Hydric Soils

Windham County, Vermont

[This report lists only those map unit components that are rated as hydric. Dashes (---) in any column indicate that the data were not included in the database. Definitions of hydric criteria codes are included at the end of the report] Dominant components that are hydric are highlighted.

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1A:					
Unadilla silt loam, 0 to 3 percent slopes	Walpole	3	Depressions	Yes	2
1B:					
Unadilla silt loam, 3 to 8 percent slopes	Walpole	3	Depressions	Yes	2
1C:					
Unadilla silt loam, 8 to 15 percent slopes	Walpole	3	Depressions	Yes	2
2A:					
Belgrade silt loam, 0 to 3 percent slopes	Walpole	3	Depressions	Yes	2
	Birdsall	2	Depressions	Yes	2, 3
3B:					
Quonset and Warwick soils, 2 to 8 percent slopes	Walpole	3	Depressions	Yes	2
3C:					
Quonset and Warwick soils, 8 to 15 percent slopes	Walpole	1	Depressions	Yes	2
9B:					
Deerfield fine sandy loam, 2 to 8 percent slopes	Walpole	3	Depressions	Yes	2
10A:					
Agawam fine sandy loam, 0 to 3 percent slopes	Walpole	3	Depressions	Yes	2
12C:					
Stratton-Glebe complex, 8 to 15 percent slopes, very rocky	Markey, undrained	4	Depressions	Yes	1, 3
	Wilmington	4	Depressions	Yes	2
12D:					
Stratton-Glebe complex, 15 to 25 percent slopes, very rocky	Markey, undrained	3	Depressions	Yes	1, 3
	Wilmington	3	Depressions	Yes	2
17B:					
Worden loam, 3 to 8 percent slopes	Wilmington	3	Depressions	Yes	2
	Markey, undrained	2	Depressions	Yes	1, 3
17C:					
Worden loam, 8 to 15 percent slopes	Wilmington	3	Depressions	Yes	2

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
18B:					
Worden loam, 3 to 8 percent slopes, very bouldery	Wilmington	3	Depressions	Yes	2
	Markey, undrained	2	Depressions	Yes	1, 3
18C:					
Worden loam, 8 to 15 percent slopes, very bouldery	Wilmington	3	Depressions	Yes	2
18D:					
Worden loam, 15 to 25 percent slopes, very bouldery	Wilmington	3	Drainageways	Yes	2
20B:					
Tunbridge-Lyman complex, 0 to 8 percent slopes, very rocky	Cabot, very rocky	3	Hills, Mountains	Yes	2
20C:					
Tunbridge-Lyman complex, 8 to 15 percent slopes, very rocky	Cabot, very rocky	5	Hills, Mountains	Yes	2
20D:					
Tunbridge-Lyman complex, 15 to 25 percent slopes, very rocky	Cabot, very rocky	4	Hills, Mountains	Yes	2
20E:					
Tunbridge-Lyman complex, 25 to 60 percent slopes, very rocky	Cabot, very rocky	1	Hills, Mountains	Yes	2
21B:					
Marlow fine sandy loam, 3 to 8 percent slopes	Pillsbury	3	Hills, Mountains	Yes	2
21C:					
Marlow fine sandy loam, 8 to 15 percent slopes	Pillsbury	2	Hills, Mountains	Yes	2
21D:					
Marlow fine sandy loam, 15 to 25 percent slopes	Brayton	4	Hills, Mountains	Yes	2
22B:					
Marlow fine sandy loam, 0 to 8 percent slopes, very stony	Pillsbury, very stony	4	Hills, Mountains	Yes	2
22C:					
Marlow fine sandy loam, 8 to 15 percent slopes, very stony	Pillsbury, very stony	2	Hills, Mountains	Yes	2
22D:					
Marlow fine sandy loam, 15 to 25 percent slopes, very stony	Pillsbury, very stony	2	Hills, Mountains	Yes	2
22E:					
Marlow fine sandy loam, 25 to 50 percent slopes, very stony	Pillsbury, very stony	2	Hills, Mountains	Yes	2
23:					
Ondawa fine sandy loam, 0 to 3 percent slopes, occasionally flooded	Rumney	3	Flood plains	Yes	2

