5-45	0-26	NP-7
	8-84	Sand, loamy fine sand, loamy sand, gravelly sand	SC-SM, SM, SP, SP-SM, SW-SM	A-1, A-2, A-4	0	0	90-100	70-100	35-85	4-45	0-20	NP-4
29A:												
Tomotley--------	0-12	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2, A-4	0	0	97-100	92-100	57-95	28-75	18-43	2-13
	12-48	Sandy clay loam, clay loam, fine sandy loam, sandy loam, loam	SC-SM, SC, CL	A-6	0	0	97-100	92-100	57-100	28-80	28-45	12-25
	48-60	Sandy loam, clay loam, fine sandy loam, sandy clay loam, loam	CL, SC, SC-SM	A-4, A-6, A-2	0	0	97-100	92-100	57-100	28-80	24-49	9-28
	60-84	Loamy coarse sand, coarse sand, sand, clay	CL, CL-ML, SC, SC-SM, SM	A-7, A-4, A-3, A-2, A-1, A-6	0	0	100	100	50-100	5-95	0-52	NP-32
30B:												
Uchee-----------	0-24	Loamy sand, loamy fine sand, sand	SM, SP-SM	A-1, A-2	0	0	95-100	90-100	50-84	5-35	0-29	NP-6
	24-45	Sandy loam, sandy clay loam	SC, SC-SM	A-2, A-6	0	0	95-100	90-100	60-88	25-50	18-40	4-21
	45-50	Sandy clay loam, sandy clay, clay	CL, SC	A-2, A-7	0	0	95-100	90-100	70-96	35-60	31-50	13-29
	50-65	Sandy clay loam, fine sandy loam, sandy loam, loamy sand	CL, SC, SP-SM	A-1, A-6	0	0	95-100	90-100	50-95	5-60	16-40	2-21

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
30C:												
Uchee-----------	0-24	Loamy sand, loamy fine sand, sand	SM, SP-SM	A-1, A-2	0	0	95-100	90-100	50-84	5-35	0-29	NP-6
	24-45	Sandy loam, sandy clay loam	SC, SC-SM	A-2, A-6	0	0	95-100	90-100	60-88	25-50	18-40	4-21
	45-50	Sandy clay loam, sandy clay, clay	CL, SC	A-2, A-7	0	0	95-100	90-100	70-96	35-60	31-50	13-29
	50-65	Sandy clay loam, fine sandy loam, sandy loam, loamy sand	CL, SC, SP-SM	A-1, A-6	0	0	95-100	90-100	50-95	5-60	16-40	2-21
30D:												
Uchee-----------	0-24	Loamy sand, loamy fine sand, sand	SM, SP-SM	A-1, A-2	0	0	95-100	90-100	50-84	5-35	0-29	NP-6
	24-45	Sandy loam, sandy clay loam	SC, SC-SM	A-2, A-6	0	0	95-100	90-100	60-88	25-50	18-40	4-21
	45-50	Sandy clay loam, sandy clay, clay	CL, SC	A-2, A-7	0	0	95-100	90-100	70-96	35-60	31-50	13-29
	50-65	Sandy clay loam, fine sandy loam, sandy loam, loamy sand	CL, SC, SP-SM	A-1, A-6	0	0	95-100	90-100	50-95	5-60	16-40	2-21
31. Udorthents												
32A. Urban land-Udorthentes												
33F:												
Winton----------	0-14	Fine sandy loam, sandy loam, loam	SC, SM	A-7, A-6, A-2	0	0-1	95-100	90-100	75-100	30-50	19-43	3-18
	14-35	Sandy clay loam, sandy loam, clay loam, fine sandy loam	SC, CL	A-6, A-7	0	0-1	95-100	90-100	70-95	40-60	27-44	12-25
	35-56	Sandy loam, fine sandy loam, loamy sand, loamy fine sand, sandy clay loam	CL, SC-SM, SM	A-7, A-1, A-4	0	0-1	95-100	90-100	45-100	15-65	0-44	NP-25
	56-72	Loamy sand, sand, clay	SM, SP-SM, CL	A-1, A-2, A-7	0	0-1	95-100	90-100	45-100	5-65	0-48	NP-28

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	
34A:												
Yemassee--------	0-15	Fine sandy loam, sandy loam, loamy fine sand, loamy sand	SC, SC-SM	A-2, A-4	0	0	100	100	50-85	15-55	21-39	6-13
	15-40	Sandy clay loam, clay loam, fine sandy loam, sandy loam	SC-SM, CL, SC	A-6, A-7	0	0	100	100	60-100	30-80	27-47	12-24
	40-60	Sandy loam, sandy clay loam, clay loam	CL-ML, SC, SC-SM, CL	A-2, A-4, A-6	0	0	100	100	60-100	30-80	22-49	7-28
W.												
Water												

