

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--Marion County Area, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
2—Adamsville sand, 0 to 5 percent slopes				
	Pompano	4	Flats on marine terraces	2
3—Anclote sand, depressionnal				
	Anclote	80	Depressions on marine terraces	2, 3
	Bluff	4	Flood plains on marine terraces	2, 4
	Holopaw	4	Flats on marine terraces	2
	Placid, depressionnal	4	Depressions on marine terraces	2, 3
	Terra ceia	4	Depressions on marine terraces	1, 3
	Tomoka	4	Depressions on marine terraces	1, 3
4—Anclote-Tomoka complex, depressionnal				
	Anclote	45	Depressions on flood plains on marine terraces	2, 3, 4
	Tomoka	40	Flood plains on marine terraces	1, 3, 4
	Terra ceia	15	Depressions on marine terraces	1, 3
16—Blichton sand, 0 to 2 percent slopes				
	Blichton, hydric	10	Flats on marine terraces, rises on marine terraces	2
	Flemington	5	Flats on marine terraces	2
17—Blichton sand, 2 to 5 percent slopes				
	Blichton, hydric	10	Ridges on marine terraces	2
	Flemington	4	Seeps on hillslopes on marine terraces	2
18—Blichton-Urban land complex, 0 to 5 percent slopes				
	Blichton, hydric	10	Ridges on marine terraces, knolls on marine terraces	2
19—Bluff sandy clay, frequently flooded				
	Bluff	75	Flood plains on marine terraces	2, 4
	Anclote	7	Depressions on flood plains on marine terraces	2, 3, 4
	Paisley	6	Flats on marine terraces	2
	Terra ceia	6	Depressions on marine terraces	1, 3
	Tomoka	6	Flood plains on marine terraces	1, 3, 4

Hydric Soils--Marion County Area, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
20—Boardman loamy sand, 5 to 8 percent slopes				
	Boardman, hydric	15	Seeps on hillslopes on marine terraces	2
	Fellowship, hydric	4	Hills on marine terraces	2
	Flemington	4	Seeps on hillslopes on marine terraces	2
21—Boardman loamy sand, 8 to 12 percent slopes				
	Boardman, hydric	15	Seeps on hillslopes on marine terraces	2
	Fellowship, hydric	6	Hills on marine terraces	2
23—Candler sand, 5 to 12 percent slopes				
	Pompano	4	Flats on marine terraces	2
25—Eaton loamy sand				
	Eaton, hydric	15	Flats on marine terraces	2
	Eureka, hydric	5	Flats on marine terraces	2
	Martel	5	Depressions on marine terraces	2, 3
26—Electra sand, 0 to 5 percent slopes				
	Placid	4	Flats on marine terraces	2
27—Eureka loamy fine sand				
	Eureka, hydric	65	Flats on marine terraces	2
	Paisley, hydric	5	Flats on marine terraces	2
	Martel	5	Depressions on marine terraces	2, 3
28—Eureka loamy fine sand, depressional				
	Eureka, hydric	85	Depressions on marine terraces	2, 3
	Eaton, hydric	5	Flats on marine terraces	2
	Martel	5	Depressions on marine terraces	2, 3
29—Fellowship loamy sand, 2 to 5 percent slopes				
	Fellowship, hydric	10	Hills on marine terraces	2
	Flemington	4	Seeps on hillslopes on marine terraces	2
30—Fellowship loamy sand, 5 to 8 percent slopes				
	Fellowship, hydric	10	Seeps on hillslopes on marine terraces	2
	Flemington	6	Seeps on hillslopes on marine terraces	2

Hydric Soils--Marion County Area, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
31—Fellowship gravelly loamy sand, gravelly subsoil variant, 2 to 5 percent slopes				
	Fellowship variant	85	Hills on marine terraces	2
	Flemington	6	Seeps on hillslopes on marine terraces	2
32—Fellowship gravelly loamy sand, gravelly subsoil variant, 5 to 8 percent slopes				
	Fellowship variant, hydric	10	Seeps on hillslopes on marine terraces	2
	Flemington	9	Seeps on hillslopes on marine terraces	2
33—Flemington loamy sand, 0 to 2 percent slopes				
	Flemington	85	Flats on marine terraces	2
	Fellowship, hydric	3	Hills on marine terraces	2
34—Flemington loamy sand, 2 to 5 percent slopes				
	Flemington	80	Seeps on hillslopes on marine terraces	2
40—Holopaw sand				
	Holopaw	80	Flats on marine terraces	2
	Paisley	7	Flats on marine terraces	2
	Anclote	7	Depressions on marine terraces	2, 3
41—Hontoon muck, depressional				
	Hontoon	88	Depressions on marine terraces	1, 3
	Terra ceia	6	Depressions on marine terraces	1, 3
	Tomoka	6	Depressions on marine terraces	1, 3
43—Kanapaha fine sand, 0 to 5 percent slopes				
	Kanapaha, hydric	10	Flats, marine terraces	2
48—Lynne sand				
	Lynne, hydric	20	Flats on marine terraces	2
	Eureka, hydric	4	Flats on marine terraces	2
	Pomona, hydric	3	Flats on marine terraces	2

