United States Department of Agriculture

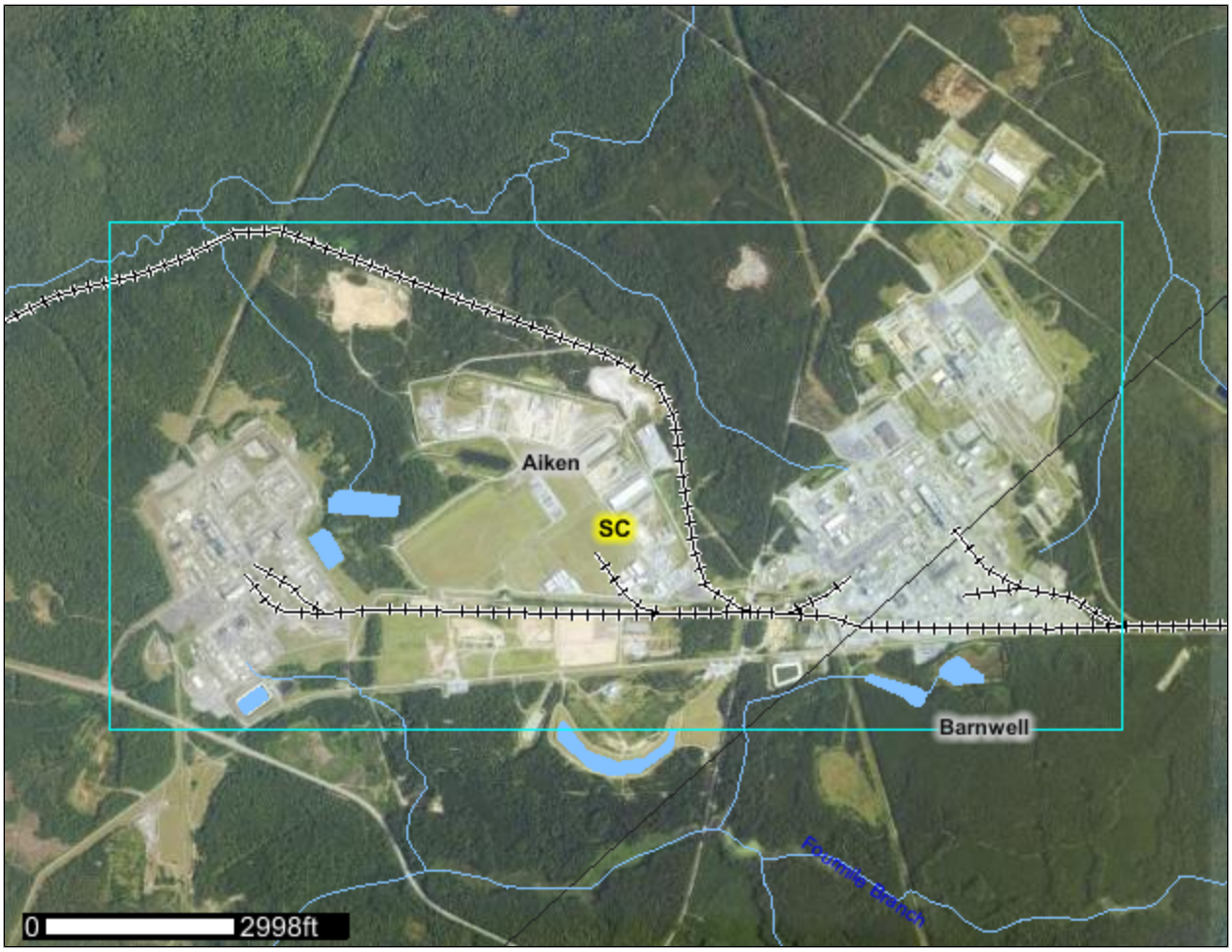
Natural Resources Conservation Service

A product 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 participants

Custom Soil Resource Report for

Savannah River Plant Area

E-, F-, H-, and S- Areas



October 11, 2010

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is 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.

The National Cooperative Soil Survey is 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 (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various 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 observed and described many soil profiles. A soil profile 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 or from the surface down to bedrock. 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, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a 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.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

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.