Table 17.—Physical Soil Properties

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer. Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
1B:														
Alaga----------------	0-4	70-98	2-28	2-12	1.55-1.75	42.00-141.00	0.05-0.09	0.0-2.9	0.5-3.0	.10	.10	5	2	134
	4-35	70-98	2-28	2-12	1.60-1.75	42.00-141.00	0.04-0.09	0.0-2.9	0.0-0.5	.28	.28			
	35-84	70-98	2-28	2-12	1.60-1.75	42.00-141.00	0.02-0.09	0.0-2.9	0.0-0.2	.10	.10			
2A:														
Altavista------------	0-11	20-80	5-75	10-24	1.30-1.50	14.00-42.00	0.12-0.20	0.0-2.9	0.5-3.0	.28	.28	5	3	86
	11-38	22-75	5-45	18-35	1.30-1.50	4.00-14.00	0.10-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-72	50-98	1-25	2-35	1.35-1.60	4.00-142.00	0.04-0.16	0.0-2.9	0.0-0.2	.15	.15			
2B:														
Altavista------------	0-11	20-80	5-75	10-24	1.30-1.50	14.00-42.00	0.12-0.20	0.0-2.9	0.5-3.0	.28	.28	5	3	86
	11-38	22-75	5-45	18-35	1.30-1.50	4.00-14.00	0.10-0.18	0.0-2.9	0.0-0.5	.28	.28			
	38-72	50-98	1-25	2-35	1.35-1.60	4.00-142.00	0.04-0.16	0.0-2.9	0.0-0.2	.15	.15			
3A:														
Augusta--------------	0-11	30-82	5-45	5-20	1.40-1.70	14.00-42.00	0.10-0.15	0.0-2.9	0.5-2.0	.20	.20	4	2	134
	11-46	25-75	5-48	20-35	1.35-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.15	.15			
	46-84	52-98	1-35	2-20	1.35-1.70	14.00-141.00	0.04-0.15	0.0-2.9	0.0-0.2	.10	.10			
4A:														
Bibb-----------------	0-8	20-95	10-75	2-20	1.50-1.70	4.00-14.00	0.04-0.24	0.0-2.9	1.0-3.0	.28	.28	5	3	86
	8-50	20-80	8-75	5-18	1.45-1.75	4.00-14.00	0.04-0.22	0.0-2.9	0.5-1.0	.10	.10			
	50-84	20-98	1-75	2-18	1.45-1.75	4.00-141.00	0.04-0.22	0.0-2.9	0.5-3.0	.02	.05			
5B:														
Bojac----------------	0-13	30-88	1-35	3-8	1.20-1.50	42.00-141.00	0.05-0.10	0.0-2.9	0.5-1.0	.10	.10	4	2	134
	13-48	30-78	5-35	11-22	1.35-1.55	14.00-42.00	0.08-0.16	0.0-2.9	0.0-0.5	.20	.24			
	48-66	72-99	0-25	1-8	1.30-1.50	42.00-141.00	0.02-0.07	0.0-2.9	0.0-0.2	.05	.10			
6A:														
Buncombe-------------	0-7	72-98	2-20	3-12	1.60-1.75	42.00-141.00	0.06-0.10	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	7-58	72-98	2-20	3-12	1.60-1.75	42.00-141.00	0.03-0.07	0.0-2.9	0.0-0.5	.10	.10			
	58-82	35-99	1-40	1-15	1.50-1.75	42.00-141.00	0.01-0.10	0.0-2.9	0.0-0.2	.05	.10			
7A:														
Chastain, frequently flooded-------------	0-3	10-50	30-75	15-27	1.20-1.40	1.40-4.00	0.12-0.18	3.0-5.9	1.0-6.0	.24	.24	4	6	48
	3-49	5-45	25-65	35-60	1.30-1.50	0.42-1.40	0.12-0.16	3.0-5.9	1.0-3.0	.24	.24			
	49-84	5-75	5-65	25-60	1.35-1.55	0.42-1.40	0.10-0.16	3.0-5.9	0.5-3.0	.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	Wind erodibility group	Wind erodibility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
8A:														
Chastain, ponded-----	0-3	10-50	30-75	15-27	1.20-1.40	1.40-4.00	0.12-0.18	3.0-5.9	1.0-6.0	.24	.24	4	8	0
	3-49	5-45	25-65	35-60	1.30-1.50	0.42-1.40	0.12-0.16	3.0-5.9	1.0-3.0	.24	.24			
	49-84	5-75	5-65	25-60	1.35-1.55	0.42-1.40	0.10-0.16	3.0-5.9	0.5-3.0	.20	.20			
9A:														
Chewacla-------------	0-6	10-75	10-75	10-35	1.30-1.60	4.00-14.00	0.15-0.24	0.0-2.9	1.0-4.0	.28	.28	5	6	48
	6-32	10-75	10-75	18-35	1.30-1.50	4.00-14.00	0.15-0.24	0.0-2.9	0.5-2.0	.32	.32			
	32-53	10-75	10-75	18-35	1.30-1.50	4.00-14.00	0.15-0.24	0.0-2.9	0.5-2.0	.32	.32			
	53-84	10-85	5-75	5-27	1.30-1.50	4.00-14.00	0.15-0.24	0.0-2.9	0.5-2.0	.32	.32			
10A:														
Craven---------------	0-7	10-80	5-70	7-27	1.30-1.45	1.40-14.00	0.15-0.22	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	7-55	5-45	30-65	35-60	1.30-1.45	0.42-1.40	0.11-0.15	3.0-5.9	0.0-0.5	.32	.32			
	55-72	20-90	2-50	5-35	1.35-1.60	0.42-42.00	0.10-0.19	0.0-2.9	0.0-0.5	.32	.32			
10B:														
Craven---------------	0-7	10-80	5-70	7-27	1.30-1.45	1.40-14.00	0.15-0.22	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	7-55	5-45	30-65	35-60	1.30-1.45	0.42-1.40	0.11-0.15	3.0-5.9	0.0-0.5	.32	.32			
	55-72	20-90	2-50	5-35	1.35-1.60	0.42-42.00	0.10-0.19	0.0-2.9	0.0-0.5	.32	.32			
10C:														
Craven---------------	0-7	10-80	5-70	7-27	1.30-1.45	1.40-14.00	0.15-0.22	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	7-55	5-45	30-65	35-60	1.30-1.45	0.42-1.40	0.11-0.15	3.0-5.9	0.0-0.5	.32	.32			
	55-72	20-90	2-50	5-35	1.35-1.60	0.42-42.00	0.10-0.19	0.0-2.9	0.0-0.5	.32	.32			
11B:														
Craven---------------	0-5	20-45	20-45	27-40	1.30-1.45	0.42-1.40	0.13-0.15	3.0-5.9	0.5-1.0	.28	.28	5	6	48
	5-24	5-45	30-65	35-60	1.30-1.45	0.42-1.40	0.11-0.15	3.0-5.9	0.0-0.5	.32	.32			
	24-60	20-90	2-50	5-35	1.35-1.60	0.42-42.00	0.10-0.19	0.0-2.9	0.0-0.5	.32	.32			
11C:														
Craven---------------	0-5	20-45	20-45	27-40	1.30-1.45	0.42-1.40	0.13-0.15	3.0-5.9	0.5-1.0	.28	.28	5	6	48
	5-24	5-45	30-65	35-60	1.30-1.45	0.42-1.40	0.11-0.15	3.0-5.9	0.0-0.5	.32	.32			
	24-60	20-90	2-50	5-35	1.35-1.60	0.42-42.00	0.10-0.19	0.0-2.9	0.0-0.5	.32	.32			
12A:														
Dorovan--------------	0-17	---	---	---	0.25-0.40	4.00-14.00	0.20-0.25	0.0-2.9	20-80	---	---	5	8	0
	17-65	---	---	---	0.35-0.55	4.00-14.00	0.20-0.25	0.0-2.9	20-80	---	---			
	65-80	---	---	5-45	1.40-1.65	42.00-141.00	0.05-0.08	0.0-2.9	5.0-20	.17	.17			
13A:														
Emporia--------------	0-17	30-85	5-45	5-18	1.30-1.40	14.00-141.00	0.10-0.17	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	17-33	30-80	10-45	18-35	1.35-1.45	1.40-14.00	0.10-0.18	0.0-2.9	0.0-0.5	.28	.28			
	33-40	20-70	10-45	21-45	1.45-1.60	0.01-4.00	0.10-0.16	0.0-2.9	0.0-0.5	.20	.20			
