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–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
7—Astor fine sand				
	Astor, frequently flooded	85	Flood plains on marine terraces	2, 4
	Eaugallie, hydric	3	Flats on marine terraces	2
	Gator	3	Flood plains on marine terraces	1, 3, 4
	Basinger, depressional	3	Depressions on marine terraces	2, 3
	Pompano, hydric	2	Drainageways on marine terraces	2
	Myakka, hydric	2	Flats on marine terraces	2
	Riviera, hydric	2	Flats on marine terraces	2
8—Basinger fine sand, depressional				
	Basinger, depressional	80	Depressions on marine terraces	2, 3
	Immokalee, depressional	4	Depressions on marine terraces, drainageways on marine terraces	2, 3
	Myakka, depressional	4	Depressions on marine terraces	2, 3
	Smyrna, hydric	3	Flats on marine terraces	2
	Placid	3	Depressions on marine terraces	2, 3
	Valkaria	3	Flats on marine terraces	2
	Pompano, depressional	3	Depressions on marine terraces	2, 3
10—Bluff sandy clay loam				
	Bluff	80	Stream terraces on flood plains on marine terraces	2, 4
	Gator	7	Flood plains on marine terraces	1, 3, 4
	Chobee, frequently flooded	7	Flood plains on marine terraces, flats on marine terraces, drainageways on marine terraces	2, 4
	Holopaw, hydric	6	Flats on marine terraces	2
14—Chobee fine sandy loam				
	Chobee, frequently flooded	75	Flood plains on marine terraces, flats on marine terraces, drainageways on marine terraces	2, 4
	Tequesta	15	Depressions on marine terraces	2, 3
	Tuscawilla	10	Flats on marine terraces	2

Hydric Soils–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
20—EauGallie fine sand				
	Eaugallie, hydric	10	Flats on marine terraces	2
21—EauGallie fine sand, depressional				
	Eaugallie, depressional	75	Depressions on marine terraces, drainageways on marine terraces	2, 3
	Wabasso, depressional	5	Depressions on marine terraces	2, 3
	Wauchula, depressional	5	Depressions on marine terraces	2, 3
	Pomona, depressional	5	Drainageways on marine terraces, depressions on marine terraces	2, 3
	Malabar, hydric	5	Flats on marine terraces	2
	Pineda, hydric	5	Flats on drainageways on marine terraces	2
23—Farmton fine sand				
	Farmton, hydric	10	Flats on marine terraces	2
	Basinger, depressional	4	Depressions on marine terraces	2, 3
24—Fluvaquents				
	Fluvaquents	80	Flood plains on marine terraces	2, 4
	Samsula	4	Depressions on marine terraces	1, 3
	Bluff	4	Stream terraces on flood plains on marine terraces	2, 4
	Basinger, depressional	4	Depressions on marine terraces	2, 3
	Chobee, frequently flooded	4	Flood plains on marine terraces, flats on marine terraces, drainageways on marine terraces	2, 4
	Gator	4	Flood plains on marine terraces	1, 3, 4

Hydric Soils–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
25—Gator muck				
	Gator	80	Flood plains on marine terraces	1, 3, 4
	Holopaw, hydric	3	Flats on marine terraces	2
	Tequesta	3	Depressions on marine terraces	2, 3
	Terra ceia	3	Depressions on marine terraces	1, 3
	St. johns, hydric	3	Flats on marine terraces	2
	Pompano, hydric	3	Drainageways on marine terraces	2
	Placid	3	Depressions on marine terraces	2, 3
	Tomoka	2	Depressions on marine terraces	1, 3
26—Holopaw sand				
	Holopaw, hydric	5	Flats on marine terraces	2
	Malabar, hydric	3	Flats on marine terraces	2
27—Hontoon mucky peat				
	Hontoon	75	Depressions on marine terraces	1, 3
	Myakka, depressional	5	Depressions on marine terraces	2, 3
	Samsula	4	Depressions on marine terraces	1, 3
	St. johns, hydric	4	Flats on marine terraces	2
	Placid	4	Depressions on marine terraces	2, 3
	Pompano, hydric	4	Drainageways on marine terraces	2
	Pompano, depressional	4	Depressions on marine terraces	2, 3
28—Hydraquents				
	Hydraquents, tidal	85	Tidal marshes on marine terraces	2
29—Immokalee sand				
	Immokalee, hydric	10	Flats on marine terraces	2
	Placid	4	Depressions on marine terraces	2, 3
	Basinger, depressional	4	Depressions on marine terraces	2, 3
	St. johns, hydric	3	Flats on marine terraces	2

