

Hydric Soils

Rice County, Minnesota

[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]

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
4D: Renova loam, 12 to 18 percent slopes	Renova	90	Moraines	No	---
4E: Renova loam, 18 to 30 percent slopes	Renova	90	Moraines	No	---
17: Minneopa sandy loam, 0 to 2 percent slopes, rarely flooded	Minneopa, rarely flooded	90	Flood plains	No	---
24: Kasson silt loam, 1 to 3 percent slopes	Kasson	90	Moraines	No	---
39A: Wadena loam, 0 to 2 percent slopes	Wadena	90	Outwash plains	No	---
41A: Estherville sandy loam, 0 to 2 percent slopes	Estherville	90	Outwash plains	No	---
41B: Estherville sandy loam, 2 to 6 percent slopes	Estherville	85	Outwash plains	No	---
44: Ankeny sandy loam, 0 to 3 percent slopes	Ankeny	90	Outwash plains	No	---
	Terril mod. wet and similar so	10	---	No	---
74B: Dickinson fine sandy loam, 1 to 6 percent slopes	Dickinson	90	Outwash plains	No	---
	Estherville and similar soils	5	---	No	---
	Wadena and similar soils	5	---	No	---
81B: Boone loamy fine sand, 1 to 6 percent slopes	Boone	90	Structural benches	No	---
	Copaston and similar soils	5	---	No	---
	Eyota and similar soils	5	---	No	---

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
81D:					
Boone loamy fine sand, 6 to 18 percent slopes	Boone	90	Structural benches	No	---
	Copaston and similar soils	5	---	No	---
	Eyota and similar soils	5	---	No	---
81E:					
Boone loamy fine sand, 18 to 25 percent slopes	Boone	90	Structural benches	No	---
	Copaston and similar soils	5	---	No	---
	Eyota and similar soils	5	---	No	---
98:					
Colo silty clay loam, 0 to 2 percent slopes, occasionally flooded	Colo, occasionally flooded	90	Flood plains	Yes	2B3
	Biscay and similar soils	5	Flood plains	Yes	2B3
	Epsom and similar soils	5	Flood plains	Yes	2B3, 3
99D2:					
Racine loam, 12 to 18 percent slopes, eroded	Racine, Eroded	90	Moraines	No	---
	Kenyon mod. wet and similar so	5	---	No	---
	Nerwoods and similar soils	5	---	No	---
100A:					
Copaston sandy clay loam, 0 to 2 percent slopes	Copaston	90	Structural benches	No	---
	Boone and similar soils	5	---	No	---
	Eyota and similar soils	5	---	No	---
102B:					
Clarion loam, moderately fine substratum, 2 to 5 percent slopes	Clarion, moderately fine substratum	85	Moraines	No	---
	Nicollet and similar soils	5	---	No	---
	Omsrud and similar soils	5	---	No	---
	Webster and similar soils	5	Drainageways	Yes	2B3

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104B:					
Hayden loam, 2 to 6 percent slopes	Hayden	90	Moraines	No	---
	Dundas mod. coarse sub.	5	---	No	---
	Lesueur mod. coarse sub.	5	---	No	---
104C2:					
Hayden loam, 6 to 12 percent slopes, eroded	Hayden, eroded	90	Moraines	No	---
	Dundas mod. coarse sub.	5	---	No	---
	Lesueur mod. coarse sub.	5	---	No	---
104D2:					
Hayden loam, 12 to 18 percent slopes, eroded	Hayden, eroded	90	Moraines	No	---
	Dundas mod. coarse sub.	5	---	No	---
	Lesueur mod. coarse sub.	5	---	No	---
104E:					
Hayden loam, 18 to 25 percent slopes	Hayden	90	Moraines	No	---
	Dundas mod. coarse sub.	5	---	No	---
	Lesueur mod. coarse sub.	5	---	No	---
106C2:					
Lester loam, 6 to 12 percent slopes, eroded	Lester, eroded	85	Moraines	No	---
	Angus and similar soils	5	---	No	---
	Hamel and similar soils	5	Drainageways	Yes	2B3
	Lesueur and similar soils	5	---	No	---
106D2:					
Lester loam, 12 to 18 percent slopes, eroded	Lester, eroded	90	Moraines	No	---
	Hamel and similar soils	5	Drainageways	Yes	2B3
	Lesueur and similar soils	5	---	No	---