	40-72	30-80	10-45	5-45	1.45-1.60	0.01-14.00	0.08-0.18	0.0-2.9	0.0-0.5	.20	.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	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
13B:														
Emporia--------------	0-17	30-85	5-45	5-18	1.30-1.40	14.00-141.00	0.10-0.17	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	17-33	30-80	10-45	18-35	1.35-1.45	1.40-14.00	0.10-0.18	0.0-2.9	0.0-0.5	.28	.28			
	33-40	20-70	10-45	21-45	1.45-1.60	0.01-4.00	0.10-0.16	0.0-2.9	0.0-0.5	.20	.20			
	40-72	30-80	10-45	5-45	1.45-1.60	0.01-14.00	0.08-0.18	0.0-2.9	0.0-0.5	.20	.24			
13C:														
Emporia--------------	0-17	30-85	5-45	5-18	1.30-1.40	14.00-141.00	0.10-0.17	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	17-33	30-80	10-45	18-35	1.35-1.45	1.40-14.00	0.10-0.18	0.0-2.9	0.0-0.5	.28	.28			
	33-40	20-70	10-45	21-45	1.45-1.60	0.01-4.00	0.10-0.16	0.0-2.9	0.0-0.5	.20	.20			
	40-72	30-80	10-45	5-45	1.45-1.60	0.01-14.00	0.08-0.18	0.0-2.9	0.0-0.5	.20	.24			
14A:														
Exum-----------------	0-11	5-75	10-75	6-18	1.30-1.50	4.00-14.00	0.21-0.22	0.0-2.9	0.5-2.0	.43	.43	5	5	56
	11-57	5-45	20-75	18-35	1.40-1.50	1.40-4.00	0.13-0.18	0.0-2.9	0.0-0.5	.24	.24			
	57-70	5-45	10-75	18-50	1.40-1.60	1.40-4.00	0.13-0.18	0.0-2.9	0.0-0.5	.24	.24			
15A:														
Munden---------------	0-17	40-85	5-45	3-10	1.20-1.35	14.00-42.00	0.06-0.10	0.0-2.9	0.5-1.0	.17	.17	4	2	134
	17-36	40-75	10-45	8-18	1.20-1.35	4.00-42.00	0.08-0.18	0.0-2.9	0.5-1.0	.24	.24			
	36-65	40-95	2-45	2-12	1.35-1.55	14.00-141.00	0.04-0.08	0.0-2.9	0.0-0.5	.32	.32			
15B:														
Munden---------------	0-17	40-85	5-45	3-10	1.20-1.35	14.00-42.00	0.06-0.10	0.0-2.9	0.5-1.0	.17	.17	4	2	134
	17-36	40-75	10-45	8-18	1.20-1.35	4.00-42.00	0.08-0.18	0.0-2.9	0.5-1.0	.24	.24			
	36-65	40-95	2-45	2-12	1.35-1.55	14.00-141.00	0.04-0.08	0.0-2.9	0.0-0.5	.32	.32			
16A:														
Myatt----------------	0-12	10-85	5-75	5-25	1.30-1.60	4.00-14.00	0.16-0.24	0.0-2.9	0.5-4.0	.28	.28	5	5	56
	12-52	22-80	20-45	18-35	1.30-1.50	1.40-14.00	0.12-0.20	0.0-2.9	0.0-1.0	.15	.15			
	52-80	25-90	5-50	2-45	1.35-1.55	1.40-42.00	0.05-0.20	0.0-2.9	0.0-0.5	.20	.24			
17A:														
Nansemond------------	0-10	55-90	1-30	4-10	1.20-1.45	14.00-141.00	0.05-0.10	0.0-2.9	0.5-1.0	.20	.20	5	2	134
	10-37	55-80	5-30	10-18	1.25-1.45	14.00-42.00	0.10-0.16	0.0-2.9	0.0-0.5	.28	.28			
	37-56	60-99	5-30	4-12	1.35-1.55	14.00-42.00	0.02-0.13	0.0-2.9	0.0-0.2	.28	.28			
	56-65	75-99	0-30	2-12	1.35-1.55	42.00-141.00	0.02-0.10	0.0-2.9	0.0-0.2	.24	.24			
17B:														
Nansemond------------	0-10	55-90	1-30	4-10	1.20-1.45	14.00-141.00	0.05-0.10	0.0-2.9	0.5-1.0	.20	.20	5	2	134
	10-37	55-80	5-30	10-18	1.25-1.45	14.00-42.00	0.10-0.16	0.0-2.9	0.0-0.5	.28	.28			
	37-56	60-99	5-30	4-12	1.35-1.55	14.00-42.00	0.02-0.13	0.0-2.9	0.0-0.2	.28	.28			
	56-65	75-99	0-30	2-12	1.35-1.55	42.00-141.00	0.02-0.10	0.0-2.9	0.0-0.2	.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	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
18F:														
Nevarc	0-4	5-80	5-75	8-18	1.30-1.55	14.00-42.00	0.14-0.19	0.0-2.9	0.5-2.0	.32	.32	5	3	86
	4-50	5-75	15-65	33-55	1.25-1.55	0.42-1.40	0.09-0.15	3.0-5.9	0.0-0.5	.24	.24			
	50-74	10-98	0-45	2-50	1.50-1.70	4.00-42.00	0.04-0.16	0.0-2.9	0.0-0.5	.32	.32			
Remlik	0-35	75-98	1-20	0-10	1.20-1.50	42.00-141.00	0.04-0.10	0.0-2.9	0.5-1.0	.17	.17	4	2	134
	35-49	50-80	5-35	8-25	1.20-1.35	4.00-42.00	0.10-0.16	0.0-2.9	0.0-0.5	.15	.20			
	49-65	60-98	1-35	2-12	1.35-1.55	42.00-141.00	0.04-0.16	0.0-2.9	0.0-0.5	.28	.28			
19A:														
Nimmo	0-14	55-88	3-40	4-14	1.20-1.35	14.00-42.00	0.08-0.16	0.0-2.9	1.0-3.0	.20	.20	4	4	86
	14-32	35-75	5-45	8-18	1.20-1.35	4.00-14.00	0.08-0.18	0.0-2.9	0.0-0.5	.17	.17			
	32-64	80-100	0-20	1-8	1.35-1.55	14.00-141.00	0.04-0.08	0.0-2.9	0.0-0.5	.17	.17			
20B:														
Ocilla	0-30	75-99	0-25	3-12	1.55-1.70	42.00-141.00	0.08-0.11	0.0-2.9	0.5-2.0	.10	.10	5	2	134
	30-50	50-80	5-30	15-25	1.55-1.70	4.00-42.00	0.12-0.14	0.0-2.9	0.0-0.5	.24	.24			
	50-65	30-85	5-45	5-45	1.55-1.80	4.00-42.00	0.06-0.16	0.0-2.9	0.0-0.2	.24	.24			
20C:														
Ocilla	0-30	75-99	0-25	3-12	1.55-1.70	42.00-141.00	0.08-0.11	0.0-2.9	0.5-2.0	.10	.10	5	2	134
	30-50	50-80	5-30	15-25	1.55-1.70	4.00-42.00	0.12-0.14	0.0-2.9	0.0-0.5	.24	.24			
	50-65	30-85	5-45	5-45	1.55-1.80	4.00-42.00	0.06-0.16	0.0-2.9	0.0-0.2	.24	.24			
21A:														
Pactolus	0-14	72-99	0-25	2-12	1.60-1.75	42.00-141.00	0.05-0.10	0.0-2.9	0.5-2.0	.17	.17	5	2	134
	14-84	72-99	0-25	2-12	1.60-1.75	42.00-141.00	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
22A:														
Riverview	0-16	40-80	10-45	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	3	86
	16-37	15-70	15-65	18-35	1.20-1.40	4.00-14.00	0.12-0.22	0.0-2.9	0.5-1.0	.24	.24			
	37-56	30-70	15-45	12-35	1.20-1.40	4.00-14.00	0.12-0.19	0.0-2.9	0.5-1.0	.24	.24			
	56-84	60-95	2-35	4-18	1.20-1.50	14.00-42.00	0.04-0.16	0.0-2.9	0.5-1.0	.17	.17			
23A:														
Roanoke	0-9	5-75	10-80	10-27	1.20-1.50	4.00-14.00	0.14-0.20	0.0-2.9	0.5-2.0	.28	.28	4	5	56
	9-50	5-40	30-60	35-60	1.35-1.65	0.42-1.40	0.10-0.19	3.0-5.9	0.0-0.5	.20	.20			
	50-72	5-95	1-75	5-50	1.20-1.50	0.01-141.00	0.04-0.14	1.0-5.9	0.0-0.5	.24	.24			
24B:														
Rumford	0-11	45-90	0-45	2-12	1.25-1.45	42.00-141.00	0.06-0.10	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	11-46	45-85	2-25	8-25	1.45-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.32	.32			
	46-70	45-99	0-45	2-18	1.50-1.70	14.00-141.00	0.04-0.10	0.0-1.9	0.0-0.5	.10	.10			