Hydric Soils--Marion County Area, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
49--Martel sandy clay loam				
	Martel	85	Depressions on marine terraces	2, 3
	Eaton, hydric	5	Flats on marine terraces	2
	Eureka, hydric	5	Depressions on marine terraces	2, 3
	Flemington	5	Seeps on hillslopes on marine terraces	2
50--Micanopy fine sand, 2 to 5 percent slopes				
	Flemington	6	Seeps on hillslopes on marine terraces	2
51--Micanopy fine sand, 5 to 8 percent slopes				
	Flemington	5	Seeps on hillslopes on marine terraces	2
54--Paisley loamy fine sand				
	Paisley	85	Flats on marine terraces	2
	Eureka, hydric	4	Flats on marine terraces	2
	Bluff	4	Flood plains on marine terraces	2, 4
	Holopaw	3	Flats on marine terraces	2
57--Pits				
	Aquents	25	Depressions on marine terraces	2, 3
58--Placid sand, depressional				
	Placid, depressional	80	Depressions on marine terraces	2, 3
	Pomona, hydric	7	Flats on marine terraces	2
	Pompano, depressional	6	Depressions on marine terraces	2, 3
59--Placid-Pompano-Pomona complex				
	Placid	37	Flats on marine terraces	2
	Pompano	31	Depressions on marine terraces	2, 3
61--Pomona sand				
	Pomona, hydric	20	Flats on marine terraces	2
	Placid	5	Flats on marine terraces	2
	Pompano	5	Flats on marine terraces	2
62--Pompano sand				
	Pompano	85	Flats on marine terraces	2
	Placid	8	Flats on marine terraces	2

Hydric Soils--Marion County Area, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
63—Pompano fine sand, depressional				
	Pompano, depressional	80	Depressions on marine terraces	2, 3
	Placid, depressional	7	Depressions on marine terraces	2, 3
	Anclote	7	Depressions on marine terraces	2, 3
	Pomona, hydric	6	Flats on marine terraces	2
64—Samsula-Martel complex, depressional				
	Samsula	38	Depressions on marine terraces	1, 3
	Martel variant	32	Depressions on marine terraces	2, 3
	Placid, depressional	15	Depressions on marine terraces	2, 3
	Pompano, depressional	15	Depressions on marine terraces	2, 3
69—Tavares sand, 0 to 5 percent slopes				
	Pompano	3	Flats on marine terraces	2
70—Terra Ceia muck, frequently flooded				
	Terra ceia	75	Depressions on marine terraces	1, 3
	Anclote	7	Depressions on marine terraces	2, 3
	Bluff	6	Flood plains on marine terraces	2, 4
	Hontoon	6	Depressions on marine terraces	1, 3
	Tomoka	6	Depressions on marine terraces	1, 3
71—Tomoka muck, depressional				
	Tomoka	80	Depressions on marine terraces	1, 3
	Bluff	5	Flood plains on marine terraces	2, 4
	Terra ceia	5	Depressions on marine terraces	1, 3
	Hontoon	5	Depressions on marine terraces	1, 3
	Anclote	5	Depressions on marine terraces	2, 3

Hydric Soils--Marion County Area, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
73—Wacahoota loamy sand, 5 to 8 percent slopes				
	Wacahoota, hydric	20	Hillslopes on marine terraces, seeps on marine terraces	2
	Flemington	4	Seeps on hillslopes on marine terraces	2
74—Wacahoota gravelly sand, gravelly subsoil variant, 2 to 5 percent slopes				
	Wacahoota variant, hydric	20	Ridges on marine terraces, seeps on marine terraces	2
75—Wacahoota gravelly sand, gravelly subsoil variant, 5 to 8 percent slopes				
	Wacahoota variant, hydric	20	Hillslopes on marine terraces, seeps on marine terraces	2
	Flemington	6	Seeps on hillslopes on marine terraces	2
77—Zuber loamy sand, 2 to 5 percent slopes				
	Flemington	4	Seeps on hillslopes on marine terraces	2
78—Zuber loamy sand, 5 to 8 percent slopes				
	Flemington	5	Seeps on hillslopes on marine terraces	2
83—Lutterloh-Moriah complex, 0 to 5 percent slopes				
	Hicoria	1	Flats on marine terraces	2
	Holopaw	1	Flats, marine terraces, drainageways	2
84—Pedro-Jonesville-Shadeville complex, 0 to 5 percent slopes				
	Hicoria, depressional	1	Depressions on marine terraces	2, 3
85—Moriah-Bushnell-Mabel, limestone substratum, complex, 0 to 5 percent slopes				
	Hicoria, depressional	2	Depressions on marine terraces	2, 3
87—Orlando fine sand, 1 to 5 percent slopes				
	Popash	1	Depressions on marine terraces	2, 3
	Placid, depressional	1	Depressions on marine terraces	2, 3

Hydric Soils--Marion County Area, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
88—Orlando fine sand, 5 to 8 percent slopes				
	Popash	1	Depressions on marine terraces	2, 3
	Placid, depressional	1	Depressions on marine terraces	2, 3

Data Source Information

Soil Survey Area: Marion County Area, Florida
 Survey Area Data: Version 10, Sep 21, 2014