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106E:					
Lester loam 18 to 25 percent slopes	Lester	90	Moraines	No	---
	Hamel and similar soils	5	Drainageways	Yes	2B3
	Lesueur and similar soils	5	---	No	---
109:					
Cordova clay loam, 0 to 2 percent slopes	Cordova	90	Moraines	Yes	2B3
	Hamel and similar soils	5	Drainageways	Yes	2B3
	Lesueur and similar soils	5	---	No	---
113:					
Webster clay loam, 0 to 2 percent slopes	Webster	85	Moraines	Yes	2B3
	Clarion and similar soils	5	---	No	---
	Nicollet and similar soils	5	---	No	---
	Omsrud and similar soils	5	---	No	---
114:					
Glencoe clay loam, depressional, 0 to 1 percent slopes	Glencoe, depressional	90	Depressions, Moraines	Yes	2B3, 3
	Hamel and similar soils	5	Drainageways	Yes	2B3
	Klossner overwash and similar	5	Depressions	Yes	1, 3
130:					
Nicollet clay loam, 1 to 3 percent slopes	Nicollet	85	Moraines	No	---
	Clarion and similar soils	5	---	No	---
	Omsrud and similar soils	5	---	No	---
	Webster and similar soils	5	Flats	Yes	2B3

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134:					
Okoboji silty clay loam, depressional, 0 to 1 percent slopes	Okoboji, depressional	85	Depressions, Moraines	Yes	2B3, 3
	Klossner overwash and similar	5	Depressions	Yes	1, 3
	Lerdal and similar soils	5	---	No	---
	Mazaska and similar soils	5	Flats	Yes	2B3
138B:					
Lerdal clay loam, 2 to 6 percent slopes	Lerdal	90	Moraines	No	---
	Kilkenny and similar soils	5	---	No	---
	Mazaska and similar soils	5	Flats	Yes	2B3
138C:					
Lerdal clay loam, 6 to 12 percent slopes	Lerdal	90	Moraines	No	---
	Kilkenny and similar soils	5	---	No	---
	Mazaska and similar soils	5	Drainageways	Yes	2B3
176:					
Garwin silt loam, 0 to 2 percent slopes	Garwin	85	Moraines	Yes	2B3
	Epsom and similar soils	5	Depressions	Yes	2B3, 3
	Maxcreek and similar soils	5	Drainageways	Yes	2B3
	Nerwoods and similar soils	5	---	No	---
208:					
Kato silty clay loam, 0 to 1 percent slopes	Kato	85	Outwash plains	Yes	2B3
	Littleton till sub.	5	---	No	---
	Talcot and similar soils	5	Outwash terraces	Yes	2B3
	Waukegan and similar soils	5	---	No	---