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	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
24B:														
Kenansville----------	0-22	80-95	2-20	3-10	1.50-1.70	42.00-141.00	0.03-0.07	0.0-2.9	0.5-2.0	.10	.10	5	2	134
	22-39	55-80	2-40	5-22	1.45-1.60	4.00-42.00	0.10-0.16	0.0-2.9	0.0-0.2	.24	.24			
	39-70	80-95	2-20	1-10	1.55-1.70	42.00-141.00	0.00-0.05	0.0-2.9	0.0-0.2	.10	.10			
Uchee----------------	0-24	75-95	2-20	3-10	1.30-1.70	42.00-141.00	0.05-0.10	0.0-2.9	0.2-3.0	.15	.15	5	2	134
	24-45	55-75	5-25	8-30	1.40-1.60	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
	45-50	30-70	5-30	20-40	1.40-1.60	1.40-14.00	0.10-0.16	3.0-5.9	0.0-0.5	.20	.20			
	50-65	55-85	5-35	5-30	1.40-1.70	4.00-42.00	0.05-0.15	0.0-2.9	0.0-0.5	.24	.24			
24C:														
Rumford--------------	0-11	45-90	0-45	2-12	1.25-1.45	42.00-141.00	0.06-0.10	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	11-46	45-85	2-25	8-25	1.45-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.32	.32			
	46-70	45-99	0-45	2-18	1.50-1.70	14.00-141.00	0.04-0.10	0.0-1.9	0.0-0.5	.10	.10			
Kenansville----------	0-22	80-95	2-20	3-10	1.50-1.70	42.00-141.00	0.03-0.07	0.0-2.9	0.5-2.0	.10	.10	5	2	134
	22-39	55-80	2-40	5-22	1.45-1.60	4.00-42.00	0.10-0.16	0.0-2.9	0.0-0.2	.24	.24			
	39-70	80-95	2-20	1-10	1.55-1.70	42.00-141.00	0.00-0.05	0.0-2.9	0.0-0.2	.10	.10			
Uchee----------------	0-24	75-95	2-20	3-10	1.30-1.70	42.00-141.00	0.05-0.10	0.0-2.9	0.2-3.0	.15	.15	5	2	134
	24-45	55-75	5-25	8-30	1.40-1.60	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
	45-50	30-70	5-30	20-40	1.40-1.60	1.40-14.00	0.10-0.16	3.0-5.9	0.0-0.5	.20	.20			
	50-65	55-85	5-35	5-30	1.40-1.70	4.00-42.00	0.05-0.15	0.0-2.9	0.0-0.5	.24	.24			
25A:														
Seabrook-------------	0-8	72-99	0-28	2-12	1.25-1.55	42.00-141.00	0.05-0.11	0.0-2.9	0.5-2.0	.10	.10	5	2	134
	8-32	72-99	0-28	2-12	1.30-1.60	42.00-141.00	0.02-0.09	0.0-2.9	0.0-0.5	.28	.28			
	32-60	72-99	0-28	2-12	1.30-1.60	42.00-141.00	0.02-0.09	0.0-2.9	0.0-0.2	.20	.20			
26A:														
Slagle---------------	0-15	30-85	5-60	8-18	1.30-1.45	14.00-42.00	0.10-0.14	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	15-24	30-75	10-45	12-35	1.30-1.45	4.00-14.00	0.10-0.18	0.0-2.9	0.0-0.5	.24	.24			
	24-50	30-75	10-45	18-40	1.35-1.60	0.42-4.00	0.12-0.18	3.0-5.9	0.0-0.5	.24	.24			
	50-72	30-90	10-45	5-32	1.35-1.50	1.40-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.24	.24			
26B:														
Slagle---------------	0-15	30-85	5-60	8-18	1.30-1.45	14.00-42.00	0.10-0.14	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	15-24	30-75	10-45	12-35	1.30-1.45	4.00-14.00	0.10-0.18	0.0-2.9	0.0-0.5	.24	.24			
	24-50	30-75	10-45	18-40	1.35-1.60	0.42-4.00	0.12-0.18	3.0-5.9	0.0-0.5	.24	.24			
	50-72	30-90	10-45	5-32	1.35-1.50	1.40-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.24	.24			
26C:														
Slagle---------------	0-15	30-85	5-60	8-18	1.30-1.45	14.00-42.00	0.10-0.14	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	15-24	30-75	10-45	12-35	1.30-1.45	4.00-14.00	0.10-0.18	0.0-2.9	0.0-0.5	.24	.24			
	24-50	30-75	10-45	18-40	1.35-1.60	0.42-4.00	0.12-0.18	3.0-5.9	0.0-0.5	.24	.24			
	50-72	30-90	10-45	5-32	1.35-1.50	1.40-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.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	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
27A:														
State----------------	0-10	30-88	5-45	5-15	1.25-1.40	4.00-42.00	0.08-0.15	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	10-56	25-75	5-45	18-34	1.35-1.50	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.28	.28			
	56-84	50-98	1-40	2-15	1.35-1.50	14.00-141.00	0.02-0.10	0.0-2.9	0.0-0.2	.17	.17			
27B:														
State----------------	0-10	30-88	5-45	5-15	1.25-1.40	4.00-42.00	0.08-0.15	0.0-2.9	0.5-2.0	.28	.28	5	3	86
	10-56	25-75	5-45	18-34	1.35-1.50	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.28	.28			
	56-84	50-98	1-40	2-15	1.35-1.50	14.00-141.00	0.02-0.10	0.0-2.9	0.0-0.2	.17	.17			
28B:														
Tarboro--------------	0-8	72-99	0-18	3-12	1.55-1.70	42.00-141.00	0.05-0.09	0.0-2.9	0.5-1.0	.10	.10	5	2	134
	8-84	72-99	0-18	2-7	1.60-1.75	141.00- 141.00	0.02-0.06	0.0-2.9	0.0-0.2	.10	.10			
29A:														
Tomotley-------------	0-12	30-80	5-45	5-20	1.30-1.60	14.00-42.00	0.10-0.15	0.0-2.9	1.0-6.0	.20	.20	5	3	86
	12-48	25-80	5-45	18-35	1.30-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.5-1.0	.15	.15			
	48-60	25-80	5-45	15-40	1.30-1.60	1.40-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.24	.24			
	60-84	20-99	1-50	2-45	1.30-1.60	1.40-141.00	0.02-0.15	0.0-2.9	0.0-0.2	.10	.10			
30B:														
Uchee----------------	0-24	75-95	2-20	3-10	1.30-1.70	42.00-141.00	0.05-0.10	0.0-2.9	0.2-3.0	.15	.15	5	2	134
	24-45	55-75	5-25	8-30	1.40-1.60	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
	45-50	30-70	5-30	20-40	1.40-1.60	1.40-14.00	0.10-0.16	3.0-5.9	0.0-0.5	.20	.20			
	50-65	55-85	5-35	5-30	1.40-1.70	4.00-42.00	0.05-0.15	0.0-2.9	0.0-0.5	.24	.24			
30C:														
Uchee----------------	0-24	75-95	2-20	3-10	1.30-1.70	42.00-141.00	0.05-0.10	0.0-2.9	0.2-3.0	.15	.15	5	2	134
	24-45	55-75	5-25	8-30	1.40-1.60	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
	45-50	30-70	5-30	20-40	1.40-1.60	1.40-14.00	0.10-0.16	3.0-5.9	0.0-0.5	.20	.20			
	50-65	55-85	5-35	5-30	1.40-1.70	4.00-42.00	0.05-0.15	0.0-2.9	0.0-0.5	.24	.24			
30D:														
Uchee----------------	0-24	75-95	2-20	3-10	1.30-1.70	42.00-141.00	0.05-0.10	0.0-2.9	0.2-3.0	.15	.15	5	2	134
	24-45	55-75	5-25	8-30	1.40-1.60	4.00-14.00	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
	45-50	30-70	5-30	20-40	1.40-1.60	1.40-14.00	0.10-0.16	3.0-5.9	0.0-0.5	.20	.20			
	50-65	55-85	5-35	5-30	1.40-1.70	4.00-42.00	0.05-0.15	0.0-2.9	0.0-0.5	.24	.24			
31.														
Udorthents														
32A.														
Urban land-Udorthents														

