

Hydric Soils

This table lists the map unit components 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 Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

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 criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

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- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
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Report—Hydric Soils

Hydric Soils--Charlotte County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
2--Canaveral fine sand				
	Captiva	3	Drainageways on marine terraces	2
	Kesson, tidal	2	Tidal marshes on marine terraces	2
4--Canaveral-Urban land complex				
	Captiva	10	Drainageways on marine terraces	2
5--Captiva fine sand				
	Captiva	92	Drainageways on marine terraces	2
	Kesson, tidal	4	Tidal marshes on marine terraces	2
6--Hallandale fine sand				
	Hallandale	90	Flats on marine terraces	2
	Boca	5	Drainageways on marine terraces	2
8--Hallandale fine sand, tidal				
	Hallandale, tidal	90	Tidal marshes on marine terraces	2
9--EauGallie sand, 0 to 2 percent slopes				
	Delray	5	— error in exists on —	2
	Felda	2	— error in exists on —	2
10--Pompano fine sand, 0 to 2 percent slopes				
	Pompano	85	Drainageways on marine terraces	2
	Valkaria	5	Drainageways on marine terraces	2
	Anclote	5	Depressions on marine terraces	2, 3
	Malabar	3	Drainageways on marine terraces	2
	Basinger	2	Drainageways on marine terraces	2
11--Myakka fine sand, 0 to 2 percent slopes				
	Basinger	5	Drainageways on marine terraces	2
	Placid, depressional	1	Depressions on marine terraces	2, 3
12--Felda fine sand, 0 to 2 percent slopes				
	Felda	90	Drainageways, flatwoods, marine terraces	2

Hydric Soils--Charlotte County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
13—Boca fine sand, 0 to 2 percent slopes				
	Boca	85	— error in exists on —	2
	Hallandale	7	Drainageways on marine terraces	2
14—Valkaria fine sand, 0 to 2 percent slopes				
	Valkaria	85	Drainageways on flatwoods on marine terraces	2
	Malabar	4	Drainageways on flatwoods on marine terraces	2
	Pineda	4	Drainageways on flatwoods on marine terraces	2
15—Estero muck				
	Estero, tidal	96	Tidal marshes on marine terraces	2
	Hallandale, tidal	4	Tidal marshes on marine terraces	2
16—Peckish mucky fine sand				
	Peckish, tidal	88	Tidal marshes on marine terraces	2
	Hallandale, tidal	4	Tidal marshes on marine terraces	2
	Boca, tidal	4	Tidal marshes on marine terraces	2
	Estero, tidal	4	Tidal marshes on marine terraces	2
17—Daytona sand				
	Pompano	2	Drainageways on marine terraces	2
18—Matlacha gravelly fine sand, limestone substratum				
	Boca	9	Drainageways on marine terraces	2
	Hallandale	8	Flats on marine terraces	2
19—Gator muck				
	Gator	85	Depressions on marine terraces	1, 3
	Terra ceia	15	Marshes on marine terraces	1, 3
20—Terra Ceia muck				
	Terra ceia, drained	85	Marshes on marine terraces	1, 3
	Gator, drained	15	Depressions on marine terraces	1, 3

Hydric Soils--Charlotte County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
23—Wulfert muck				
	Wulfert, tidal	90	Tidal marshes on marine terraces	1
	Kesson, tidal	10	Tidal marshes on marine terraces	2
24—Kesson fine sand				
	Kesson, tidal	88	Tidal marshes on marine terraces	2
	Wulfert, tidal	6	Tidal marshes on marine terraces	1
	Captiva	6	Drainageways on marine terraces	2
25—St. Augustine, organic substratum-Urban land complex				
	Kesson, tidal	10	Tidal marshes on marine terraces	2
26—Pineda fine sand, 0 to 2 percent slopes				
	Pineda	93	Flats, drainageways	2
	Boca	4	Drainageways on marine terraces	2
	Hallandale	3	Drainageways on marine terraces	2
27—Pompano fine sand, depressional				
	Pompano	92	Depressions on marine terraces	2, 3
	Anclote	2	Depressions on marine terraces	2, 3
	Malabar	2	Depressions on marine terraces	2, 3
	Myakka	2	Depressions on marine terraces	2, 3
	Valkaria	2	Depressions on marine terraces	2, 3
28—Immokalee sand, 0 to 2 percent slopes				
	Basinger	6	Drainageways on marine terraces	2
	Valkaria	2	Drainageways on marine terraces	2
	Felda	2	Drainageways on marine terraces	2
33—Oldsmar sand, 0 to 2 percent slopes				
	Basinger	4	Drainageways on marine terraces	2