Hydric Soils–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
30—Immokalee sand, depressional				
	Immokalee, depressional	80	Depressions on marine terraces, drainageways on marine terraces	2, 3
	Placid	4	Depressions on marine terraces	2, 3
	St. johns, hydric	4	Flats on marine terraces	2
	Basinger, depressional	4	Depressions on marine terraces	2, 3
	Pompano, depressional	4	Depressions on marine terraces	2, 3
	Myakka, depressional	4	Depressions on marine terraces	2, 3
31—Malabar fine sand				
	Malabar, hydric	80	Flats on marine terraces	2
	Holopaw, hydric	3	Flats on marine terraces	2
	Pineda, hydric	3	Flats on drainageways on marine terraces	2
	Basinger, depressional	3	Depressions on marine terraces	2, 3
	Pompano, hydric	2	Drainageways on marine terraces	2
	Valkaria	2	Flats on marine terraces	2
	Riviera, hydric	2	Flats on marine terraces	2
32—Myakka fine sand				
	Myakka, hydric	5	Flats on marine terraces	2
	St. johns, hydric	3	Flats on marine terraces	2
	Myakka, depressional	3	Depressions on marine terraces	2, 3
	Basinger, depressional	3	Depressions on marine terraces	2, 3
33—Myakka fine sand, depressional				
	Myakka, depressional	85	Depressions on marine terraces	2, 3
	St. johns, hydric	3	Flats on marine terraces	2
	Basinger, depressional	3	Depressions on marine terraces	2, 3
	Pompano, depressional	3	Depressions on marine terraces	2, 3
	Placid	3	Depressions on marine terraces	2, 3

Hydric Soils–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
34—Myakka-St. Johns complex				
	Myakka, depressional	60	Depressions on marine terraces	2, 3
	St. johns, depressional	25	Drainageways on marine terraces, depressions on marine terraces	2, 3
	Pompano, depressional	3	Depressions on marine terraces	2, 3
	Placid	3	Depressions on marine terraces	2, 3
	Basinger, depressional	3	Depressions on marine terraces	2, 3
	Pomona, depressional	2	Depressions on marine terraces, drainageways on marine terraces	2, 3
	Valkaria	2	Flats on marine terraces	2
	Samsula	2	Depressions on marine terraces	1, 3
36—Myakka variant fine sand				
	Tuscawilla	7	Flats on marine terraces	2
38—Paisley fine sand				
	Paisley	90	Flood plains on marine terraces, flats on marine terraces	2
	Fluvaquents	2	Flood plains on marine terraces	2, 4
	Bluff	2	Stream terraces on flood plains on marine terraces	2, 4
	Riviera, hydric	2	Flats on marine terraces	2
	Tequesta	2	Depressions on marine terraces	2, 3
	Wabasso, hydric	1	Flats on marine terraces	2
	Winder	1	Flats on marine terraces	2
45—Pineda fine sand				
	Pineda, hydric	70	Flats on drainageways on marine terraces	2
	Eaugallie, hydric	5	Flats on marine terraces	2
	Malabar, hydric	5	Flats on marine terraces	2
	Riviera, hydric	5	Flats on marine terraces	2