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	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
33F:														
Winton---------------	0-14	35-75	10-45	7-27	1.30-1.40	14.00-42.00	0.12-0.20	0.0-2.9	0.5-3.0	.20	.20	5	3	86
	14-35	35-75	10-45	18-35	1.30-1.50	1.40-14.00	0.12-0.20	0.0-2.9	0.0-0.5	.24	.24			
	35-56	45-90	2-45	2-35	1.30-1.50	1.40-14.00	0.05-0.15	0.0-2.9	0.0-0.5	.10	.10			
	56-72	45-98	2-45	2-40	1.30-1.50	1.40-14.00	0.05-0.15	0.0-2.9	0.0-0.2	.10	.10			
34A:														
Yemassee-------------	0-15	55-88	1-30	10-20	1.30-1.60	14.00-42.00	0.10-0.15	0.0-2.9	0.5-4.0	.24	.24	5	3	86
	15-40	30-80	5-30	18-35	1.30-1.50	4.00-14.00	0.11-0.18	0.0-2.9	0.0-2.0	.15	.15			
	40-60	25-80	5-35	12-40	1.30-1.50	4.00-14.00	0.11-0.17	0.0-2.9	0.0-0.5	.24	.24			
W.														
Water														

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
	Inches	meq/100 g	meq/100 g	pH
1B:				
Alaga	0-4	1.6-9.8	1.2-7.3	4.0-6.0
	4-35	0.5-4.1	0.4-3.1	4.0-6.0
	35-84	0.5-3.6	0.4-2.7	4.0-6.0
2A:				
Altavista	0-11	3.6-13	2.7-9.6	4.0-7.0
	11-38	4.5-9.9	3.4-7.4	4.0-6.5
	38-72	0.5-9.3	0.4-7.0	4.0-6.0
2B:				
Altavista	0-11	3.6-13	2.7-9.6	4.0-7.0
	11-38	4.5-9.9	3.4-7.4	4.0-6.5
	38-72	0.5-9.3	0.4-7.0	4.0-6.0
3A:				
Augusta	0-11	2.4-9.5	1.8-7.1	4.5-6.0
	11-46	5.0-9.9	3.8-7.4	4.5-6.0
	46-84	0.5-5.6	0.4-4.2	4.5-6.0
4A:				
Bibb	0-8	2.8-12	2.1-8.8	4.5-5.5
	8-50	2.4-9.0	1.8-6.8	4.5-5.5
	50-84	1.6-14	1.2-10	4.5-5.5
5B:				
Bojac	0-13	1.9-4.2	1.4-3.1	4.0-6.5
	13-48	2.0-6.6	2.1-5.0	4.0-6.5
	48-66	0.2-2.6	0.2-1.9	4.5-6.0
6A:				
Buncombe	0-7	1.9-5.2	1.4-3.9	4.5-6.5
	7-58	0.8-4.1	0.6-3.1	4.5-6.5
	58-82	0.2-4.3	0.2-3.2	4.5-6.5
7A:				
Chastain, frequently flooded	0-3	6.0-20	4.5-15	4.0-6.0
	3-49	11-22	8.2-16	4.0-6.0
	49-84	7.4-22	5.5-16	4.0-6.0
8A:				
Chastain, ponded	0-3	6.0-20	4.5-15	4.0-6.0
	3-49	11-22	8.2-16	4.0-6.0
	49-84	7.4-22	5.5-16	4.0-6.0
9A:				
Chewacla	0-6	4.8-18	3.6-13	4.5-6.5
	6-32	5.6-13	4.2-9.9	4.5-6.5
	32-53	5.6-13	4.2-9.9	4.5-6.5
	53-84	2.4-11	1.8-8.4	4.5-6.5
10A:				
Craven	0-7	4.0-14	3.0-11	3.5-6.5
	7-55	12-22	9.0-17	3.5-5.5
	55-72	2.0-13	1.0-10	3.5-5.5

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
10B:				
Craven	0-7	4.0-14	3.0-11	3.5-6.5
	7-55	12-22	9.0-17	3.5-5.5
	55-72	2.0-13	1.0-10	3.5-5.5
10C:				
Craven	0-7	4.0-14	3.0-11	3.5-6.5
	7-55	12-22	9.0-17	3.5-5.5
	55-72	2.0-13	1.0-10	3.5-5.5
11B:				
Craven	0-5	11-16	8.0-12	3.5-6.5
	5-24	12-22	9.0-17	3.5-5.5
	24-60	2.0-13	1.0-10	3.5-5.5
11C:				
Craven	0-5	11-16	8.0-12	3.5-6.5
	5-24	12-22	9.0-17	3.5-5.5
	24-60	2.0-13	1.0-10	3.5-5.5
12A:				
Dorovan	0-17	45-187	34-140	3.5-5.5
	17-65	45-187	34-140	3.5-5.5
	65-80	13-52	10-39	4.5-5.5
13A:				
Emporia	0-17	2.9-9.0	2.2-6.8	4.5-6.0
	17-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-40	5.2-11	3.9-8.3	4.5-6.0
	40-72	1.2-11	0.9-8.3	4.5-6.0
13B:				
Emporia	0-17	2.9-9.0	2.2-6.8	4.5-6.0
	17-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-40	5.2-11	3.9-8.3	4.5-6.0
	40-72	1.2-11	0.9-8.3	4.5-6.0
13C:				
Emporia	0-17	2.9-9.0	2.2-6.8	4.5-6.0
	17-33	4.5-9.9	3.4-7.4	4.5-6.0
	33-40	5.2-11	3.9-8.3	4.5-6.0
	40-72	1.2-11	0.9-8.3	4.5-6.0
14A:				
Exum	0-11	3.2-11	2.4-8.1	3.6-6.0
	11-57	6.3-13	4.7-10	3.6-5.5
	57-70	6.3-18	4.7-10	3.6-5.5
15A:				
Munden	0-17	2.2-5.8	1.6-4.3	4.5-6.0
	17-36	3.9-8.6	2.9-6.4	4.5-6.0
	36-65	0.7-5.3	0.5-4.0	4.5-6.0
15B:				
Munden	0-17	2.2-5.8	1.6-4.3	4.5-6.0
	17-36	3.9-8.6	2.9-6.4	4.5-6.0
	36-65	0.7-5.3	0.5-4.0	4.5-6.0

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
16A:				
Myatt----------------	0-12	2.4-15	1.8-11	4.5-6.0
	12-52	4.5-11	3.4-8.2	4.0-5.5
	52-80	0.5-12	0.4-9.3	4.0-5.5
17A:				
Nansemond------------	0-10	2.1-4.8	1.6-3.6	4.0-6.0
	10-37	2.5-5.6	1.9-4.2	4.0-6.0
	37-56	0.5-3.6	0.4-2.7	4.0-6.0
	56-65	0.5-3.6	0.4-2.7	4.0-6.0
17B:				
Nansemond------------	0-10	2.1-4.8	1.6-3.6	4.0-6.0
	10-37	2.5-5.6	1.9-4.2	4.0-6.0
	37-56	0.5-3.6	0.4-2.7	4.0-6.0
	56-65	0.5-3.6	0.4-2.7	4.0-6.0
18F:				
Nevarc---------------	0-4	3.1-9.0	2.3-6.8	3.6-6.0
	4-50	8.8-15	6.6-11	3.6-6.0
	50-74	2.5-12	1.9-9.6	3.6-6.0
Remlik---------------	0-35	1.1-4.8	0.8-3.6	4.5-5.5
	35-49	2.0-7.4	1.5-5.5	4.5-5.5
	49-65	0.5-4.1	0.4-3.1	4.5-5.5
19A:				
Nimmo----------------	0-14	3.6-12	2.7-8.7	4.0-5.5
	14-32	2.8-7.4	2.1-5.6	4.0-5.5
	32-64	0.3-3.9	0.3-2.9	4.0-5.5
20B:				
Ocilla---------------	0-30	1.9-7.5	1.4-5.6	4.5-5.5
	30-50	3.8-7.4	2.8-5.5	4.5-5.5
	50-65	1.2-12	0.9-5.9	4.5-5.5
20C:				
Ocilla---------------	0-30	1.9-7.5	1.4-5.6	4.5-5.5
	30-50	3.8-7.4	2.8-5.5	4.5-5.5
	50-65	1.2-12	0.9-5.9	4.5-5.5
21A:				
Pactolus-------------	0-14	1.6-7.5	1.2-5.6	4.0-5.5
	14-84	0.5-4.1	0.4-3.1	4.0-5.5
22A:				
Riverview------------	0-16	2.5-11	1.9-8.1	4.5-6.5
	16-37	7.4-14	5.6-11	4.5-6.0
	37-56	5.3-14	4.0-11	4.5-6.0
	56-84	2.5-8.6	1.9-6.4	4.5-6.0
23A:				
Roanoke--------------	0-9	3.6-11	2.7-8.4	4.0-5.5
	9-50	8.8-16	6.6-12	4.0-5.5
	50-72	1.2-14	0.9-10	4.0-6.5

