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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Report—Hydric Soils

Hydric Soils–Martin County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
2—Lawnwood and Myakka fine sands				
	Basinger	7	Drainageways on marine terraces	2
	Placid	7	Depressions on marine terraces	2, 3
4—Waveland and Immokalee fine sands				
	Basinger	4	Drainageways on marine terraces	2
	Placid	3	Depressions on marine terraces	2, 3
5—Waveland and Lawnwood fine sands, depressional				
	Lawnwood	40	Depressions on marine terraces	2, 3
	Waveland	40	Depressions on marine terraces	2, 3
	Basinger	7	Drainageways on marine terraces	2
	Placid	6	Depressions on marine terraces	2, 3
13—Placid and Basinger fine sands, depressional				
	Placid	45	Depressions on marine terraces	2, 3
	Basinger	40	Depressions on marine terraces	2, 3
	Sanibel	7	Depressions on marine terraces	2, 3
16—Oldsmar fine sand, 0 to 2 percent slopes				
	Pineda	5	Drainageways on marine terraces	2
	Holopaw	2	Drainageways on marine terraces	2
17—Wabasso sand, 0 to 2 percent slopes				
	Hallandale	6	Drainageways on marine terraces	2
	Boca	5	Drainageways on marine terraces	2

Hydric Soils–Martin County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
19—Winder sand, depressional				
	Winder	80	Depressions on marine terraces	2, 3
	Riviera	4	Drainageways on marine terraces	2
	Floridana	4	Depressions on marine terraces	2, 3
	Gator	4	Depressions on marine terraces	1, 3
	Chobee	4	Depressions on marine terraces	2, 3
21—Pineda and Riviera fine sands				
	Pineda	45	Drainageways on marine terraces	2
	Riviera	40	Drainageways on marine terraces	2
	Boca, hydric	3	Flats on marine terraces	2
22—Okeelanta muck, 0 to 1 percent slopes				
	Okeelanta	90	Depressions on marine terraces	1, 3
	Astor, depressional	3	Depressions on marine terraces	2, 3
	Sanibel	3	Depressions on marine terraces	2, 3
	Tequesta	2	Depressions on marine terraces	2
	Floridana, depressional	2	Depressions on marine terraces	2, 3
30—Bessie muck				
	Bessie, tidal	85	Tidal marshes on marine terraces	1
	Durbin, tidal	5	— error in exists on —	1
	Wulfert, tidal	5	Tidal marshes on marine terraces	1
35—Salerno sand				
	Basinger	4	Drainageways on marine terraces	2

Hydric Soils–Martin County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
38—Floridana fine sand, depressional				
	Floridana	85	Depressions on marine terraces	2, 3
	Riviera	4	Drainageways on marine terraces	2
	Tequesta	4	Depressions on marine terraces	2, 3
	Chobee	4	Depressions on marine terraces	2, 3
	Winder	3	Depressions on marine terraces	2, 3
40—Sanibel muck				
	Sanibel	85	Depressions on marine terraces	2, 3
	Basinger	4	Depressions on marine terraces	2, 3
	Placid	4	Depressions on marine terraces	2, 3
	Okeelanta	4	Depressions on marine terraces	1, 3
	Samsula	3	Depressions on marine terraces	1, 3
42—Hallandale sand				
	Hallandale, hydric	70	Flats on marine terraces	2
	Pineda	3	Drainageways on marine terraces	2
	Riviera	3	Drainageways on marine terraces	2
	Jupiter, hydric	3	Drainageways on marine terraces	2
44—Boca fine sand				
	Boca, hydric	15	Flats on marine terraces	2
	Pineda	3	Drainageways on marine terraces	2
	Riviera	3	Drainageways on marine terraces	2
	Hallandale, hydric	3	Flats on marine terraces	2
47—Pinellas fine sand				
	Riviera	5	Drainageways on marine terraces	2
	Pineda	5	Drainageways on marine terraces	2