Hydric Soils--Charlotte County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
34—Malabar fine sand, 0 to 2 percent slopes				
	Malabar	85	— error in exists on —	2
	Basinger	6	— error in exists on —	2
	Valkaria	5	— error in exists on —	2
	Pompano	3	— error in exists on —	2
	Delray	1	— error in exists on —	2
35—Wabasso sand, 0 to 2 percent slopes				
	Hallandale	6	Drainageways on marine terraces	2
	Boca	5	Drainageways on marine terraces	2
36—Immokalee-Urban land complex				
	Pompano	3	Drainageways on marine terraces	2
37—Satellite fine sand, 0 to 2 percent slopes				
	Basinger	3	Drainageways on marine terraces	2
	Pompano	1	Flats on marine terraces, drainageways on marine terraces	2
38—Isles fine sand, slough				
	Isles	83	Drainageways on marine terraces	2
	Malabar	4	Drainageways on marine terraces	2
	Boca	4	Drainageways on marine terraces	2
	Pineda	3	Drainageways on marine terraces	2
39—Isles fine sand, depressional				
	Isles	80	Depressions on marine terraces	2, 3
	Pompano	5	Drainageways on marine terraces	2
	Pineda	5	Drainageways on marine terraces	2
	Felda	5	Depressions on marine terraces	2, 3
	Malabar	5	Depressions on marine terraces	2, 3

Hydric Soils--Charlotte County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
40—Anclote sand, depressional				
	Anclote	88	Depressions on marine terraces	2, 3
	Pompano	6	Depressions on marine terraces	2, 3
	Floridana	6	Depressions on marine terraces	2, 3
41—Valkaria fine sand, depressional				
	Valkaria	93	Depressions on marine terraces	2, 3
	Anclote	3	Depressions on marine terraces	2, 3
	Pompano	2	Depressions on marine terraces	2, 3
	Malabar	2	Depressions on marine terraces	2, 3
42—Wabasso sand, limestone substratum				
	Boca	4	Drainageways on marine terraces	2
43—Smyrna fine sand, 0 to 2 percent slopes				
	Basinger	5	Drainageways on marine terraces	2
	Pompano	1	Drainageways on flatwoods on marine terraces	2
44—Malabar fine sand, depressional, 0 to 1 percent slopes				
	Malabar, depressional	85	— error in exists on —	2, 3
	Basinger	6	— error in exists on —	2
	Valkaria	5	— error in exists on —	2
	Pompano	3	— error in exists on —	2
	Delray	1	— error in exists on —	2

Hydric Soils--Charlotte County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
45--Copeland sandy loam, depressional				
	Copeland	88	Depressions on marine terraces	2, 3
	Boca	2	Drainageways on marine terraces	2
	Anclote	2	Depressions on marine terraces	2, 3
	Felda	2	Depressions on marine terraces	2, 3
	Pompano	2	Depressions on marine terraces	2, 3
	Floridana	2	Depressions on marine terraces	2, 3
	Chobee	2	Depressions on marine terraces	2, 3
49--Felda fine sand, depressional				
	Felda	86	Depressions on marine terraces	2, 3
	Boca	2	Drainageways on marine terraces	2
	Anclote	2	Depressions on marine terraces	2, 3
	Pompano	2	Depressions on marine terraces	2, 3
	Malabar	2	Depressions on marine terraces	2, 3
	Floridana	2	Depressions on marine terraces	2, 3
	Pineda	2	Depressions on marine terraces	2, 3
	Winder	2	Depressions on marine terraces	2, 3
51--Floridana sand, depressional				
	Floridana	88	Depressions on marine terraces	2, 3
	Anclote	4	Depressions on marine terraces	2, 3
	Felda	4	Depressions on marine terraces	2, 3
	Winder	4	Depressions on marine terraces	2, 3