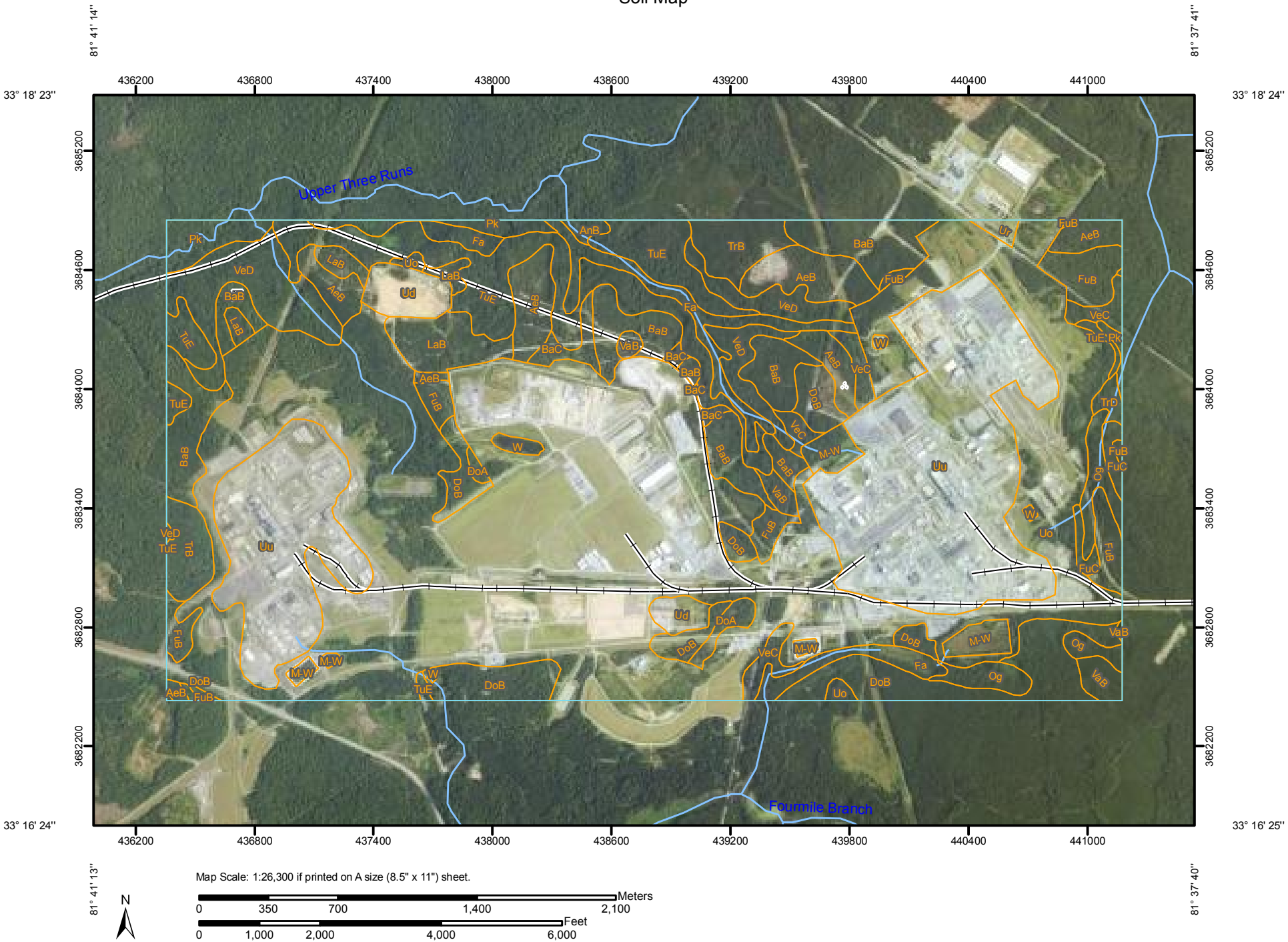
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree 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.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features

- Gully
- Short Steep Slope
- Other

Political Features

- Cities

Water Features

- Oceans
- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:26,300 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Savannah River Plant Area
Survey Area Data: Version 9, Jul 20, 2009

