

Map Unit Description

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 in this report, 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*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. 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, 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.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description

Water Conservation Area, Florida

2—Dania muck

Map Unit Setting

Elevation: 10 to 30 feet

Mean annual precipitation: 48 to 56 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 358 to 365 days

Map Unit Composition

Dania and similar soils: 95 percent

Minor components: 5 percent

Description of Dania

Setting

Landform: Depressions on marine terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear, concave
Across-slope shape: Convex, concave
Parent material: Herbaceous organic material over limestone

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 7 to 20 inches to lithic bedrock
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Very low (about 3.0 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7w
Hydrologic Soil Group: A/D
Other vegetative classification: Organic soils in depressions and on flood plains (G156AC645FL)

Typical profile

0 to 12 inches: Muck
12 to 16 inches: Bedrock

Minor Components

Jupiter

Percent of map unit: 5 percent
Landform: Rises on marine terraces
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Convex
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G156AC145FL)

3—Jupiter and Plantation soils, 0 to 2 percent slopes, occasionally ponded

Map Unit Setting

Elevation: 10 to 30 feet

Mean annual precipitation: 48 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 358 to 365 days

Map Unit Composition

Plantation and similar soils: 50 percent
Jupiter and similar soils: 50 percent

Description of Jupiter

Setting

Landform: Rises on marine terraces
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Sandy marine deposits over limestone

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Very low (about 2.2 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 4w
Hydrologic Soil Group: A/D
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G156AC145FL)

Typical profile

0 to 11 inches: Mucky fine sand
11 to 14 inches: Fine sand
14 to 18 inches: Bedrock

Description of Plantation

Setting

Landform: Depressions on marine terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Herbaceous organic material over sandy marine deposits over limestone

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water capacity: Low (about 5.7 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 7w

Hydrologic Soil Group: A/D

Other vegetative classification: Organic soils in depressions and on flood plains (G156AC645FL), Unnamed (G156AU850FL)

Typical profile

0 to 10 inches: Muck

10 to 16 inches: Fine sand

16 to 35 inches: Fine sandy loam

35 to 39 inches: Bedrock

4—Lauderhill muck**Map Unit Setting**

Elevation: 10 to 30 feet

Mean annual precipitation: 48 to 56 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 358 to 365 days

Map Unit Composition

Lauderhill and similar soils: 100 percent

Description of Lauderhill**Setting**

Landform: Depressions on marine terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Talf, dip

Down-slope shape: Linear, concave

Across-slope shape: Convex, concave

Parent material: Herbaceous organic material over limestone

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: 16 to 36 inches to lithic bedrock

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Moderate (about 6.0 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7w
Hydrologic Soil Group: A/D
Other vegetative classification: Organic soils in depressions and on flood plains (G156AC645FL)

Typical profile

0 to 24 inches: Muck
24 to 28 inches: Bedrock

5—Okeelanta muck, limestone substratum

Map Unit Setting

Elevation: 10 to 30 feet
Mean annual precipitation: 48 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 358 to 365 days

Map Unit Composition

Okeelanta, limestone substratum, and similar soils: 100 percent

Description of Okeelanta, Limestone Substratum

Setting

Landform: Depressions on marine terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Herbaceous organic material over sandy marine deposits over limestone

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 52 to 80 inches to lithic bedrock
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0

Available water capacity: Very high (about 15.1 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 7w

Hydrologic Soil Group: A/D

Other vegetative classification: Organic soils in depressions and on flood plains (G156AC645FL)

Typical profile

0 to 47 inches: Muck

47 to 75 inches: Fine sand

75 to 79 inches: Bedrock

6—Pahokee muck, subaqueous

Map Unit Setting

Elevation: 10 to 30 feet

Mean annual precipitation: 48 to 56 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 358 to 365 days

Map Unit Composition

Pahokee, subaqueous, and similar soils: 100 percent

Description of Pahokee, Subaqueous

Setting

Landform: Depressions on marine terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Herbaceous organic material over limestone

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: 36 to 50 inches to lithic bedrock

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water capacity: High (about 9.7 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 7w

Hydrologic Soil Group: A/D

Other vegetative classification: Forage suitability group not assigned
(G156AC999FL)

Typical profile

0 to 42 inches: Muck
42 to 50 inches: Bedrock

7—Pahokee muck**Map Unit Setting**

Elevation: 10 to 30 feet
Mean annual precipitation: 48 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 358 to 365 days