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24:					
Podunk fine sandy loam, 0 to 3 percent slopes, occasionally flooded	Rumney	6	Flood plains	Yes	2
	Charles	2	Flood plains	Yes	2
25B:					
Westbury fine sandy loam, 3 to 8 percent slopes	Brayton	3	Depressions	Yes	2
	Markey, undrained	3	Depressions	Yes	1, 3
25C:					
Westbury fine sandy loam, 8 to 15 percent slopes	Brayton	3	Depressions	Yes	2
	Markey, undrained	3	Depressions	Yes	1, 3
26B:					
Westbury fine sandy loam, 3 to 8 percent slopes, very stony	Brayton	3	Depressions	Yes	2
	Markey, undrained	3	Depressions	Yes	1, 3
26C:					
Westbury fine sandy loam, 8 to 15 percent slopes, very stony	Brayton	3	Depressions	Yes	2
	Markey, undrained	3	Depressions	Yes	1, 3
29:					
Walpole sandy loam, 0 to 3 percent slopes	Walpole	80	Depressions	Yes	2
	Scarboro	10	Outwash terraces	Yes	2, 3
31B:					
Wilmington sandy loam, 0 to 8 percent slopes, very stony	Wilmington, very stony	85	Hills, Mountains	Yes	2
	Pondicherry, very stony	5	Hills, Mountains	Yes	1, 3
	Bucksport, very stony	3	Hills, Mountains	Yes	1, 3
33:					
Rumney fine sandy loam, 0 to 3 percent slopes, frequently flooded	Rumney	84	Flood plains	Yes	2
	Medomak	6	Flood plains	Yes	2, 3, 4
	Charles	3	Flood plains	Yes	2
34C:					
Lyman-Rock outcrop complex, 8 to 15 percent slopes	Markey, very stony	2	Hills, Mountains	Yes	1, 3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
34D:					
Lyman-Rock outcrop complex, 15 to 25 percent slopes	Cabot, very stony	3	Hills, Mountains	Yes	2
34E:					
Lyman-Rock outcrop complex, 25 to 50 percent slopes	Cabot, very stony	1	Hills, Mountains	Yes	2
37:					
Hadley silt loam	Limerick	5	Depressions, Flood plains	Yes	2
39:					
Winooski silt loam	Limerick	7	Depressions, Flood plains	Yes	2
40:					
Limerick silt loam	Limerick	85	Flood plains	Yes	2
41D:					
Londonderry-Stratton silt loams, 8 to 25 percent slopes, very rocky	Wilmington	3	Drainageways	Yes	2
41E:					
Londonderry-Stratton silt loams, 25 to 70 percent slopes, very rocky	Wilmington	3	Drainageways	Yes	2
43B:					
Mundal fine sandy loam, 3 to 8 percent slopes	Wilmington	3	Depressions	Yes	2
43C:					
Mundal fine sandy loam, 8 to 15 percent slopes	Wilmington	3	Depressions	Yes	2
44B:					
Mundal fine sandy loam, 3 to 8 percent slopes, very stony	Wilmington	3	Depressions	Yes	2
44C:					
Mundal fine sandy loam, 8 to 15 percent slopes, very stony	Wilmington	3	Depressions	Yes	2
47:					
Lupton mucky peat	Lupton, undrained	85	Bogs, Swamps	Yes	1, 3
	Medomak	5	Flood plains	Yes	2, 3, 4
	Wilmington	5	Knolls	Yes	2
48B:					
Rawsonville-Hogback fine sandy loams, 3 to 8 percent slopes rocky	Markey, undrained	2	Depressions	Yes	1, 3
	Wilmington	2	Depressions	Yes	2

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
48C:					
Rawsonville-Hogback fine sandy loams, 8 to 15 percent slopes, rocky	Markey, undrained	2	Depressions	Yes	1, 3
	Wilmington	2	Depressions	Yes	2
49B:					
Houghtonville-Rawsonville fine sandy loams, 3 to 8 percent slopes, very bouldery	Markey, undrained	3	Depressions	Yes	1, 3
	Wilmington	3	Depressions	Yes	2
49C:					
Houghtonville-Rawsonville fine sandy loams, 8 to 15 percent slopes, very bouldery	Wilmington	3	Depressions	Yes	2
49D:					
Houghtonville-Rawsonville fine sandy loams, 15 to 25 percent slopes, very bouldery	Wilmington	5	Depressions	Yes	2
50B:					
Colton loamy fine sand, 2 to 8 percent slopes	Walpole	3	Depressions	Yes	2
50C:					
Colton loamy fine sand, 8 to 15 percent slopes	Walpole	3	Depressions	Yes	2
50D:					
Colton loamy fine sand, 15 to 25 percent slopes	Walpole	3	Depressions	Yes	2
52A:					
Sheepscot fine sandy loam, 0 to 3 percent slopes	Wilmington	5	Depressions	Yes	2
52B:					
Sheepscot fine sandy loam, 3 to 8 percent slopes	Wilmington	5	Depressions	Yes	2
56B:					
Monadnock fine sandy loam, 3 to 8 percent slopes, very stony	Wilmington	3	Depressions	Yes	2
56C:					
Monadnock fine sandy loam, 8 to 15 percent slopes, very stony	Wilmington	3	Depressions	Yes	2
60B:					
Houghtonville fine sandy loam, 3 to 8 percent slopes	Wilmington	2	Depressions	Yes	2
60C:					
Houghtonville fine sandy loam, 8 to 15 percent slopes	Wilmington	2	Depressions	Yes	2
60D:					
Houghtonville fine sandy loam, 15 to 25 percent slopes	Wilmington	2	Drainageways	Yes	2