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
213B:					
Klinger silty clay loam, 1 to 4 percent slopes	Klinger	85	Moraines	No	---
	Kenyon mod. wet and similar so	5	---	No	---
	Maxfield and similar soils	5	Drainageways	Yes	2B3
	Racine mod. wet and similar so	5	---	No	---
219:					
Rolfe silt loam, depressional, 0 to 1 percent slopes	Rolfe, depressional	90	Moraines	Yes	2B3, 3
	Lerdal and similar soils	5	---	No	---
	Mazaska and similar soils	5	Flats	Yes	2B3
238B:					
Kilkenny loam, 2 to 6 percent slopes	Kilkenny	90	Moraines	No	---
	Lerdal and similar soils	5	---	No	---
	Mazaska and similar soils	5	Flats	Yes	2B3
238C2:					
Kilkenny clay loam, 6 to 12 percent slopes, eroded	Kilkenny, eroded	90	Moraines	No	---
	Lerdal and similar soils	5	---	No	---
	Mazaska and similar soils	5	Drainageways	Yes	2B3
238D2:					
Kilkenny clay loam, 12 to 18 percent slopes, eroded	Kilkenny, eroded	90	Moraines	No	---
	Lerdal and similar soils	5	---	No	---
	Mazaska and similar soils	5	Drainageways	Yes	2B3
238E:					
Kilkenny clay loam, 18 to 25 percent slopes	Kilkenny	90	Moraines	No	---
	Lerdal and similar soils	5	---	No	---
	Mazaska and similar soils	5	Drainageways	Yes	2B3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
238F:					
Kilkenny loam, 25 to 35 percent slopes	Kilkenny	90	Moraines	No	---
	Lerdal and similar soils	5	---	No	---
	Mazaska and similar soils	5	Drainageways	Yes	2B3
239:					
Le Sueur clay loam, 1 to 3 percent slopes	Le Sueur	85	Moraines	No	---
	Angus and similar soils	5	---	No	---
	Cordova and similar soils	5	Flats	Yes	2B3
	Hamel and similar soils	5	Drainageways	Yes	2B3
253:					
Maxcreek silty clay loam, 0 to 1 percent slopes	Maxcreek	90	Moraines	Yes	2B3
	Epsom and similar soils	5	Depressions	Yes	2B3, 3
	Nerwoods and similar soils	5	---	No	---
256:					
Mazaska clay loam, 0 to 2 percent slopes	Mazaska	85	Moraines	Yes	2B3
	Kilkenny and similar soils	5	---	No	---
	Lerdal and similar soils	5	---	No	---
	Rolfe and similar soils	5	Depressions	Yes	2B3, 3
285A:					
Port Byron silt loam, 0 to 2 percent slopes	Port Byron	90	Ridges	No	---
	Garwin and similar soils	5	Drainageways	Yes	2B3
	Littleton till sub.	5	---	No	---
285B:					
Port Byron silt loam, 2 to 6 percent slopes	Port Byron	90	Ridges	No	---
	Garwin and similar soils	5	Drainageways	Yes	2B3
	Littleton till sub.	5	---	No	---

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
301B:					
Lindstrom silt loam, 2 to 6 percent slopes	Lindstrom	85	Moraines	No	---
	Garwin and similar soils	5	Drainageways	Yes	2B3
	Littleton till sub.	5	---	No	---
	Terril mod. wet	5	---	No	---
301C:					
Lindstrom silt loam, 6 to 12 percent slopes	Lindstrom	85	Moraines	No	---
	Garwin and similar soils	5	Drainageways	Yes	2B3
	Littleton till sub.	5	---	No	---
	Terril mod. wet	5	---	No	---
307:					
Sargeant silt loam, 0 to 2 percent slopes	Sargeant	85	Moraines	Yes	2B3
	Kasson and similar soils	5	---	No	---
	Kenyon mod. wet and similar so	5	---	No	---
	Maxfield and similar soils	5	Drainageways	Yes	2B3
323:					
Shields silty clay loam, 0 to 2 percent slopes	Shields	85	Moraines	Yes	2B3
	Lerdal and similar soils	5	---	No	---
	Mazaska and similar soils	5	Flats	Yes	2B3
	Rolfe and similar soils	5	Depressions	Yes	2B3, 3
376B:					
Moland silt loam, 1 to 4 percent slopes	Moland	85	Moraines	No	---
	Garwin and similar soils	5	Drainageways	Yes	2B3
	Maxcreek and similar soils	5	Drainageways	Yes	2B3
	Merton and similar soils	5	---	No	---

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377:					
Merton silt loam, 1 to 3 percent slopes	Merton	85	Moraines	No	---
	Maxcreek and similar soils	5	Drainageways	Yes	2B3
	Moland and similar soils	5	---	No	---
	Nerwoods and similar soils	5	---	No	---
378:					
Maxfield silty clay loam, 0 to 2 percent slopes	Maxfield	85	Moraines	Yes	2B3
	Kenyon mod. wet and similar so	5	---	No	---
	Nerwoods and similar soils	5	---	No	---
	Racine mod. wet and similar so	5	---	No	---
382B:					
Blooming silt loam, 2 to 6 percent slopes	Blooming	85	Moraines	No	---
	Garwin and similar soils	5	Drainageways	Yes	2B3
	Littleton till sub.	5	---	No	---
	Maxfield and similar soils	5	Drainageways	Yes	2B3
382C2:					
Blooming silt loam, 6 to 12 percent slopes, eroded	Blooming, eroded	85	Moraines	No	---
	Garwin and similar soils	5	Drainageways	Yes	2B3
	Littleton till sub.	5	---	No	---
	Maxfield and similar soils	5	Drainageways	Yes	2B3
392:					
Biscay loam, 0 to 2 percent slopes	Biscay	85	Outwash plains	Yes	2B3
	Estherville and similar soils	5	---	No	---
	Kato and similar soils	5	Outwash plains	Yes	2B3
	Talcot and similar soils	5	Outwash terraces	Yes	2B3