Hydric Soils–Martin County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
48—Jupiter sand				
	Jupiter, hydric	20	Drainageways on marine terraces	2
	Hallandale, hydric	4	Flats on marine terraces	2
	Floridana	4	Depressions on marine terraces	2, 3
	Chobee	4	Depressions on marine terraces	2, 3
	Canova variant, drained	4	Depressions on marine terraces	2
49—Riviera fine sand, depressional				
	Riviera	80	Depressions on marine terraces	2, 3
	Chobee	4	Depressions on marine terraces	2, 3
	Floridana	4	Depressions on marine terraces	2, 3
	Pineda	3	Drainageways on marine terraces	2
	Holopaw	3	Drainageways on marine terraces	2
	Winder	3	Depressions on marine terraces	2, 3
50—Wulfert and Durbin mucks, tidal				
	Wulfert, tidal	45	Tidal marshes on marine terraces	1
	Durbin, tidal	40	— error in exists on —	1
	Bessie, tidal	5	Tidal marshes on marine terraces	1
	Kesson, tidal	5	Tidal marshes on marine terraces	2
52—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
55—Basinger fine sand, 0 to 2 percent slopes				
	Basinger	90	Drainageways	2
	Margate	3	Drainageways on marine terraces	2
	Placid, depressional	3	Depressions on marine terraces	2, 3

Hydric Soils–Martin County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
56—Wabasso and Oldsmar fine sands, depressional				
	Wabasso	45	Depressions on marine terraces	2, 3
	Oldsmar	40	Depressions on marine terraces	2, 3
	Floridana	4	Depressions on marine terraces	2, 3
	Riviera	4	Depressions on marine terraces	2, 3
	Tequesta	4	Depressions on marine terraces	2, 3
	Winder	3	Depressions on marine terraces	2, 3
57—Chobee loamy sand, depressional				
	Chobee	85	Depressions on marine terraces	2, 3
	Tequesta	3	Depressions on marine terraces	2, 3
	Riviera	3	Depressions on marine terraces	2, 3
	Floridana	3	Depressions on marine terraces	2, 3
	Gator	3	Depressions on marine terraces	1, 3
	Winder	3	Depressions on marine terraces	2, 3
58—Gator and Tequesta mucks				
	Gator	50	Depressions on marine terraces	1, 3
	Tequesta	40	Depressions on marine terraces	2, 3
	Chobee	5	Depressions on marine terraces	2, 3
	Floridana	5	Depressions on marine terraces	2, 3
63—Nettles sand				
	Basinger	5	Drainageways on marine terraces	2

Hydric Soils–Martin County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
66—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
67—Kesson sand, tidal				
	Kesson, tidal	80	Tidal marshes on marine terraces	2
	Durbin, tidal	5	— error in exists on —	1
	Wulfert, tidal	5	Tidal marshes on marine terraces	1
	Bessie, tidal	5	Tidal marshes on marine terraces	1
69—Hontoon muck				
	Hontoon	90	Swamps on marine terraces	1, 3
	Basinger	3	Drainageways on marine terraces	2
	Placid	3	Depressions on marine terraces	2, 3
	Sanibel	2	Depressions on marine terraces	2, 3
	Samsula	2	Depressions on marine terraces	1, 3
70—Canova muck, moderately deep, drained				
	Canova, moderately deep, drained	80	Depressions on marine terraces	2
	Jupiter, hydric	5	Drainageways on marine terraces	2
	Tequesta	5	Depressions on marine terraces	2, 3
	Floridana	5	Depressions on marine terraces	2, 3
	Okeelanta	5	Depressions on marine terraces	1, 3

Hydric Soils–Martin County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
73—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
	Kaliga	2	Depressions on marine terraces	1, 3
	Anclote	2	Depressions on marine terraces	2, 3

Data Source Information

Soil Survey Area: Martin County, Florida
Survey Area Data: Version 12, Sep 9, 2014