Date(s) aerial images were photographed: 8/22/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Savannah River Plant Area (SC696)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
AeB	Ailey sand, 2 to 6 percent slopes, wet substratum	103.6	3.6%
AnB	Albany loamy sand, 0 to 6 percent slopes	4.4	0.2%
BaB	Blanton sand, 0 to 6 percent slopes	152.7	5.3%
BaC	Blanton sand, 6 to 10 percent slopes	15.4	0.5%
DoA	Dothan sand, 0 to 2 percent slopes	10.9	0.4%
DoB	Dothan sand, 2 to 6 percent slopes	149.8	5.2%
Fa	Fluvaquents, frequently flooded	68.1	2.4%
FuB	Fuquay sand, 2 to 6 percent slopes	64.7	2.2%
FuC	Fuquay sand, 6 to 10 percent slopes	11.1	0.4%
LaB	Lakeland sand, 0 to 6 percent slopes	48.9	1.7%
M-W	Miscellaneous-Water	30.0	1.0%
Og	Ogeechee sandy loam, ponded	36.6	1.3%
Pk	Pickney sand, frequently flooded	37.8	1.3%
TrB	Troup sand, 0 to 6 percent slopes	52.0	1.8%
TrD	Troup sand, 10 to 15 percent slopes	5.8	0.2%
TuE	Troup and Lucy sands, 15 to 25 percent slopes	171.4	5.9%
Ud	Udorthents, firm substratum	35.6	1.2%
Uo	Udorthents, friable substratum	1,222.3	42.4%
Ur	Udorthents-Urban land complex, gently sloping	4.4	0.2%
Uu	Urban land	488.2	16.9%
VaB	Vaucluse sandy loam, 2 to 6 percent slopes	20.1	0.7%
VeC	Vaucluse-Ailey complex, 6 to 10 percent slopes	33.0	1.1%
VeD	Vaucluse-Ailey complex, 10 to 15 percent slopes	110.9	3.8%
W	Water	6.7	0.2%
Totals for Area of Interest		**2,884.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

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. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. 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 important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, 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. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and

relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 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. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Savannah River Plant Area

AeB—Ailey sand, 2 to 6 percent slopes, wet substratum

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Ailey and similar soils: 100 percent

Description of Ailey

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability (nonirrigated): 3s

Typical profile

0 to 3 inches: Sand
3 to 23 inches: Sand
23 to 30 inches: Sandy clay loam
30 to 72 inches: Sandy clay loam

AnB—Albany loamy sand, 0 to 6 percent slopes

Map Unit Setting

Elevation: 0 to 450 feet
Mean annual precipitation: 40 to 60 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 310 days

Map Unit Composition

Albany and similar soils: 90 percent
Minor components: 4 percent

Description of Albany

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy marine deposits

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 21 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.2 inches)

Interpretive groups

Land capability (nonirrigated): 3e

Typical profile

0 to 7 inches: Fine sand
7 to 54 inches: Fine sand
54 to 59 inches: Sandy loam
59 to 79 inches: Sandy clay loam

Minor Components

Pickney

Percent of map unit: 2 percent
Landform: Depressions, flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear

Williman

Percent of map unit: 2 percent
Landform: Depressions, marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex
Across-slope shape: Concave, convex

BaB—Blanton sand, 0 to 6 percent slopes

Map Unit Setting

Elevation: 50 to 250 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 59 to 70 degrees F
Frost-free period: 240 to 285 days

Map Unit Composition

Blanton and similar soils: 100 percent

Description of Blanton

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy marine deposits

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: About 48 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.5 inches)

Interpretive groups

Land capability (nonirrigated): 3s

Typical profile

0 to 5 inches: Sand
5 to 54 inches: Sand
54 to 74 inches: Sandy clay loam
74 to 80 inches: Sandy clay loam

BaC—Blanton sand, 6 to 10 percent slopes

Map Unit Setting

Elevation: 50 to 250 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 240 to 285 days

Map Unit Composition

Blanton and similar soils: 100 percent

Description of Blanton

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy marine deposits

Properties and qualities

Slope: 6 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: About 48 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.5 inches)

Interpretive groups

Land capability (nonirrigated): 4s

Typical profile

0 to 5 inches: Sand
5 to 54 inches: Sand
54 to 74 inches: Sandy clay loam
74 to 80 inches: Sandy clay loam

DoA—Dothan sand, 0 to 2 percent slopes

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Dothan and similar soils: 100 percent

Description of Dothan

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 36 to 60 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.6 inches)

Interpretive groups

Land capability (nonirrigated): 1

Typical profile

0 to 8 inches: Loamy sand
8 to 11 inches: Loamy sand
11 to 31 inches: Sandy clay loam
31 to 80 inches: Sandy clay loam

DoB—Dothan sand, 2 to 6 percent slopes

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Dothan and similar soils: 100 percent

Description of Dothan

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy marine deposits

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 36 to 60 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.6 inches)

Interpretive groups

Land capability (nonirrigated): 2e

Typical profile

0 to 8 inches: Loamy sand
8 to 11 inches: Loamy sand
11 to 31 inches: Sandy clay loam
31 to 80 inches: Sandy clay loam