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408: Faxon clay loam, 0 to 1 percent slopes	Faxon	95	Strath terraces	Yes	2B3
	Estherville and similar soils	5	---	No	---
411A: Waukegan silt loam, 0 to 2 percent slopes	Waukegan	85	Outwash plains	No	---
	Boone and similar soils	5	---	No	---
	Kato and similar soils	5	Outwash plains	Yes	2B3
	Littleton till sub.	5	---	No	---
411B: Waukegan silt loam, 2 to 6 percent slopes	Waukegan	85	Outwash plains	No	---
	Boone and similar soils	5	---	No	---
	Kato and similar soils	5	Outwash plains	Yes	2B3
	Littleton till sub.	5	---	No	---
414: Hamel loam, 1 to 3 percent slopes	Hamel	85	Moraines	Yes	2B3
	Glencoe and similar soils	5	Depressions	Yes	2B3, 3
	Lester and similar soils	5	---	No	---
	Lesueur and similar soils	5	---	No	---
463A: Minneiska fine sandy loam, 0 to 2 percent slopes, occasionally flooded	Minneiska, occasionally flooded	85	Flood plains	No	---
	Ankenney and similar soils	5	---	No	---
	Minneopa and similar soils	5	---	No	---
	Rushriver and similar soils	5	Flood plains	Yes	2B3

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484D:					
Eyota fine sandy loam, 12 to 18 percent slopes	Eyota	90	Structural benches	No	---
	Lindstrom and similar soils	5	---	No	---
	Racine and similar soils	5	---	No	---
523:					
Houghton muck, depressional, 0 to 1 percent slopes	Houghton, depressional	90	Depressions, Moraines	Yes	1, 3
	Glencoe and similar soils	5	Depressions	Yes	2B3, 3
	Muskego and similar soils	5	Depressions	Yes	1, 3
525:					
Muskego muck, depressional, 0 to 1 percent slopes	Muskego, depressional	90	Depressions, Moraines	Yes	1, 3
	Glencoe and similar soils	5	Depressions	Yes	2B3, 3
	Houghton and similar soils	5	Depressions	Yes	1, 3
528B:					
Klossner muck, seep land, 1 to 6 percent slopes	Klossner, seep land	85	Fens	Yes	1
	Glencoe and similar soils	5	Drainageways	Yes	2B3
	Hamel and similar soils	5	Drainageways	Yes	2B3
	Houghton and similar soils	5	Drainageways	Yes	2B3
529A:					
Ripon silt loam, 0 to 2 percent slopes	Ripon	85	Structural benches	No	---
	Boone and similar soils	5	---	No	---
	Brodale and similar soils	5	---	No	---
	Copaston and similar soils	5	---	No	---

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529B:					
Ripon silt loam, 2 to 6 percent slopes	Ripon	85	Structural benches	No	---
	Boone and similar soils	5	---	No	---
	Brodale and similar soils	5	---	No	---
	Copaston and similar soils	5	---	No	---
548:					
Medo muck, depressional, 0 to 1 percent slopes	Medo, depressional	85	Depressions, Moraines	Yes	1, 3
	Klossner and similar soils	10	Depressions	Yes	1, 3
	Rushriver and similar soils	5	Flood plains	Yes	2B3
572:					
Lowlein sandy loam, 1 to 5 percent slopes	Lowlein	90	Moraines	No	---
	Angus and similar soils	5	---	No	---
	Dickinson and similar soils	5	---	No	---
611D:					
Hawick sandy loam, 12 to 25 percent slopes	Hawick	85	Outwash plains	No	---
	Lester and similar soils	5	---	No	---
	Lowlein and similar soils	5	---	No	---
	Wadena and similar soils	5	---	No	---
757:					
Nerwoods loam, 2 to 6 percent slopes	Nerwoods	85	Moraines	No	---
	Epsom and similar soils	5	Depressions	Yes	2B3, 3
	Kenyon mod. wet and similar so	5	---	No	---
	Racine mod. wet and similar so	5	---	No	---

