

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:

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
- Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
- 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.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

Report—Hydric Soils

Hydric Soils--St. Lucie County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
1—Anclote sand, depressional				
	Anclote	85	Depressions on marine terraces	2, 3
	Basinger	8	Flats on marine terraces, drainageways on marine terraces	2
	Floridana	7	Depressions on marine terraces	2, 3
8—Basinger sand, 0 to 2 percent slopes				
	Basinger	85	Flats on marine terraces, drainageways on marine terraces	2
	Holopaw	6	Drainageways on marine terraces	2
	Malabar	5	Drainageways on marine terraces	2
	Pompano	3	Drainageways on marine terraces	2
	Anclote	1	Depressions on marine terraces	2, 3
10—Canaveral fine sand, 0 to 5 percent slopes				
	Pompano	5	Flats on marine terraces, drainageways on marine terraces	2
11—Chobee loamy sand, depressional				
	Chobee	85	Depressions on marine terraces	2, 3
	Floridana	4	Depressions on marine terraces	2, 3
	Kaliga	4	Depressions on marine terraces	1, 3
	Winder, shell substratum, hydric	3	Flats on marine terraces	2
13—Floridana sand, depressional				
	Floridana	88	Depressions on marine terraces	2, 3
	Pineda	4	Flats on marine terraces, drainageways on marine terraces	2
	Winder, depressional	4	Depressions on marine terraces	2, 3
	Riviera	4	Depressions on marine terraces	2, 3

Hydric Soils--St. Lucie County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
14—Fluvaquents, frequently flooded				
	Fluvaquents	85	Flood plains on marine terraces	2, 4
	Riviera	3	Flats on marine terraces	2
	Chobee	3	Depressions on marine terraces	2, 3
	Kaliga	3	Depressions on marine terraces	1, 3
	Pompano	3	Flats on marine terraces, drainageways on marine terraces	2
	Winder, depressional	3	Depressions on marine terraces	2, 3
15—Hallandale sand				
	Hilolo	5	Flats on marine terraces	2
	Winder, shell substratum, hydric	5	Flats on marine terraces	2
	Pople	5	Flats on marine terraces, drainageways on marine terraces	2
16—Hilolo loamy sand				
	Hilolo	80	Flats on marine terraces	2
	Riviera	4	Flats on marine terraces	2
	Pople	4	Flats on marine terraces, drainageways on marine terraces	2
	Pineda	4	Flats on marine terraces, drainageways on marine terraces	2
	Winder, shell substratum, hydric	4	Flats on marine terraces	2
18—Hontoon muck, depressional				
	Hontoon	80	Depressions on marine terraces	1, 3
	Kaliga	7	Depressions on marine terraces	1, 3
	Samsula	6	Depressions on marine terraces	1, 3

Hydric Soils--St. Lucie County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
20—Kaliga muck, 0 to 1 percent slopes				
	Kaliga	85	Depressions on flatwoods on marine terraces	1, 3
	Samsula	4	Depressions on flatwoods on marine terraces	1, 3
	Felda, depressional	4	Depressions on flatwoods on marine terraces	2, 3
	Tequesta	4	Depressions on flatwoods on marine terraces	2, 3
	Chobee	3	Depressions on flatwoods on marine terraces	2, 3
23—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
24—Myakka fine sand, 0 to 2 percent slopes				
	Basinger	5	Drainageways on marine terraces	2
	Placid, depressional	1	Depressions on marine terraces	2, 3
25—Nettles and Oldsmar sands				
	Pineda	4	Flats on marine terraces, drainageways on marine terraces	2
	Oldsmar	4	Depressions on marine terraces	2, 3
26—Oldsmar sand, depressional				
	Oldsmar	90	Depressions on marine terraces	2, 3
	Riviera	10	Depressions on marine terraces	2, 3
31—Pepper and EauGallie sands				
	Pineda	2	Flats on marine terraces, drainageways on marine terraces	2

Hydric Soils--St. Lucie County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
32—Pineda sand				
	Pineda	85	Flats on marine terraces, drainageways on marine terraces	2
	Winder, shell substratum, hydric	2	Flats on marine terraces	2
	Pople	2	Flats on marine terraces, drainageways on marine terraces	2
	Riviera	2	Flats on marine terraces	2
	Malabar	2	Flats on marine terraces, drainageways on marine terraces	2
	Winder, hydric	1	Flats on marine terraces	2
34—Pompano sand, 0 to 2 percent slopes				
	Pompano	80	Drainageways on flatwoods on marine terraces	2
	Holopaw	5	Drainageways on marine terraces	2
	Hallandale	5	Flatwoods on marine terraces	2
	Samsula	4	Depressions on marine terraces	1, 3
35—Kesson-Terra Ceia complex, tidal				
	Kesson, tidal	55	Tidal marshes on marine terraces	2
	Terra ceia, tidal	40	Tidal marshes on marine terraces	1
	Mckee, tidal	5	Tidal marshes on marine terraces	2
36—Pople sand				
	Pople	85	Flats on marine terraces, drainageways on marine terraces	2
	Hilolo	3	Flats on marine terraces	2
	Pineda	3	Flats on marine terraces, drainageways on marine terraces	2
	Winder, shell substratum, hydric	2	Flats on marine terraces	2
	Riviera	2	Flats on marine terraces	2
	Winder, hydric	2	Flats on marine terraces	2