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
61B:					
Houghtonville fine sandy loam, 3 to 8 percent slopes, very stony	Wilmington	2	Drainageways	Yes	2
61C:					
Houghtonville fine sandy loam, 8 to 15 percent slopes, very stony	Wilmington	2	Depressions	Yes	2
61D:					
Houghtonville fine sandy loam, 15 to 25 percent slopes, very stony	Wilmington	2	Drainageways	Yes	2
62:					
Markey muck	Markey, undrained	85	Bogs, Swamps	Yes	1, 3
	Medomak	5	Flood plains	Yes	2, 3, 4
	Wilmington	5	Knolls	Yes	2
64:					
Udifluvents, loamy	Rumney	4	Depressions, Flood plains	Yes	2
65C:					
Hogback-Rawsonville fine sandy loams, 8 to 15 percent slopes, very rocky	Markey, undrained	3	Depressions	Yes	1, 3
	Wilmington	3	Depressions	Yes	2
66B:					
Houghtonville-Rawsonville fine sandy loams, 3 to 8 percent slopes, rocky	Wilmington	3	Depressions	Yes	2
66C:					
Houghtonville-Rawsonville fine sandy loams, 8 to 15 percent slopes, rocky	Wilmington	3	Depressions	Yes	2
68D:					
Taconic-Hubbardton-Rock outcrop complex, 8 to 25 percent slopes	Brayton	2	Drainageways	Yes	2
68E:					
Taconic-Hubbardton-Rock outcrop complex, 25 to 70 percent slopes	Brayton	3	Drainageways	Yes	2
69C:					
Macomber-Taconic complex, 8 to 15 percent slopes, very rocky	Brayton	3	Depressions	Yes	2
70C:					
Dummerston-Macomber complex, 8 to 15 percent slopes, very stony	Brayton	3	Depressions	Yes	2
71B:					
Dummerston silt loam, 3 to 8 percent slopes	Brayton	3	Depressions	Yes	2

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
71C:					
Dummerston silt loam, 8 to 15 percent slopes	Brayton	3	Depressions	Yes	2
72C:					
Dummerston silt loam, 8 to 15 percent slopes, very stony	Brayton	3	Depressions	Yes	2
73B:					
Fullam silt loam, 3 to 8 percent slopes	Brayton	4	Depressions	Yes	2
73C:					
Fullam silt loam, 8 to 15 percent slopes	Brayton	4	Depressions	Yes	2
74B:					
Fullam silt loam, 3 to 8 percent slopes, very stony	Brayton	4	Depressions	Yes	2
74C:					
Fullam silt loam, 8 to 15 percent slopes, very stony	Brayton	4	Depressions	Yes	2
75B:					
Brayton silt loam, 2 to 8 percent slopes, very stony	Brayton	85	Depressions, Drainageways	Yes	2
	Markey, undrained	5	Depressions	Yes	1, 3
76B:					
Dummerston-Macomber complex, 3 to 8 percent slopes, rocky	Brayton	2	Depressions	Yes	2
76C:					
Dummerston-Macomber complex, 8 to 15 percent slopes, rocky	Brayton	2	Depressions	Yes	2

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, 2003) 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 others, 2002).

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, 2B3). 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. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
   B. are poorly drained or very poorly drained and have either:
      1) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
      2) a water table at a depth of 0.5 foot or less during the growing season if permeability is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
      3) a water table at a depth of 1.0 foot or less during the growing season if permeability is less than 6.0 in/hr in any layer within a depth of 20 inches.
3. Soils that are frequently ponded for long or very long duration during the growing season.
4. Soils that are frequently flooded for long or very long duration during the growing season.

References:

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