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761:					
Epsom silty clay loam, 0 to 2 percent slopes, frequently flooded	Epsom, frequently flooded	90	Flood plains	Yes	2B3, 3
	Maxfield and similar soils	5	Flood plains	Yes	2B3
	Nerwoods and similar soils	5	---	No	---
764:					
Klossner muck, 0 to 1 percent slopes, flooded	Klossner, frequently flooded	90	Flood plains	Yes	1, 3
	Medo and similar soils	5	Flood plains	Yes	1, 3
	Rushriver and similar soils	5	Flood plains	Yes	2B3
783C2:					
Lester-Kilkenny complex, 6 to 12 percent slopes, eroded	Lester, eroded	50	Moraines	No	---
	Kilkenny, eroded	40	Moraines	No	---
	Lerdal and similar soils	5	---	No	---
	Lesueur and similar soils	5	---	No	---
783D2:					
Lester-Kilkenny complex, 12 to 18 percent slopes, eroded	Lester, eroded	50	Moraines	No	---
	Kilkenny, eroded	40	Moraines	No	---
	Lerdal and similar soils	5	---	No	---
	Lesueur and similar soils	5	---	No	---
783E:					
Lester-Kilkenny complex, 18 to 25 percent slopes	Lester	45	Moraines	No	---
	Kilkenny	40	Moraines	No	---
	Lerdal and similar soils	5	---	No	---
	Lesueur and similar soils	5	---	No	---
	Mazaska and similar soils	5	Drainageways	Yes	2B3

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783F:					
Lester-Kilkenny complex, 25 to 35 percent slopes	Lester	45	Moraines	No	---
	Kilkenny	40	Moraines	No	---
	Lerdal and similar soils	5	---	No	---
	Lesueur and similar soils	5	---	No	---
	Mazaska and similar soils	5	Drainageways	Yes	2B3
849B:					
Urban land-Estherville complex, 1 to 6 percent slopes	Urban land	60	Outwash plains	No	---
	Estherville	40	Outwash plains	No	---
860C:					
Urban land-Hayden complex, 6 to 15 percent slopes	Urban land	60	Moraines	No	---
	Hayden	40	Moraines	No	---
875B:					
Hawick-Estherville complex, 2 to 6 percent slopes	Hawick	55	Outwash plains	No	---
	Estherville	35	Outwash plains	No	---
	Angus and similar soils	5	---	No	---
	Lowlein and similar soils	5	---	No	---
875C:					
Hawick-Estherville complex, 6 to 12 percent slopes	Hawick	60	Outwash plains	No	---
	Estherville	25	Outwash plains	No	---
	Dickinson and similar soils	5	---	No	---
	Lester and similar soils	5	---	No	---
	Lowlein and similar soils	5	---	No	---

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945C2:					
Lester-Storden complex, 6 to 12 percent slopes, eroded	Lester, eroded	65	Moraines	No	---
	Storden, eroded	20	Moraines	No	---
	Angus and similar soils	5	---	No	---
	Hamel and similar soils	5	Drainageways	Yes	2B3
	Lesueur and similar soils	5	---	No	---
945D2:					
Lester-Storden complex, 12 to 18 percent slopes, eroded	Lester, eroded	65	Moraines	No	---
	Storden, eroded	20	Moraines	No	---
	Angus and similar soils	5	---	No	---
	Hamel and similar soils	5	Drainageways	Yes	2B3
	Lesueur and similar soils	5	---	No	---
963C2:					
Timula-Bold complex, 6 to 12 percent slopes, eroded	Timula, eroded	55	Ridges	No	---
	Bold, eroded	35	Ridges	No	---
	Garwin and similar soils	5	Drainageways	Yes	2B3
	Racine mod. wet and similar so	5	---	No	---
963D2:					
Timula-Bold complex, 12 to 18 percent slopes, eroded	Timula, eroded	55	Ridges	No	---
	Bold, eroded	35	Ridges	No	---
	Garwin and similar soils	5	Drainageways	Yes	2B3
	Racine and similar soils	5	---	No	---
1013:					
Pits, quarry	Pits, quarry	100	Structural benches	No	---