Hydric Soils--St. Lucie County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
37—Riviera sand, depressional				
	Riviera	85	Depressions on marine terraces	2, 3
	Chobee	3	Depressions on marine terraces	2, 3
	Pineda	2	Flats on marine terraces, drainageways on marine terraces	2
	Floridana	2	Depressions on marine terraces	2, 3
	Winder, depressional	2	Depressions on marine terraces	2, 3
	Oldsmar	2	Depressions on marine terraces	2, 3
38—Riviera fine sand, 0 to 2 percent slopes				
	Riviera	80	Drainageways on marine terraces, flatwoods on marine terraces	2
	Floridana	2	Depressions on marine terraces	2, 3
40—Samsula muck, 0 to 1 percent slopes				
	Samsula	90	Depressions on marine terraces	1, 3
	Basinger, depressional	3	Depressions on marine terraces	2, 3
	Sanibel	3	Depressions on marine terraces	2, 3
	Anclote	2	Depressions on marine terraces	2, 3
	Kaliga	2	Depressions on marine terraces	1, 3
41—Satellite sand, 0 to 2 percent slopes				
	Basinger	3	Drainageways on marine terraces	2
	Pompano	1	Flats on marine terraces, drainageways on marine terraces	2
43—Susanna and Wauchula sands				
	Chobee	3	Depressions on marine terraces	2, 3
	Riviera	2	Flats on marine terraces	2
	Pineda	2	Flats on marine terraces, drainageways on marine terraces	2

Hydric Soils--St. Lucie County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
45—Terra Ceia muck, frequently flooded				
	Terra ceia, flooded	85	Flood plains on marine terraces	1, 3, 4
	Pompano	8	Flats on marine terraces, drainageways on marine terraces	2
46—Mckee sandy clay loam, tidal				
	Mckee, tidal	90	Tidal marshes on marine terraces	2
	Kesson, tidal	5	Tidal marshes on marine terraces	2
	Terra ceia, tidal	5	Tidal marshes on marine terraces	1
48—Wabasso sand, 0 to 2 percent slopes				
	Hallandale	6	Drainageways on marine terraces	2
	Boca	5	Drainageways on marine terraces	2
49—Wabasso fine sand, gravelly substratum				
	Hilolo	4	Flats on marine terraces	2
	Pople	4	Flats on marine terraces, drainageways on marine terraces	2
51—Waveland-Lawnwood complex, depressional				
	Waveland	55	Depressions on marine terraces	2, 3
	Lawnwood	40	Depressions on marine terraces	2, 3
54—Winder sand, depressional				
	Winder, depressional	90	Depressions on marine terraces	2, 3
	Floridana	2	Depressions on marine terraces	2, 3
	Chobee	2	Depressions on marine terraces	2, 3
	Winder, shell substratum, hydric	1	Flats on marine terraces	2
	Pineda	1	Flats on marine terraces, drainageways on marine terraces	2
	Riviera	1	Depressions on marine terraces	2, 3

Hydric Soils--St. Lucie County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
55--Winder loamy sand				
	Winder, hydric	15	Flats on marine terraces	2
	Pineda	3	Flats on marine terraces, drainageways on marine terraces	2
	Riviera	3	Flats on marine terraces	2
	Floridana	3	Depressions on marine terraces	2, 3
	Winder, shell substratum, hydric	2	Flats on marine terraces	2
56--Winder sand, shell substratum				
	Winder, shell substratum, hydric	17	Flats on marine terraces	2
	Hilolo	2	Flats on marine terraces	2
	Winder, hydric	2	Flats on marine terraces	2
	Pople	2	Flats on marine terraces, drainageways on marine terraces	2
	Pineda	2	Flats on marine terraces, drainageways on marine terraces	2
57--Oldsmar fine sand, 0 to 2 percent slopes				
	Pineda	5	Drainageways on marine terraces	2
	Holopaw	2	Drainageways on marine terraces	2
58--EauGallie fine sand, 0 to 2 percent slopes				
	Delray	5	-- error in exists on --	2
	Felda	2	-- error in exists on --	2
59--Kesson muck				
	Kesson, tidal	90	Tidal marshes on marine terraces	2
	Mckee, tidal	10	Tidal marshes on marine terraces	2

Data Source Information

Soil Survey Area: St. Lucie County, Florida
 Survey Area Data: Version 6, Sep 9, 2014