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
24B:				
Rumford	0-11	1.6-5.2	1.2-3.9	3.6-6.5
	11-46	2.0-7.4	1.5-5.5	3.6-7.3
	46-70	0.5-5.6	0.4-4.2	3.6-6.5
Kenansville	0-22	1.9-7.0	1.4-5.2	4.5-6.0
	22-39	1.2-5.0	0.9-3.7	4.5-6.0
	39-70	0.2-3.0	0.2-2.2	4.5-6.0
Uchee	0-24	1.2-9.2	0.9-6.9	4.5-5.5
	24-45	2.0-8.6	1.5-6.5	4.5-5.5
	45-50	3.8-11	2.8-8.3	4.5-5.5
	50-65	1.2-9.9	0.9-7.4	4.5-5.5
24C:				
Rumford	0-11	1.6-5.2	1.2-3.9	3.6-6.5
	11-46	2.0-7.4	1.5-5.5	3.6-7.3
	46-70	0.5-5.6	0.4-4.2	3.6-6.5
Kenansville	0-22	1.9-7.0	1.4-5.2	4.5-6.0
	22-39	1.2-5.0	0.9-3.7	4.5-6.0
	39-70	0.2-3.0	0.2-2.2	4.5-6.0
Uchee	0-24	1.2-9.2	0.9-6.9	4.5-5.5
	24-45	2.0-8.6	1.5-6.5	4.5-5.5
	45-50	3.8-11	2.8-8.3	4.5-5.5
	50-65	1.2-9.9	0.9-7.4	4.5-5.5
25A:				
Seabrook	0-8	1.6-7.5	1.2-5.6	4.0-6.5
	8-32	0.5-4.1	0.4-3.1	4.0-6.5
	32-60	0.5-3.6	0.4-2.7	4.0-6.5
26A:				
Slagle	0-15	3.1-9.0	2.3-6.8	3.5-7.3
	15-24	3.0-9.9	2.2-7.4	3.5-5.5
	24-50	4.5-11	3.4-8.3	3.5-5.5
	50-72	1.2-9.1	0.9-6.8	3.5-5.5
26B:				
Slagle	0-15	3.1-9.0	2.3-6.8	3.5-7.3
	15-24	3.0-9.9	2.2-7.4	3.5-5.5
	24-50	4.5-11	3.4-8.3	3.5-5.5
	50-72	1.2-9.1	0.9-6.8	3.5-5.5
26C:				
Slagle	0-15	3.1-9.0	2.3-6.8	3.5-7.3
	15-24	3.0-9.9	2.2-7.4	3.5-5.5
	24-50	4.5-11	3.4-8.3	3.5-5.5
	50-72	1.2-9.1	0.9-6.8	3.5-5.5
27A:				
State	0-10	2.4-8.2	1.8-6.2	4.0-7.3
	10-56	4.5-9.6	3.4-7.2	4.0-5.5
	56-84	0.5-4.3	0.4-3.2	4.0-6.5
27B:				
State	0-10	2.4-8.2	1.8-6.2	4.0-7.3
	10-56	4.5-9.6	3.4-7.2	4.0-5.5
	56-84	0.5-4.3	0.4-3.2	4.0-6.5

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation-exchange capacity	Effective cation-exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
28B:				
Tarboro--------------	0-8	1.9-5.2	1.4-3.9	5.1-6.5
	8-84	0.5-2.3	0.4-1.7	5.1-6.5
29A:				
Tomotley-------------	0-12	3.5-18	2.6-14	4.0-5.5
	12-48	5.6-11	4.2-8.2	4.0-5.5
	48-60	3.8-11	2.8-8.3	4.0-6.0
	60-84	0.5-12	0.4-8.9	4.0-6.0
30B:				
Uchee----------------	0-24	1.2-9.2	0.9-6.9	4.5-5.5
	24-45	2.0-8.6	1.5-6.5	4.5-5.5
	45-50	3.8-11	2.8-8.3	4.5-5.5
	50-65	1.2-9.9	0.9-7.4	4.5-5.5
30C:				
Uchee----------------	0-24	1.2-9.2	0.9-6.9	4.5-5.5
	24-45	2.0-8.6	1.5-6.5	4.5-5.5
	45-50	3.8-11	2.8-8.3	4.5-5.5
	50-65	1.2-9.9	0.9-7.4	4.5-5.5
30D:				
Uchee----------------	0-24	1.2-9.2	0.9-6.9	4.5-5.5
	24-45	2.0-8.6	1.5-6.5	4.5-5.5
	45-50	3.8-11	2.8-8.3	4.5-5.5
	50-65	1.2-9.9	0.9-7.4	4.5-5.5
31.				
Udorthents				
32A.				
Urban land-Udorthents				
33F:				
Winton---------------	0-14	3.6-16	2.7-12	3.5-6.0
	14-35	6.3-13	4.7-10	3.5-6.0
	35-56	0.7-15	0.5-11	3.5-6.0
	56-72	0.7-15	0.5-11	3.5-6.0
34A:				
Yemassee-------------	0-15	3.6-14	2.7-10	4.0-6.5
	15-40	4.5-13	3.4-9.9	4.0-5.5
	40-60	3.0-11	2.2-8.3	4.0-5.5
W.				
Water				