Hydric Soils--Charlotte County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
53—Myakka fine sand, depressional				
	Myakka	90	Depressions on marine terraces	2, 3
	Anclote	2	Depressions on marine terraces	2, 3
	Floridana	2	Depressions on marine terraces	2, 3
	Pompano	1	Depressions on marine terraces	2, 3
	Valkaria	1	Depressions on marine terraces	2, 3
55—Cocoa fine sand				
	Hallandale	7	Flats on marine terraces	2
56—Isles muck				
	Isles, tidal	85	Tidal marshes on marine terraces	2
	Kesson, tidal	5	Tidal marshes on marine terraces	2
	Wulfert, tidal	5	Tidal marshes on marine terraces	1
	Boca, tidal	5	Tidal marshes on marine terraces	2
57—Boca fine sand, tidal				
	Boca, tidal	85	Tidal marshes on marine terraces	2
	Hallandale, tidal	5	Tidal marshes on marine terraces	2
	Isles, tidal	5	Tidal marshes on marine terraces	2
59—Urban land				
	Hallandale	1	Flats on marine terraces	2
62—Winder sand, depressional				
	Winder	85	Depressions on marine terraces	2, 3
	Felda	4	Depressions on marine terraces	2, 3
	Copeland	4	Depressions on marine terraces	2, 3
	Hallandale	3	Drainageways on marine terraces	2
	Pineda	3	Depressions on marine terraces	2, 3

Hydric Soils--Charlotte County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
63—Malabar fine sand, high, 0 to 2 percent slopes				
	Basinger	6	— error in exists on —	2
	Valkaria	5	— error in exists on —	2
	Pompano	3	— error in exists on —	2
	Delray	1	— error in exists on —	2
67—Smyrna-Urban land complex				
	Pompano	1	Drainageways on marine terraces	2
70—Heights fine sand				
	Felda	7	Drainageways on marine terraces	2
72—Bradenton fine sand, 0 to 2 percent slopes				
	Bradenton	85	Flats on marine terraces, rises on marine terraces	2
	Felda	6	Drainageways on marine terraces	2
	Parkwood	3	Flats on marine terraces	2
	Copeland	1	Depressions on marine terraces	2, 3
73—Pineda fine sand, depressional, 0 to 1 percent slopes				
	Pineda, depressional	93	— error in exists on —	2, 3
	Boca	4	— error in exists on —	2
	Hallandale	3	Drainageways on marine terraces	2
74—Boca fine sand, slough				
	Boca	85	Drainageways on marine terraces	2
	Felda	3	Drainageways on marine terraces	2
	Pineda	3	Drainageways on marine terraces	2
	Hallandale	3	Drainageways on marine terraces	2
	Pompano	2	Drainageways on marine terraces	2
	Valkaria	2	Drainageways on marine terraces	2

Hydric Soils--Charlotte County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
75--Hallandale fine sand, slough				
	Hallandale	88	Drainageways on marine terraces	2
	Pineda	4	Drainageways on marine terraces	2
	Pompano	4	Drainageways on marine terraces	2
	Boca	4	Drainageways on marine terraces	2
76--Electra fine sand				
	Bradenton	4	Flats on marine terraces	2
77--Pineda fine sand, limestone substratum				
	Pineda	88	Drainageways on marine terraces	2
	Boca	4	Drainageways on marine terraces	2
	Hallandale	4	Drainageways on marine terraces	2
78--Chobee muck				
	Chobee	90	Depressions on marine terraces	2, 3
	Copeland	3	Depressions on marine terraces	2, 3
	Floridana	3	Depressions on marine terraces	2, 3
	Gator	2	Depressions on marine terraces	1, 3
	Winder	2	Depressions on marine terraces	2, 3

Data Source Information

Soil Survey Area: Charlotte County, Florida
 Survey Area Data: Version 11, Sep 9, 2014