Map Unit Composition

Pahokee and similar soils: 100 percent

Description of Pahokee**Setting**

Landform: Depressions on marine terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Herbaceous organic material over limestone

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 36 to 50 inches to lithic bedrock
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: High (about 10.6 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7w
Hydrologic Soil Group: A/D
Other vegetative classification: Organic soils in depressions and on flood plains (G156AC645FL)

Typical profile

0 to 46 inches: Muck
46 to 50 inches: Bedrock

8—Terra Ceia muck

Map Unit Setting

Elevation: 10 to 30 feet

Mean annual precipitation: 48 to 56 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 358 to 365 days

Map Unit Composition

Terra ceia and similar soils: 100 percent

Description of Terra Ceia

Setting

Landform: Depressions on marine terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Herbaceous organic material

Properties and qualities

Slope: 0 to 1 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: None

Frequency of ponding: Frequent

Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water capacity: Very high (about 23.9 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 7w

Hydrologic Soil Group: A/D

Other vegetative classification: Organic soils in depressions and on flood plains (G156AC645FL)

Typical profile

0 to 80 inches: Muck

9—Terra Ceia muck, limestone substratum

Map Unit Setting

Elevation: 10 to 30 feet

Mean annual precipitation: 48 to 56 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 358 to 365 days

Map Unit Composition

Terra ceia, limestone substratum, and similar soils: 100 percent

Description of Terra Ceia, Limestone Substratum**Setting**

Landform: Depressions on marine terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Herbaceous organic material over limestone

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: 52 to 80 inches to lithic bedrock

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water capacity: Very high (about 23.9 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 7w

Hydrologic Soil Group: A/D

Other vegetative classification: Organic soils in depressions and on flood plains (G156AC645FL)

Typical profile

0 to 65 inches: Muck

65 to 69 inches: Bedrock

10—Dania muck, very shallow**Map Unit Setting**

Elevation: 10 to 30 feet

Mean annual precipitation: 48 to 56 inches

Mean annual air temperature: 70 to 77 degrees F

Frost-free period: 358 to 365 days

Map Unit Composition

Dania, very shallow, and similar soils: 100 percent

Description of Dania, Very Shallow**Setting**

Landform: Depressions on marine terraces

Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Herbaceous organic material over limestone

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 4 to 8 inches to lithic bedrock
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Very low (about 1.5 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7w
Hydrologic Soil Group: A/D
Other vegetative classification: Organic soils in depressions and on flood plains (G156AC645FL)

Typical profile

0 to 6 inches: Muck
6 to 7 inches: Bedrock

11—Terra Ceia muck, occasionally ponded

Map Unit Setting

Elevation: 10 to 30 feet
Mean annual precipitation: 48 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 358 to 365 days

Map Unit Composition

Terra ceia, occasionally ponded, and similar soils: 100 percent

Description of Terra Ceia, Occasionally Ponded

Setting

Landform: Depressions on marine terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip, tal
Down-slope shape: Concave, linear
Across-slope shape: Concave, convex
Parent material: Herbaceous organic material

Properties and qualities

Slope: 0 to 1 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: None
Frequency of ponding: Occasional
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Very high (about 23.9 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7w
Hydrologic Soil Group: A/D
Other vegetative classification: Organic soils in depressions and on flood plains (G156AC645FL)

Typical profile

0 to 80 inches: Muck

89—Water-Udorthents complex, 0 to 35 percent slopes

Map Unit Setting

Elevation: 10 to 30 feet
Mean annual precipitation: 48 to 56 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 358 to 365 days

Map Unit Composition

Water: 55 percent
Udorthents and similar soils: 45 percent

Description of Water

Interpretive groups

Farmland classification: Not prime farmland
Other vegetative classification: Forage suitability group not assigned (G156AC999FL)

Description of Udorthents

Setting

Landform: Marine terraces
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Altered marine deposits

Properties and qualities

Slope: 0 to 35 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Well 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
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Very low (about 2.4 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7s
Hydrologic Soil Group: A
Other vegetative classification: Forage suitability group not assigned (G156AC999FL), Unnamed (G156AU900FL)

Typical profile

0 to 7 inches: Gravelly sand
7 to 57 inches: Gravelly sand
57 to 80 inches: Gravelly sand

NOTCOM—No Digital Data Available**Map Unit Composition**

Notcom: 100 percent

Description of Notcom**Properties and qualities****Data Source Information**

Soil Survey Area: Water Conservation Area, Florida
Survey Area Data: Version 2, Dec 12, 2013