

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--Nassau County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
4—Echaw fine sand				
	Lynn haven	3	Depressions on marine terraces	2, 3
7—Kingsland mucky peat, frequently flooded				
	Kingsland	88	Flood plains on marine terraces	1, 4
	Tisonia	6	Tidal marshes on marine terraces	1
9—Leon fine sand				
	Leon, hydric	5	Flats on marine terraces	2
	Kingsferry	1	Flats on marine terraces	2
	Wesconnett	1	Depressions on marine terraces	2, 3
10—Mandarin fine sand, 0 to 2 percent slopes				
	Leon	5	Flatwoods	2
	Rutlege	1	Depressions, drainageways	2
11—Chaires fine sand				
	Goldhead, depressional	3	Depressions on marine terraces	2, 3
	Meggett	2	Flats on marine terraces	2
	Meadowbrook, depressional	2	Depressions on marine terraces	2, 3
13—Goldhead fine sand				
	Goldhead, hydric	43	Flats on marine terraces	2
	Meggett	1	Flats on marine terraces	2
	Ellabelle	1	Drainageways on marine terraces	2, 3, 4
14—Rutlege mucky fine sand, frequently flooded				
	Rutlege	90	Drainageways on marine terraces	2, 4
	Croatan	4	Flood plains on marine terraces	1, 4
	Ellabelle	3	Drainageways on marine terraces	2, 3, 4
	Kingsferry	3	Flats on marine terraces	2

Hydric Soils--Nassau County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
15--Buccaneer clay, frequently flooded				
	Buccaneer	94	Flood plains on marine terraces	2, 4
	Meggett	3	Flats on marine terraces	2
	Croatan	3	Flood plains on marine terraces	1, 4
16--Ellabelle mucky fine sand, frequently flooded				
	Ellabelle	91	Drainageways on marine terraces	2, 3, 4
	Meggett	3	Flats on marine terraces	2
	Goldhead, hydric	3	Flats on marine terraces	2
	Kingsferry	3	Flats on marine terraces	2
18--Lynn Haven-Wesconnett-Leon complex, depressional				
	Lynn haven	35	Depressions on marine terraces	2, 3
	Wesconnett	30	Depressions on marine terraces	2, 3
	Leon	28	Depressions on marine terraces	2, 3
	Evergreen	7	Depressions on marine terraces	2, 3
19--Leon fine sand, tidal				
	Leon, tidal	95	Tidal marshes on marine terraces	2
	Tisonia	2	Tidal marshes on marine terraces	1
22--Sapelo-Leon fine sand				
	Leon, hydric	5	Flats on marine terraces	2
	Sapelo, hydric	5	Flats on marine terraces	2
	Goldhead, depressional	2	Depressions on marine terraces	2, 3
	Meadowbrook, depressional	2	Depressions on marine terraces	2, 3
24--Kingsferry fine sand				
	Kingsferry	89	Flats on marine terraces	2
	Lynn haven	4	Depressions on marine terraces	2, 3
	Rutlege	3	Drainageways on marine terraces	2, 4

Hydric Soils--Nassau County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
25—Maurepas muck, frequently flooded				
	Maurepas	86	Flood plains on marine terraces	1, 3, 4
	Evergreen	5	Depressions on marine terraces	2, 3
	Croatan	5	Flood plains on marine terraces	1, 4
	Rutlege	4	Drainageways on marine terraces	2, 4
28—Tisonia mucky peat, tidal				
	Tisonia, tidal	98	Tidal marshes on marine terraces	1
	Maurepas	1	Flood plains on marine terraces	1, 3, 4
	Kingsland	1	Flood plains on marine terraces	1, 4
32—Aqualfs, loamy				
	Aqualfs	2	Depressions	2
33—Goldhead-Meadowbrook fine sands, depressional				
	Goldhead, depressional	64	Depressions on marine terraces	2, 3
	Meadowbrook, depressional	27	Depressions on marine terraces	2, 3
	Croatan	9	Flood plains on marine terraces	1, 4
34—Croatan muck, frequently flooded				
	Croatan	87	Flood plains on marine terraces	1, 4
	Ellabelle	4	Drainageways on marine terraces	2, 3, 4
	Goldhead, hydric	3	Flats on marine terraces	2
	Kingsferry	3	Flats on marine terraces	2
37—Meggett loamy fine sand				
	Meggett	83	Flats on marine terraces	2
	Brookman, depressional	6	Depressions on marine terraces	2, 3
	Buccaneer	6	Flood plains on marine terraces	2, 4
	Goldhead, hydric	5	Flats on marine terraces	2

Hydric Soils--Nassau County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
38—Meggett fine sandy loam, rarely flooded				
	Meggett	93	Flats on marine terraces	2
	Brookman, depressional	3	Depressions on marine terraces	2, 3
	Buccaneer	2	Flood plains on marine terraces	2, 4
	Goldhead, hydric	2	Flats on marine terraces	2
39—Evergreen-Leon mucks, depressional				
	Evergreen	64	Depressions on marine terraces	2, 3
	Leon	36	Depressions on marine terraces	2, 3
40—Brookman mucky fine sandy loam, depressional				
	Brookman, depressional	90	Depressions on marine terraces	2, 3
	Goldhead, hydric	5	Flats on marine terraces	2
	Croatan	5	Flood plains on marine terraces	1, 4
45—Meggett loamy fine sand, depressional				
	Meggett, depressional	89	Depressions on marine terraces	2, 3
	Brookman, depressional	11	Depressions on marine terraces	2, 3
46—Buccaneer clay, rarely flooded				
	Buccaneer	92	Flats on marine terraces	2
	Meggett	8	Flats on marine terraces	2
47—Leefield fine sand, 0 to 5 percent slopes				
	Goldhead, hydric	3	Flats on marine terraces	2
49—Ousley and Mandarin fine sands, occasionally flooded				
	Meadowbrook, hydric	4	Flats on marine terraces	2
51—Albany fine sand, 0 to 5 percent slopes				
	Meadowbrook, hydric	2	Flats on marine terraces	2
52—Osier loamy fine sand, frequently flooded				
	Osier	98	Flood plains on marine terraces	2, 4
	Ellabelle	2	Drainageways on marine terraces	2, 3, 4

Hydric Soils--Nassau County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
53—Meadowbrook fine sand				
	Meadowbrook, hydric	35	Flats on marine terraces	2
	Sapelo, hydric	2	Flats on marine terraces	2
	Osier	2	Flood plains on marine terraces	2, 4
54—Sapelo fine sand				
	Sapelo, hydric	5	Flats on marine terraces	2
	Goldhead, depressional	3	Depressions on marine terraces	2, 3
	Meadowbrook, depressional	2	Depressions on marine terraces	2, 3
55—Meadowbrook-Goldhead-Meggett complex, 2 to 5 percent slopes				
	Meadowbrook	41	Valley sides on marine terraces	2
	Goldhead	31	Valley sides on marine terraces	2
	Meggett	22	Valley sides on marine terraces	2

Data Source Information

Soil Survey Area: Nassau County, Florida
 Survey Area Data: Version 13, Sep 10, 2014