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1016:					
Udorthents, loamy (cut and fill land)	Udorthents, loamy	85	Moraines	No	---
	Hawick and similar soils	5	---	No	---
	Hayden and similar soils	5	---	No	---
	Lester and similar soils	5	---	No	---
1030:					
Pits, gravel-Udipsamments complex	Pits, gravel	45	Outwash plains	No	---
	Udipsamments	45	Outwash plains	No	---
	Estherville and similar soils	10	---	No	---
1058:					
Houghton and Muskego soils, ponded, 0 to 1 percent slopes	Houghton, ponded	45	Depressions, Moraines	Yes	1, 3
	Muskego, ponded	45	Depressions, Moraines	Yes	1, 3
	Cordova and similar soils	5	Flats	Yes	2B3
	Mazaska and similar soils	5	Flats	Yes	2B3
1080:					
Klossner, Okoboji, and Glencoe soils, ponded, 0 to 1 percent slopes	Glencoe, ponded	30	Depressions, Moraines	Yes	2B3, 3
	Klossner, ponded	30	Depressions, Moraines	Yes	1, 3
	Okoboji, ponded	30	Depressions, Moraines	Yes	2B3, 3
	Cordova and similar soils	5	Flats	Yes	2B3
	Mazaska and similar soils	5	Flats	Yes	2B3
1116F:					
Brodale-Eyota complex, 12 to 35 percent slopes	Brodale	55	Structural benches	No	---
	Eyota	35	Structural benches	No	---
	Boone and similar soils	5	---	No	---
	Copaston and similar soils	5	---	No	---

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1286:					
Prinsburg silty clay loam, 0 to 2 percent slopes	Prinsburg	85	Moraines	Yes	2B3
	Kenyon mod. wet and similar so	5	---	No	---
	Maxfield and similar soils	5	Drainageways	Yes	2B3
	Nerwoods and similar soils	5	---	No	---
1356:					
Water, miscellaneous	Water, miscellaneous	100	---		---
	Lester and similar soils	5	---	No	---
1360:					
Rushriver fine sandy loam, 0 to 1 percent slopes, frequently flooded	Rushriver, frequently flooded	85	Flood plains	Yes	2B3, 4
	Houghton and similar soils	5	Flood plains	Yes	1, 4
	Klossner and similar soils	5	Flood plains	Yes	1, 4
	Medo and similar soils	5	Flood plains	Yes	1, 4
1361:					
Le Sueur loam, moderately coarse substratum, 1 to 3 percent slopes	Le Sueur, moderately coarse substratum	90	Moraines	No	---
	Dundas mod. coarse sub.	5	---	No	---
	Hayden and similar soils	5	---	No	---
1362B:					
Angus loam, 2 to 5 percent slopes	Angus	85	Moraines	No	---
	Cordova and similar soils	5	Drainageways	Yes	2B3
	Lester and similar soils	5	---	No	---
	Lesueur and similar soils	5	---	No	---

Hydric Soils

Rice County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1363:					
Dundas silt loam, moderately coarse substratum, 0 to 2 percent slopes	Dundas, moderately coarse substratum	85	Moraines	No	---
	Cordova and similar soils	5	Flats	Yes	2B3
	Hayden and similar soils	5	---	No	---
	Lesueur mod. coarse sub.	5	---	No	---
1366:					
Talcot silty clay loam, 0 to 1 percent slopes	Talcot	90	Outwash plains	Yes	2B3
	Dickinson and similar soils	5	---	No	---
	Kato and similar soils	5	Outwash plains	Yes	2B3
1367:					
Derrynane clay loam, 1 to 3 percent slopes	Derrynane	85	Moraines	Yes	2B3
	Hamel and similar soils	5	Drainageways	Yes	2B3
	Lerdal and similar soils	5	---	No	---
	Mazaska and similar soils	5	Flats	Yes	2B3
1387A:					
Collinwood silty clay loam, moderately wet, 0 to 3 percent slopes	Collinwood, moderately wet	90	Moraines	No	---
	Derrynane and similar soils	5	Drainageways	Yes	2B3
	Okoboji and similar soils	5	Depressions	Yes	2B3, 3
1388B:					
Terril loam, moderately wet, 2 to 6 percent slopes	Terril, moderately wet	85	Moraines	No	---
	Hamel and similar soils	5	Drainageways	Yes	2B3
	Lester and similar soils	5	---	No	---
	Lesueur and similar soils	5	---	No	---