Table 19.—Water Features

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
1B:										
Alaga	A	Very low	Jan-Dec	---	---	---	---	None	---	None
2A:										
Altavista	B	Low	Jan-Apr	1.5-2.5	>6.0	---	---	None	---	Rare
			May-Nov	---	---	---	---	None	---	Rare
			Dec	1.5-2.5	>6.0	---	---	None	---	Rare
2B:										
Altavista	B	Low	Jan-Apr	1.5-2.5	>6.0	---	---	None	---	Rare
			May-Nov	---	---	---	---	None	---	Rare
			Dec	1.5-2.5	>6.0	---	---	None	---	Rare
3A:										
Augusta	C	Very high	Jan-May	1.0-2.0	>6.0	---	---	None	---	Rare
			Jun-Nov	---	---	---	---	None	---	Rare
			Dec	1.0-2.0	>6.0	---	---	None	---	Rare
4A:										
Bibb	D	Very high	Jan-Jun	0.0-1.0	>6.0	---	---	None	Brief	Frequent
			Jul-Oct	---	---	---	---	None	---	---
			Nov-Dec	0.0-1.0	>6.0	---	---	None	Brief	Frequent
5B:										
Bojac	B	Very low	Jan-Apr	4.0-6.6	>6.0	---	---	None	---	Very rare
			May-Oct	---	---	---	---	None	---	Very rare
			Nov-Dec	4.0-6.6	>6.0	---	---	None	---	Very rare
6A:										
Buncombe	A	Very low	Jan-Jun	---	---	---	---	None	Very brief	Occasional
			Jul-Dec	---	---	---	---	None	---	---
7A:										
Chastain	D	Very high	Jan-Jun	0.0-1.0	>6.0	---	---	None	Very long	Frequent
			Jul-Oct	---	---	---	---	None	---	---
			Nov-Dec	0.0-1.0	>6.0	---	---	None	Very long	Frequent
8A:										
Chastain	D	Negligible	Jan-May	0	>6.0	0.0-3.0	Long	Frequent	Very long	Frequent
			Jun	0.0-6.6	>6.0	0.0-3.0	Long	Frequent	Very long	Frequent
			Jul-Oct	0.0-6.6	>6.0	0.0-3.0	Long	Frequent	---	---
			Nov-Dec	0	>6.0	0.0-3.0	Long	Frequent	Very long	Frequent

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
9A:										
Chewacla	C	Very high	Jan-Apr	0.5-2.0	>6.0	---	---	None	Long	Frequent
			May-Oct	---	---	---	---	None	---	---
			Nov-Dec	0.5-2.0	>6.0	---	---	None	Long	Frequent
10A:										
Craven	C	Low	Jan-Apr	2.0-3.0	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	2.0-3.0	>6.0	---	---	None	---	None
10B:										
Craven	C	Low	Jan-Apr	2.0-3.0	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	2.0-3.0	>6.0	---	---	None	---	None
10C:										
Craven	C	Medium	Jan-Apr	2.0-3.0	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	2.0-3.0	>6.0	---	---	None	---	None
11B:										
Craven	C	Low	Jan-Apr	2.0-3.0	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	2.0-3.0	>6.0	---	---	None	---	None
11C:										
Craven	C	Medium	Jan-Apr	2.0-3.0	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	2.0-3.0	>6.0	---	---	None	---	None
12A:										
Dorovan	D	Negligible	Jan-Dec	0	>6.0	0.0-1.0	Long	Frequent	Very long	Frequent
13A:										
Emporia	C	Low	Jan-Apr	3.0-4.5	4.0-6.6	---	---	None	---	None
			May-Oct	---	---	---	---	None	---	None
			Nov-Dec	3.0-4.5	4.0-6.6	---	---	None	---	None
13B:										
Emporia	C	Low	Jan-Apr	3.0-4.5	4.0-6.6	---	---	None	---	None
			May-Oct	---	---	---	---	None	---	None
			Nov-Dec	3.0-4.5	4.0-6.6	---	---	None	---	None
13C:										
Emporia	C	Medium	Jan-Apr	3.0-4.5	4.0-6.6	---	---	None	---	None
			May-Oct	---	---	---	---	None	---	None
			Nov-Dec	3.0-4.5	4.0-6.6	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
14A:										
Exum	C	Low	Jan-Apr	2.0-3.0	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	2.0-3.0	>6.0	---	---	None	---	None
15A:										
Munden	B	Very low	Jan-Apr	1.5-2.5	>6.0	---	---	None	---	Rare
			May-Nov	---	---	---	---	None	---	Rare
			Dec	1.5-2.5	>6.0	---	---	None	---	Rare
15B:										
Munden	B	Very low	Jan-Apr	1.5-2.5	>6.0	---	---	None	---	Rare
			May-Nov	---	---	---	---	None	---	Rare
			Dec	1.5-2.5	>6.0	---	---	None	---	Rare
16A:										
Myatt	D	Very high	Jan-Apr	0.0-1.0	>6.0	---	---	None	---	None
			May-Oct	---	---	---	---	None	---	None
			Nov-Dec	0.0-1.0	>6.0	---	---	None	---	None
17A:										
Nansemond	C	Very low	Jan-Apr	1.5-2.5	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	1.5-2.5	>6.0	---	---	None	---	None
17B:										
Nansemond	C	Very low	Jan-Apr	1.5-2.5	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	1.5-2.5	>6.0	---	---	None	---	None
18F:										
Nevarc	C	Very high	Jan-Apr	1.5-3.0	2.5-6.6	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	1.5-3.0	2.5-6.6	---	---	None	---	None
Remlik	A	Medium	Jan-Apr	4.0-6.0	5.0-6.6	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	4.0-6.0	5.0-6.6	---	---	None	---	None
19A:										
Nimmo	D	Very high	Jan-Apr	0.0-1.0	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	0.0-1.0	>6.0	---	---	None	---	None
20B:										
Ocilla	B	Low	Jan-Mar	1.0-2.5	>6.0	---	---	None	---	None
			Apr-Nov	---	---	---	---	None	---	None
			Dec	1.0-2.5	>6.0	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
20C:										
Ocilla	B	Medium	Jan-Mar	1.0-2.5	>6.0	---	---	None	---	None
			Apr-Nov	---	---	---	---	None	---	None
			Dec	1.0-2.5	>6.0	---	---	None	---	None
21A:										
Pactolus	A	Very low	Jan-Apr	1.5-3.0	>6.0	---	---	None	---	Rare
			May-Nov	---	---	---	---	None	---	Rare
			Dec	1.5-3.0	>6.0	---	---	None	---	Rare
22A:										
Riverview	B	Low	Jan-Mar	3.0-5.0	>6.0	---	---	None	Brief	Frequent
			Apr-Nov	---	---	---	---	None	---	---
			Dec	3.0-5.0	>6.0	---	---	None	Brief	Frequent
23A:										
Roanoke	D	Very high	Jan-May	0.0-1.0	>6.0	---	---	None	Brief	Occasional
			Jun-Oct	---	---	---	---	None	---	---
			Nov-Dec	0.0-1.0	>6.0	---	---	None	Brief	Occasional
24B:										
Rumford	B	Very low	Jan-Dec	---	---	---	---	None	---	None
Kenansville	A	Very low	Jan-Apr	4.0-6.0	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	4.0-6.0	>6.0	---	---	None	---	None
Uchee	A	Low	Jan-Apr	3.5-5.0	4.5-6.6	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	3.5-5.0	4.5-6.6	---	---	None	---	None
24C:										
Rumford	B	Low	Jan-Dec	---	---	---	---	None	---	None
Kenansville	A	Low	Jan-Apr	4.0-6.0	>6.0	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	4.0-6.0	>6.0	---	---	None	---	None
Uchee	A	Medium	Jan-Apr	3.5-5.0	4.5-6.6	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	3.5-5.0	4.5-6.6	---	---	None	---	None
25A:										
Seabrook	C	Very low	Jan-Mar	2.0-3.5	>6.0	---	---	None	---	None
			Apr-Nov	---	---	---	---	None	---	None
			Dec	2.0-3.5	>6.0	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
26A:										
Slagle	C	Low	Jan-Apr	1.5-3.0	2.5-6.6	---	---	None	---	None
			May-Oct	---	---	---	---	None	---	None
			Nov-Dec	1.5-3.0	2.5-6.6	---	---	None	---	None
26B:										
Slagle	C	Low	Jan-Apr	1.5-3.0	2.5-6.6	---	---	None	---	None
			May-Oct	---	---	---	---	None	---	None
			Nov-Dec	1.5-3.0	2.5-6.6	---	---	None	---	None
26C:										
Slagle	C	Medium	Jan-Apr	1.5-3.0	2.5-6.6	---	---	None	---	None
			May-Oct	---	---	---	---	None	---	None
			Nov-Dec	1.5-3.0	2.5-6.6	---	---	None	---	None
27A:										
State	B	Low	Jan-Jun	4.0-6.6	>6.0	---	---	None	---	Very rare
			Jul-Nov	---	---	---	---	None	---	Very rare
			Dec	4.0-6.6	>6.0	---	---	None	---	Very rare
27B:										
State	B	Low	Jan-Jun	4.0-6.6	>6.0	---	---	None	---	Very rare
			Jul-Nov	---	---	---	---	None	---	Very rare
			Dec	4.0-6.6	>6.0	---	---	None	---	Very rare
28B:										
Tarboro	A	Very low	Jan-Dec	---	---	---	---	None	---	None
29A:										
Tomotley	B/D	Very high	Jan-Apr	0.0-1.0	>6.0	---	---	None	---	Rare
			May-Oct	---	---	---	---	None	---	Rare
			Nov-Dec	0.0-1.0	>6.0	---	---	None	---	Rare
30B:										
Uchee	A	Low	Jan-Apr	3.5-5.0	4.5-6.6	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	3.5-5.0	4.5-6.6	---	---	None	---	None
30C:										
Uchee	A	Medium	Jan-Apr	3.5-5.0	4.5-6.6	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	3.5-5.0	4.5-6.6	---	---	None	---	None
30D:										
Uchee	A	Medium	Jan-Apr	3.5-5.0	4.5-6.6	---	---	None	---	None
			May-Nov	---	---	---	---	None	---	None
			Dec	3.5-5.0	4.5-6.6	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
31.										
Udorthents										
32A:										
Urban land-Udorthents										
33F:										
Winton	C	High	Jan-May	2.0-3.5	3.0-5.0	---	---	None	---	None
			Jun-Nov	---	---	---	---	None	---	None
			Dec	2.0-3.5	3.0-5.0	---	---	None	---	None
34A:										
Yemassee	C	Very high	Jan-Apr	1.0-1.5	>6.0	---	---	None	---	None
			May	1.5-6.6	>6.0	---	---	None	---	None
			Jun-Oct	---	---	---	---	None	---	None
			Nov	1.5-6.6	>6.0	---	---	None	---	None
			Dec	1.0-1.5	>6.0	---	---	None	---	None
W.										
Water										

