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.

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Report—Hydric Soils

Hydric Soils–Flagler County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
2—Riviera fine sand				
	Favoretta	3	Flats on marine terraces	2
3—Samsula and Hontoon soils, depressional				
	Samsula, depressional	60	Depressions on marine terraces	1, 3
	Hontoon, depressional	33	Depressions on marine terraces	1, 3
	Basinger, depressional	7	Depressions on marine terraces	2, 3
4—Wabasso fine sand				
	Malabar	5	Flats on marine terraces	2
5—Pineda-Wabasso complex				
	Winder	3	Flats on marine terraces	2
	Favoretta	3	Flats on marine terraces	2
6—Favoretta clay				
	Favoretta	95	Flats on marine terraces	2
	Favoretta, depressional	5	Flats on marine terraces	2, 3
7—Favoretta, Chobee, and Winder soils, frequently flooded				
	Favoretta	48	Flood plains on marine terraces	2, 4
	Chobee	28	Flood plains on marine terraces	2, 4
	Winder	21	Flood plains on marine terraces	2, 4
	Gator, depressional	2	Depressions on marine terraces	1, 3
	Pineda	1	Flats on marine terraces	2
8—Hicoria, Riviera, and Gator soils, depressional				
	Hicoria, depressional	41	Depressions on marine terraces	2, 3
	Riviera, depressional	25	Depressions on marine terraces	2, 3
	Gator, depressional	19	Depressions on marine terraces	1, 3
	Basinger, depressional	5	Depressions on marine terraces	2, 3
	Favoretta, depressional	5	Flats on marine terraces	2, 3

Hydric Soils–Flagler County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
9—EauGallie fine sand				
	Hicoria, depressional	3	Depressions on marine terraces	2, 3
	Riviera, depressional	2	Depressions on marine terraces	2, 3
10—Winder fine sand				
	Winder	93	Flats on marine terraces	2
	Favoretta, depressional	3	Flats on marine terraces	2
	Chobee	2	Flood plains on marine terraces	2, 4
	Pineda	2	Flats on marine terraces	2
11—Myakka-Myakka, wet, fine sands, 0 to 2 percent slopes				
	Myakka, wet	15	Flatwoods on marine terraces	2
	Basinger	5	Drainageways on marine terraces	2
	Placid, depressional	1	Depressions on marine terraces	2, 3
12—Placid, Basinger, and St. Johns soils, depressional				
	Placid, depressional	42	Depressions on marine terraces	2, 3
	Basinger, depressional	28	Depressions on marine terraces	2, 3
	St. johns, depressional	27	Depressions on marine terraces	2, 3
	Hontoon, depressional	2	Depressions on marine terraces	1, 3
	Samsula, depressional	1	Depressions on marine terraces	1, 3
13—Immokalee fine sand				
	St. johns, depressional	3	Depressions on marine terraces	2, 3
	Basinger, depressional	2	Depressions on marine terraces	2, 3
14—Pineda fine sand				
	Pineda	95	Flats on marine terraces	2
	Winder	2	Flats on marine terraces	2

Hydric Soils–Flagler County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
16—Malabar fine sand				
	Malabar	83	Flats on marine terraces	2
	Valkaria	4	Flats on marine terraces	2
	Hicoria, depressional	3	Depressions on marine terraces	2, 3
	Basinger, depressional	3	Depressions on marine terraces	2, 3
17—Holopaw fine sand, 0 to 2 percent slopes				
	Holopaw	85	— error in exists on —	2
	Basinger	6	Drainageways on marine terraces	2
	Boca	3	— error in exists on —	2
	Riviera	1	Depressions on marine terraces	2, 3
18—Valkaria-Smyrna complex				
	Valkaria	50	Drainageways on marine terraces	2
	Basinger, depressional	9	Depressions on marine terraces	2, 3
19—Valkaria fine sand				
	Valkaria	90	Flats on marine terraces	2
	Pineda	4	Flats on marine terraces	2
21—Smyrna fine sand, 0 to 2 percent slopes				
	Placid, hydric	1	Depressions on marine terraces	2, 3
24—Samsula and Placid soils, frequently flooded				
	Samsula, frequently flooded	70	Flood plains on marine terraces	1, 4
	Placid, frequently flooded	23	Flood plains on marine terraces	2, 4
	St. johns, depressional	7	Depressions on marine terraces	2, 3
26—Turnbull and Pellicer soils, tidal				
	Turnbull	52	Tidal marshes on marine terraces	2, 3
	Pellicer	43	Tidal marshes on marine terraces	2
30—Pits				
	Aquents	30	Depressions on marine terraces	2, 3

Hydric Soils–Flagler County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
34—Cocoa-Bulow complex, 0 to 5 percent slopes				
	Placid, depressional	2	Depressions on marine terraces	2, 3
36—Bimini sand				
	Placid, depressional	4	Depressions on marine terraces	2, 3
37—Tuscawilla fine sand				
	Tuscawilla, hydric	23	Flats on marine terraces	2
40—Pomona fine sand				
	Basinger, depressional	3	Depressions on marine terraces	2, 3
	Riviera, depressional	2	Depressions on marine terraces	2, 3
41—Terra Ceia muck, frequently flooded				
	Terra ceia, frequently flooded	90	Flood plains on marine terraces	1, 4
	Favoretta	5	Flood plains on marine terraces	2, 4
	Placid, depressional	5	Depressions on marine terraces	2, 3

Data Source Information

Soil Survey Area: Flagler County, Florida
Survey Area Data: Version 11, Sep 15, 2014