Fa—Fluvaquents, frequently flooded

Map Unit Setting

Elevation: 0 to 110 feet
Mean annual precipitation: 45 to 52 inches
Mean annual air temperature: 64 to 70 degrees F
Frost-free period: 240 to 280 days

Map Unit Composition

Fluvaquents and similar soils: 100 percent

Description of Fluvaquents

Setting

Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey alluvium

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 6 to 30 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 4 inches: Loamy sand
4 to 80 inches: Sand

FuB—Fuquay sand, 2 to 6 percent slopes

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Fuquay and similar soils: 100 percent

Description of Fuquay

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 48 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.5 inches)

Interpretive groups

Land capability (nonirrigated): 2s

Typical profile

0 to 8 inches: Sand
8 to 21 inches: Loamy sand
21 to 35 inches: Sandy clay loam
35 to 70 inches: Sandy clay loam

FuC—Fuquay sand, 6 to 10 percent slopes

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Fuquay and similar soils: 100 percent

Description of Fuquay

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities

Slope: 6 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 48 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.5 inches)

Interpretive groups

Land capability (nonirrigated): 3s

Typical profile

0 to 8 inches: Sand
8 to 21 inches: Loamy sand
21 to 35 inches: Sandy clay loam
35 to 70 inches: Sandy clay loam

LaB—Lakeland sand, 0 to 6 percent slopes

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Lakeland and similar soils: 100 percent

Description of Lakeland

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy marine deposits

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability (nonirrigated): 4s

Typical profile

0 to 66 inches: Sand
66 to 80 inches: Sand

M-W—Miscellaneous-Water

Map Unit Setting

Elevation: 70 to 420 feet
Mean annual precipitation: 44 to 55 inches
Mean annual air temperature: 61 to 70 degrees F
Frost-free period: 225 to 250 days

Map Unit Composition

Miscellaneous water: 100 percent

Description of Miscellaneous Water

Setting

Landform: Lakes

Og—Ogeechee sandy loam, ponded

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Ogeechee and similar soils: 100 percent

Description of Ogeechee

Setting

Landform: Depressions, marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex
Across-slope shape: Concave, convex
Parent material: Loamy marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.7 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 8 inches: Sandy loam
8 to 15 inches: Loamy fine sand
15 to 45 inches: Sandy clay loam
45 to 65 inches: Sandy loam

Pk—Pickney sand, frequently flooded

Map Unit Setting

Elevation: 30 to 270 feet
Mean annual precipitation: 50 to 60 inches
Mean annual air temperature: 64 to 70 degrees F
Frost-free period: 230 to 310 days

Map Unit Composition

Pickney and similar soils: 100 percent

Description of Pickney

Setting

Landform: Depressions, flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Parent material: Sandy fluviomarine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water capacity: Low (about 4.5 inches)

Interpretive groups
Land capability (nonirrigated): 7w

Typical profile
0 to 35 inches: Loamy sand
35 to 80 inches: Loamy sand

TrB—Troup sand, 0 to 6 percent slopes

Map Unit Setting
Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition
Troup and similar soils: 90 percent

Description of Troup

Setting
Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities
Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.8 inches)

Interpretive groups
Land capability (nonirrigated): 3s

Typical profile
0 to 2 inches: Sand
2 to 60 inches: Sand
60 to 80 inches: Sandy clay loam

TrD—Troup sand, 10 to 15 percent slopes

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Troup and similar soils: 60 percent
Lucy and similar soils: 35 percent

Description of Troup

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities

Slope: 10 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.8 inches)

Interpretive groups

Land capability (nonirrigated): 7s

Typical profile

0 to 2 inches: Sand
2 to 60 inches: Sand
60 to 80 inches: Sandy clay loam

Description of Lucy

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy and/or sandy marine deposits

Properties and qualities

Slope: 10 to 15 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.4 inches)

Interpretive groups
Land capability (nonirrigated): 4s

Typical profile
0 to 9 inches: Sand
9 to 26 inches: Sand
26 to 31 inches: Sandy loam
31 to 70 inches: Sandy clay loam

TuE—Troup and Lucy sands, 15 to 25 percent slopes

Map Unit Setting
Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition
Troup and similar soils: 60 percent
Lucy and similar soils: 40 percent

Description of Troup

Setting
Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities
Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.8 inches)

Interpretive groups
Land capability (nonirrigated): 7s

Typical profile

0 to 2 inches: Sand
2 to 60 inches: Sand
60 to 80 inches: Sandy clay loam

Description of Lucy

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy and/or sandy marine deposits