Hydric Soils–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
46—Pinellas fine sand				
	Eaugallie, depressional	9	Depressions on marine terraces, drainageways on marine terraces	2, 3
	Riviera, hydric	8	Flats on marine terraces	2
	Wabasso, depressional	8	Depressions on marine terraces	2, 3
	Pinellas, hydric	5	Depressions on marine terraces	2
48—Placid fine sand, depressional				
	Placid	80	Depressions on marine terraces	2, 3
	Basinger, depressional	10	Depressions on marine terraces	2, 3
	Pompano, depressional	10	Depressions on marine terraces	2, 3
49—Pomona fine sand				
	Pomona, hydric	10	Flats on marine terraces	2
	Basinger, depressional	4	Depressions on marine terraces	2, 3
50—Pomona fine sand, depressional				
	Pomona, depressional	75	Depressions on marine terraces, drainageways on marine terraces	2, 3
	Basinger, depressional	4	Depressions on marine terraces	2, 3
	Immokalee, depressional	3	Drainageways on marine terraces, depressions on marine terraces	2, 3
	Myakka, depressional	3	Depressions on marine terraces	2, 3
	St. johns, hydric	3	Flats on marine terraces	2
	Wabasso, depressional	3	Depressions on marine terraces	2, 3
	Wauchula, depressional	3	Depressions on marine terraces	2, 3
	Eaugallie, depressional	3	Depressions on marine terraces, drainageways on marine terraces	2, 3
	Malabar, hydric	3	Flats on marine terraces	2

Hydric Soils–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
51—Pomona-St. Johns complex				
	Pomona, depressional	60	Depressions on marine terraces, drainageways on marine terraces	2, 3
	St. johns, depressional	30	Depressions on marine terraces, drainageways on marine terraces	2, 3
	Eaugallie, depressional	2	Drainageways on marine terraces, depressions on marine terraces	2, 3
	Basinger, depressional	2	Depressions on marine terraces	2, 3
	Samsula	1	Depressions on marine terraces	1, 3
	Scoggin	1	Depressions on marine terraces	2, 3
	Pompano, depressional	1	Depressions on marine terraces	2, 3
	Malabar, hydric	1	Flats on marine terraces	2
	Placid	1	Depressions on marine terraces	2, 3
52—Pompano fine sand				
	Pompano, hydric	16	Drainageways on marine terraces	2
	Basinger, depressional	7	Depressions on marine terraces	2, 3
	Placid	6	Depressions on marine terraces	2, 3
53—Pompano-Placid complex				
	Pompano, depressional	55	Depressions on marine terraces	2, 3
	Placid	25	Depressions on marine terraces	2, 3
	Riviera, hydric	4	Flats on marine terraces	2
	Samsula	4	Depressions on marine terraces	1, 3
	Holopaw, hydric	4	Flats on marine terraces	2
	Tequesta	4	Depressions on marine terraces	2, 3
	Malabar, hydric	4	Flats on marine terraces	2

Hydric Soils–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
55—Riviera fine sand				
	Riviera, hydric	55	Flats on marine terraces	2
	Holopaw, hydric	5	Flats on marine terraces	2
	Winder	4	Flats on marine terraces	2
	Paisley	4	Flood plains on marine terraces, flats on marine terraces	2
	Basinger, depressional	4	Depressions on marine terraces	2, 3
	Tuscawilla	4	Flats on marine terraces	2
	Pineda, hydric	4	Flats on drainageways on marine terraces	2
56—Samsula muck				
	Samsula	75	Depressions on marine terraces	1, 3
	Pompano, hydric	5	Drainageways on marine terraces	2
	Placid	5	Depressions on marine terraces	2, 3
	Basinger, depressional	5	Depressions on marine terraces	2, 3
	Myakka, depressional	5	Depressions on marine terraces	2, 3
	St. johns, hydric	5	Flats on marine terraces	2
59—Scoggin sand				
	Scoggin	80	Depressions on marine terraces	2, 3
	Wabasso, depressional	5	Depressions on marine terraces	2, 3
	Pompano, hydric	5	Drainageways on marine terraces	2
	Wauchula, depressional	5	Depressions on marine terraces	2, 3
	Riviera, hydric	5	Flats on marine terraces	2
60—Smyrna fine sand				
	Smyrna, hydric	10	Flats on marine terraces	2
	Basinger, depressional	3	Depressions on marine terraces	2, 3