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1408B:					
Angus-Kilkenny complex, 2 to 6 percent slopes	Angus	50	Moraines	No	---
	Kilkenny	40	Moraines	No	---
	Lerdal and similar soils	5	---	No	---
	Lester and similar soils	5	---	No	---
1409A:					
Kenyon silt loam, moderately wet, 0 to 3 percent slopes	Kenyon, moderately wet	90	Moraines	No	---
	Maxfield and similar soils	5	Drainageways	Yes	2B3
	Racine mod. wet and similar so	5	---	No	---
1409B:					
Kenyon silt loam, moderately wet, 3 to 6 percent slopes	Kenyon, moderately wet	90	Moraines	No	---
	Maxfield and similar soils	5	Drainageways	Yes	2B3
	Racine mod. wet and similar so	5	---	No	---
1410B:					
Racine silt loam, moderately wet, 2 to 6 percent slopes	Racine, moderately wet	90	Moraines	No	---
	Kilkenny and similar soils	5	---	No	---
	Maxfield and similar soils	5	Drainageways	Yes	2B3
1410C:					
Racine silt loam, moderately wet, 6 to 12 percent slopes, eroded	Racine, moderately wet, eroded	90	Moraines	No	---
	Kilkenny and similar soils	5	---	No	---
	Maxfield and similar soils	5	Drainageways	Yes	2B3
1411B:					
Urban land-Hayden-Estherville complex, 1 to 6 percent slopes	Urban land	50	Moraines	No	---
	Hayden	30	Moraines	No	---
	Estherville	20	Moraines	No	---

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1413B:					
Littleton silt loam, till substratum, 1 to 4 percent slopes	Littleton, till substratum	90	Moraines	No	---
	Garwin and similar soils	5	Drainageways	Yes	2B3
	Lindstrom and similar soils	5	---	No	---
1416C:					
Renova loam, moderately wet, 6 to 12 percent slopes	Renova, moderately wet	90	Moraines	No	---
	Kasson	5	---	No	---
	Sargeant	5	---	Yes	2B3
1437B:					
Renova silt loam, moderately wet, 2 to 6 percent slopes	Renova, moderately wet	90	Moraines	No	---
	Kenyon mod. wet and similar so	5	---	No	---
	Maxfield and similar soils	5	Drainageways	Yes	2B3
1501:					
Klossner mucky silty clay loam, overwash, 0 to 1 percent slopes	Klossner, overwash	85	Depressions, Moraines	Yes	1, 3
	Glencoe and similar soils	5	Depressions	Yes	2B3, 3
	Houghton and similar soils	5	Depressions	Yes	1, 3
	Muskego and similar soils	5	Depressions	Yes	1, 3
1831:					
Colo silt loam, channeled, 0 to 2 percent slopes, frequently flooded	Colo, channeled, frequently flooded	85	Flood plains	Yes	2B3, 4
	Garwin and similar soils	5	Flood plains	Yes	2B3
	Minneiska and similar soils	5	---	No	---
	Rushriver and similar soils	5	Flood plains	Yes	2B3

Hydric Soils

Rice County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1962: Mazaska-Rolfe complex, 0 to 2 percent slopes	Mazaska	50	Moraines	Yes	2B3
	Rolfe	35	Moraines	Yes	2B3, 3
	Cordova and similar soils	5	Flats	Yes	2B3
	Lerdal and similar soils	5	---	No	---
	Okoboji and similar soils	5	Depressions	Yes	2B3, 3
W: Water	Water	100	---		---

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.

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