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.4 inches)

Interpretive groups

Land capability (nonirrigated): 4s

Typical profile

0 to 9 inches: Sand
9 to 26 inches: Sand
26 to 31 inches: Sandy loam
31 to 70 inches: Sandy clay loam

Ud—Udorthents, firm substratum

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Udorthents and similar soils: 100 percent

Description of Udorthents

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex

Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities

Slope: 2 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.4 inches)

Interpretive groups

Land capability (nonirrigated): 4e

Typical profile

0 to 60 inches: Sandy clay loam

Uo—Udorthents, friable substratum

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Udorthents and similar soils: 100 percent

Description of Udorthents

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.2 inches)

Interpretive groups

Land capability (nonirrigated): 4e

Typical profile

0 to 60 inches: Sandy loam

Ur—Udorthents-Urban land complex, gently sloping

Map Unit Setting

Elevation: 70 to 450 feet
Mean annual precipitation: 44 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 250 days

Map Unit Composition

Udorthents and similar soils: 60 percent
Urban land: 40 percent

Description of Udorthents

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.2 inches)

Interpretive groups

Land capability (nonirrigated): 4e

Typical profile

0 to 60 inches: Sandy loam

Description of Urban Land

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: 10 inches to

Interpretive groups

Land capability (nonirrigated): 8s

Uu—Urban land

Map Unit Setting

Elevation: 70 to 420 feet
Mean annual precipitation: 44 to 55 inches
Mean annual air temperature: 61 to 70 degrees F
Frost-free period: 225 to 250 days

Map Unit Composition

Urban land: 100 percent

Description of Urban Land

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: 10 inches to

Interpretive groups

Land capability (nonirrigated): 8s

VaB—Vaucluse sandy loam, 2 to 6 percent slopes

Map Unit Setting

Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition

Vaucluse and similar soils: 100 percent

Description of Vaucluse

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy marine deposits

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.57 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.4 inches)

Interpretive groups
Land capability (nonirrigated): 3s

Typical profile
0 to 3 inches: Loamy sand
3 to 10 inches: Loamy sand
10 to 22 inches: Sandy clay loam
22 to 60 inches: Sandy clay loam
60 to 74 inches: Loamy sand

VeC—Vaucluse-Ailey complex, 6 to 10 percent slopes

Map Unit Setting
Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition
Vaucluse and similar soils: 55 percent
Ailey and similar soils: 45 percent

Description of Vaucluse

Setting
Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy marine deposits

Properties and qualities
Slope: 6 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.4 inches)

Interpretive groups
Land capability (nonirrigated): 3e

Typical profile
0 to 3 inches: Loamy sand
3 to 10 inches: Loamy sand

10 to 22 inches: Sandy clay loam
22 to 60 inches: Sandy clay loam
60 to 74 inches: Loamy sand

Description of Ailey

Setting
Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities
Slope: 6 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.1 inches)

Interpretive groups
Land capability (nonirrigated): 3s

Typical profile
0 to 3 inches: Sand
3 to 23 inches: Sand
23 to 30 inches: Sandy clay loam
30 to 72 inches: Sandy clay loam

VeD—Vaucluse-Ailey complex, 10 to 15 percent slopes

Map Unit Setting
Elevation: 250 to 450 feet
Mean annual precipitation: 45 to 57 inches
Mean annual air temperature: 50 to 77 degrees F
Frost-free period: 210 to 243 days

Map Unit Composition
Vaucluse and similar soils: 65 percent
Ailey and similar soils: 35 percent

Description of Vaucluse

Setting
Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex

Across-slope shape: Convex
Parent material: Loamy marine deposits

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.4 inches)

Interpretive groups

Land capability (nonirrigated): 6e

Typical profile

0 to 3 inches: Loamy sand
3 to 10 inches: Loamy sand
10 to 22 inches: Sandy clay loam
22 to 60 inches: Sandy clay loam
60 to 74 inches: Loamy sand

Description of Ailey

Setting

Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and/or loamy marine deposits

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability (nonirrigated): 4s

Typical profile

0 to 3 inches: Sand
3 to 23 inches: Sand
23 to 30 inches: Sandy clay loam
30 to 72 inches: Sandy clay loam

W—Water

Map Unit Setting

Elevation: 70 to 420 feet
Mean annual precipitation: 44 to 55 inches
Mean annual air temperature: 61 to 70 degrees F
Frost-free period: 225 to 250 days

Map Unit Composition

Water: 100 percent

Description of Water

Setting

Landform: Lakes

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