Hydric Soils–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
61—St. Johns fine sand				
	St. johns, hydric	60	Flats on marine terraces	2
	Placid	5	Depressions on marine terraces	2, 3
	Myakka, hydric	5	Flats on marine terraces	2
	Basinger, depressional	5	Depressions on marine terraces	2, 3
	Smyrna, hydric	5	Flats on marine terraces	2
64—Tequesta muck				
	Tequesta	85	Depressions on marine terraces	2, 3
	Chobee, frequently flooded	3	Flood plains on marine terraces, flats on marine terraces, drainageways on marine terraces	2, 4
	Wabasso, depressional	2	Depressions on marine terraces	2, 3
	Winder	2	Flats on marine terraces	2
	Pineda, hydric	2	Flats on drainageways on marine terraces	2
	Riviera, hydric	2	Flats on marine terraces	2
	Tomoka	2	Depressions on marine terraces	1, 3
	Holopaw, hydric	2	Flats on marine terraces	2
65—Terra Ceia muck				
	Terra ceia	80	Depressions on marine terraces	1, 3
	Tomoka	4	Depressions on marine terraces	1, 3
	St. johns, hydric	4	Flats on marine terraces	2
	Placid	4	Depressions on marine terraces	2, 3
	Fluvaquents	4	Flood plains on marine terraces	2, 4
	Chobee, frequently flooded	4	Flood plains on marine terraces, flats on marine terraces, drainageways on marine terraces	2, 4
66—Tomoka muck				
	Tomoka	85	Depressions on marine terraces	1, 3
	Hontoon	10	Depressions on marine terraces	1, 3
	Samsula	5	Depressions on marine terraces	1, 3

Hydric Soils–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
67—Turnbull muck				
	Turnbull, tidal	70	Tidal marshes on marine terraces	2, 3, 4
	Hydraquents, tidal	30	Tidal marshes on marine terraces	2
69—Tuscawilla fine sand				
	Tuscawilla	85	Flats on marine terraces	2
	Chobee, frequently flooded	8	Flood plains on marine terraces, flats on marine terraces, drainageways on marine terraces	2, 4
	Tequesta	7	Depressions on marine terraces	2, 3
70—Tuscawilla-Urban land complex				
	Tuscawilla	55	Flats on marine terraces	2
	Chobee, frequently flooded	2	Flood plains on marine terraces, flats on marine terraces, drainageways on marine terraces	2, 4
	Riviera, hydric	2	Flats on marine terraces	2
	Winder	1	Flats on marine terraces	2
72—Valkaria fine sand				
	Valkaria	85	Flats on marine terraces	2
	Myakka, hydric	4	Flats on marine terraces	2
	Malabar, hydric	4	Flats on marine terraces	2
	Basinger, depressional	4	Depressions on marine terraces	2, 3
	Pompano, hydric	3	Drainageways on marine terraces	2
73—Wabasso fine sand				
	Wabasso, hydric	10	Flats on marine terraces	2
	Basinger, depressional	3	Depressions on marine terraces	2, 3

Hydric Soils–Volusia County, Florida				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
74—Wabasso fine sand, depressional				
	Wabasso, depressional	75	Depressions on marine terraces	2, 3
	Basinger, depressional	4	Depressions on marine terraces	2, 3
	Eaugallie, depressional	3	Depressions on marine terraces, drainageways on marine terraces	2, 3
	Wauchula, depressional	3	Depressions on marine terraces	2, 3
	Riviera, hydric	3	Flats on marine terraces	2
	Holopaw, hydric	3	Flats on marine terraces	2
	Pineda, hydric	3	Flats on drainageways on marine terraces	2
	Smyrna, hydric	3	Flats on marine terraces	2
	Myakka, depressional	3	Depressions on marine terraces	2, 3
75—Wauchula fine sand				
	Wauchula, hydric	10	Flats on marine terraces	2
	Pineda, hydric	4	Flats on drainageways on marine terraces	2
	Scoggin	4	Depressions on marine terraces	2, 3
76—Wauchula fine sand, depressional				
	Wauchula, depressional	80	Depressions on marine terraces	2, 3
	Basinger, depressional	7	Depressions on marine terraces	2, 3
	Pomona, depressional	7	Depressions on marine terraces, drainageways on marine terraces	2, 3
77—Winder fine sand				
	Winder	85	Flats on marine terraces	2
	Riviera, hydric	5	Flats on marine terraces	2
	Chobee, frequently flooded	5	Flood plains on marine terraces, flats on marine terraces, drainageways on marine terraces	2, 4
	Paisley	5	Flood plains on marine terraces, flats on marine terraces	2

Data Source Information

Soil Survey Area: Volusia County, Florida
Survey Area Data: Version 11, Dec 6, 2013