

## 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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- Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
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- 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--Columbia County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
21—Dorovan muck				
	Dorovan	85	Depressions on drainageways on marine terraces	1, 3, 4
	Pamlico, loamy substratum	5	Depressions on marine terraces	1, 3, 4
	Surrency	5	Depressions on marine terraces	2, 3
	Plummer, depressional	5	Depressions on marine terraces	2, 3
23—Electra variant fine sand, occasionally flooded				
	Plummer, occasionally flooded	4	Flood plains on marine terraces	2
31—Leefield fine sand				
	Pelham, hydric	3	Flats on marine terraces	2
32—Leon fine sand				
	Leon, hydric	10	Flats on marine terraces	2
33—Leon fine sand, occasionally flooded				
	Leon, hydric	15	Stream terraces on marine terraces	2
	Plummer, occasionally flooded	3	Flood plains on marine terraces	2
	Mascotte, hydric	3	Flood plains on marine terraces	2
36—Mandarin fine sand, 0 to 2 percent slopes				
	Leon	5	Flatwoods	2
	Rutlege	1	Depressions, drainageways	2
37—Mascotte fine sand				
	Pelham, hydric	4	Flats on marine terraces	2
38—Mascotte fine sand, depressional				
	Mascotte, depressional	85	Depressions on marine terraces	2, 3
	Pelham, hydric	3	Flats on marine terraces	2
	Leon, hydric	3	Flats on marine terraces	2
	Surrency	3	Depressions on marine terraces	2, 3
	Plummer, depressional	3	Depressions on marine terraces	2, 3

Hydric Soils--Columbia County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
39—Mascotte fine sand, occasionally flooded				
	Mascotte, hydric	10	Flood plains on marine terraces	2
	Leon, hydric	6	Stream terraces on marine terraces	2
	Plummer, occasionally flooded	6	Flood plains on marine terraces	2
40—Ocilla fine sand, 0 to 5 percent slopes				
	Pelham, hydric	5	Flats on marine terraces	2
41—Oleno clay				
	Oleno	80	Flood plains on marine terraces	2
	Surrency, occasionally flooded	10	Flood plains on marine terraces	2, 3
	Plummer, occasionally flooded	10	Flood plains on marine terraces	2
42—Olustee fine sand, thick surface				
	Olustee, hydric	20	Flats on marine terraces	2
45—Pamlico muck, loamy substratum				
	Pamlico, loamy substratum	75	Depressions on marine terraces	1, 3
	Plummer, depressional	13	Depressions on marine terraces	2, 3
	Surrency	12	Depressions on marine terraces	2, 3
46—Pamlico, loamy substratum-Dorovan complex				
	Pamlico, loamy substratum	40	Depressions on marine terraces	1
	Dorovan	35	Depressions on marine terraces	1, 3, 4
	Mascotte, depressional	13	Depressions on marine terraces	2, 3
	Plummer, depressional	12	Depressions on marine terraces	2, 3
47—Pantego fine sandy loam				
	Pantego	85	Depressions on marine terraces	2
	Plummer, depressional	8	Depressions on marine terraces	2, 3
	Surrency	7	Depressions on marine terraces	2, 3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
48—Pelham fine sand				
	Pelham, hydric	15	Flats on marine terraces	2
	Surrency	5	Depressions on marine terraces	2, 3
49—Pelham fine sand, occasionally flooded				
	Pelham, hydric	15	Stream terraces on marine terraces	2
	Surrency, occasionally flooded	6	Flood plains on marine terraces	2, 3
51—Plummer fine sand				
	Plummer, hydric	10	Flats on marine terraces	2
52—Plummer fine sand, depressional				
	Plummer, depressional	85	Depressions on marine terraces	2, 3
	Pelham, hydric	8	Flats on marine terraces	2
	Surrency	7	Depressions on marine terraces	2, 3
53—Plummer fine sand, occasionally flooded				
	Plummer, hydric	15	Flood plains on marine terraces	2
	Pelham, hydric	8	Stream terraces on marine terraces	2
	Mascotte, hydric	8	Flood plains on marine terraces	2
54—Plummer muck, depressional				
	Plummer, depressional	75	Depressions on marine terraces	2, 3
	Pamlico, loamy substratum	9	Depressions on marine terraces	1
	Pelham, hydric	8	Flats on marine terraces	2
	Surrency	8	Depressions on marine terraces	2, 3

Hydric Soils--Columbia County, Florida				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
55—Plummer, depressional-Pamlico, loamy substratum complex				
	Plummer, depressional	40	Depressions on marine terraces	2, 3
	Pamlico, loamy substratum	25	Depressions on marine terraces	1
	Mascotte, hydric	10	Flood plains on marine terraces	2
	Dorovan	7	Depressions on drainageways on marine terraces	1, 3, 4
	Surrency	6	Depressions on marine terraces	2, 3
	Pantego	6	Depressions on marine terraces	2
	Pelham, hydric	6	Flats on marine terraces	2
56—Sapelo fine sand				
	Pelham, hydric	5	Flats on marine terraces	2
57—Surrency fine sand				
	Surrency	90	Depressions on marine terraces	2, 3
	Pantego	4	Depressions on marine terraces	2
	Plummer, depressional	3	Depressions on marine terraces	2, 3
58—Surrency fine sand, occasionally flooded				
	Surrency, occasionally flooded	75	Flood plains on marine terraces	2, 3
	Plummer, occasionally flooded	12	Flood plains on marine terraces	2

## Data Source Information

Soil Survey Area: Columbia County, Florida  
 Survey Area Data: Version 10, Sep 18, 2014