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	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
1B:			
Alaga	None	Low	Moderate
2A:			
Altavista	None	Moderate	Moderate
2B:			
Altavista	None	Moderate	Moderate
3A:			
Augusta	None	High	Moderate
4A:			
Bibb	None	High	Moderate
5B:			
Bojac	None	Low	High
6A:			
Buncombe	None	Low	Moderate
7A:			
Chastain, frequently flooded	None	High	High
8A:			
Chastain, ponded	None	High	High
9A:			
Chewacla	None	High	Moderate
10A:			
Craven	None	High	High
10B:			
Craven	None	High	High
10C:			
Craven	None	High	High
11B:			
Craven	None	High	High
11C:			
Craven	None	High	High
12A:			
Dorovan	---	High	High
13A:			
Emporia	None	Moderate	High
13B:			
Emporia	None	Moderate	High

Table 20.—Soil Features—Continued

Map symbol and soil name	Potential for frost action	Risk of corrosion	
		Uncoated steel	Concrete
13C:			
Emporia	None	Moderate	High
14A:			
Exum	None	Moderate	High
15A:			
Munden	None	Low	High
15B:			
Munden	None	Low	High
16A:			
Myatt	None	High	High
17A:			
Nansemond	None	Moderate	High
17B:			
Nansemond	None	Moderate	High
18F:			
Nevarc	None	High	High
Remlik	None	Low	Moderate
19A:			
Nimmo	None	Low	High
20B:			
Ocilla	None	Moderate	High
20C:			
Ocilla	None	Moderate	High
21A:			
Pactolus	None	Low	High
22A:			
Riverview	None	Low	Moderate
23A:			
Roanoke	None	High	High
24B:			
Rumford	None	Low	Moderate
Kenansville	None	Low	High
Uchee	None	Low	High
24C:			
Rumford	None	Low	High
Kenansville	None	Low	High
Uchee	None	Low	High
25A:			
Seabrook	None	Low	Moderate

Table 20.—Soil Features—Continued

Map symbol and soil name	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
26A:			
Slagle-----------------	None	High	High
26B:			
Slagle-----------------	None	High	High
26C:			
Slagle-----------------	None	High	High
27A:			
State------------------	None	Moderate	High
27B:			
State------------------	None	Moderate	High
28B:			
Tarboro----------------	None	Low	Moderate
29A:			
Tomotley---------------	None	High	High
30B:			
Uchee------------------	None	Low	High
30C:			
Uchee------------------	None	Low	High
30D:			
Uchee------------------	None	Low	High
31.			
Udorthents			
32A.			
Urban land-Udorthents			
33F:			
Winton-----------------	None	Moderate	Moderate
34A:			
Yemassee---------------	None	High	High
W.			
Water			

Table 21.—Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series)

Soil name	Family or higher taxonomic class
Alaga	Thermic, coated Typic Quartzipsamments
Altavista	Fine-loamy, mixed, semiactive, thermic Aquic Hapludults
Augusta	Fine-loamy, mixed, semiactive, thermic Aeric Endoaquults
Bibb	Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents
Bojac	Coarse-loamy, mixed, semiactive, thermic Typic Hapludults
Buncombe	Mixed, thermic Typic Udipsamments
Chastain	Fine, mixed, semiactive, acid, thermic Fluvaquentic Endoaquepts
Chewacla	Fine-loamy, mixed, active, thermic Fluvaquentic Dystrudepts
Craven	Fine, mixed, subactive, thermic Aquic Hapludults
Dorovan	Dysic, thermic Typic Haplosaprists
Emporia	Fine-loamy, siliceous, subactive, thermic Typic Hapludults
Exum	Fine-silty, siliceous, subactive, thermic Aquic Paleudults
Kenansville	Loamy, siliceous, subactive, thermic Arenic Hapludults
Munden	Coarse-loamy, mixed, semiactive, thermic Aquic Hapludults
Myatt	Fine-loamy, siliceous, active, thermic Typic Endoaquults
Nansemond	Coarse-loamy, siliceous, subactive, thermic Aquic Hapludults
Nevarc	Fine, mixed, subactive, thermic Aquic Hapludults
Nimmo	Coarse-loamy, mixed, semiactive, thermic Typic Endoaquults
*Ocilla	Loamy, siliceous, semiactive, thermic Aquic Arenic Hapludults
Pactolus	Thermic, coated Aquic Quartzipsamments
Remlik	Loamy, siliceous, subactive, thermic Arenic Hapludults
Riverview	Fine-loamy, mixed, active, thermic Oxyaquic Dystrudepts
Roanoke	Fine, mixed, semiactive, thermic Typic Endoaquults
Rumford	Coarse-loamy, siliceous, subactive, thermic Typic Hapludults
Seabrook	Mixed, thermic Aquic Udipsamments
Slagle	Fine-loamy, siliceous, subactive, thermic Aquic Hapludults
State	Fine-loamy, mixed, semiactive, thermic Typic Hapludults
Tarboro	Mixed, thermic Typic Udipsamments
Tomotley	Fine-loamy, mixed, semiactive, thermic Typic Endoaquults
Uchee	Loamy, kaolinitic, thermic Arenic Kanhapludults
Udorthents	Udorthents
Winton	Fine-loamy, mixed, semiactive, thermic Aquic Hapludults
Yemassee	Fine-loamy, siliceous, semiactive, thermic Aeric Endoaquults

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