Hydric Soils

Renville 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
27A:					
Dickinson loam, 0 to 2 percent slopes	Dickinson	90	Outwash plains, Terraces	No	---
	Hanska	5	Flats	Yes	2B3
	Lemond	5	Flats	Yes	2B3
27B:					
Dickinson loam, 2 to 6 percent slopes	Dickinson	90	Outwash plains, Terraces	No	---
	Hanska	5	Flats	Yes	2B3
	Lemond	5	Flats	Yes	2B3
35:					
Blue Earth mucky silt loam, 0 to 1 percent slopes	Blue Earth	95	Depressions, Relict lakebeds	Yes	2B3, 3
	Canisteo	5	Rims	Yes	2B3
39A:					
Wadena loam, 0 to 2 percent slopes	Wadena	90	Outwash plains, Terraces	No	---
	Biscay	10	Drainageways	Yes	2B3
39B:					
Wadena loam, 2 to 6 percent slopes	Wadena	90	Outwash plains, Terraces	No	---
	Biscay	10	Drainageways	Yes	2B3
85:					
Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	Calco, occasionally flooded	85	Flood plains	Yes	2B3
	Nishna	10	Flood plains	Yes	2B3
	Havelock	5	Flood plains	Yes	2B3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
86:					
Canisteo clay loam, moderately fine substratum, 0 to 2 percent slopes	Canisteo	85	Depressions, Flats, Moraines, Rims	Yes	2B3
	Glencoe	10	Depressions	Yes	2B3, 3
	Okoboji	5	Depressions	Yes	2B3, 3
94C:					
Terril loam, 6 to 12 percent slopes	Terril	85	Hills, Moraines	No	---
	Delft	15	Drainageways	Yes	2B3
102B:					
Clarion loam, moderately fine substratum, 2 to 5 percent slopes	Clarion	85	Hills, Moraines	No	---
	Webster	10	Drainageways	Yes	2B3
	Glencoe	5	Depressions	Yes	2B3, 3
112:					
Harps clay loam, 0 to 2 percent slopes	Harps	85	Depressions, Moraines, Rims	Yes	2B3
	Okoboji	10	Depressions	Yes	2B3, 3
	Seaforth	5	Moraines	No	---
113:					
Webster clay loam, 0 to 2 percent slopes	Webster	85	Flats, Moraines	Yes	2B3
	Glencoe	5	Depressions	Yes	2B3, 3
	Nicollet	5	Moraines	No	---
	Normania	5	Moraines	No	---
118:					
Crippin loam, moderately fine substratum, 1 to 3 percent slopes	Crippin	85	Moraines, Rises	No	---
	Canisteo	10	Rims	Yes	2B3
	Glencoe	5	Depressions	Yes	2B3, 3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
128C2:					
Grogan silt loam, 6 to 15 percent slopes, eroded	Grogan, eroded	85	Outwash plains, Terraces	No	---
	Delft	10	Drainageways	Yes	2B3
	Terril	5	Moraines	No	---
130:					
Nicollet clay loam, 1 to 3 percent slopes	Nicollet	85	Moraines, Rises	No	---
	Webster	10	Drainageways	Yes	2B3
	Glencoe	5	Depressions	Yes	2B3, 3
134:					
Okoboji silty clay loam, depressional, 0 to 1 percent slopes	Okoboji, depressional	85	Depressions, Moraines	Yes	2B3, 3
	Canisteo	5	Rims	Yes	2B3
	Harps	5	Rims	Yes	2B3
	Klossner	5	Depressions	Yes	1, 3
156:					
Fairhaven silt loam, 0 to 2 percent slopes	Fairhaven	85	Outwash plains, Terraces	No	---
	Biscay	10	Drainageways	Yes	2B3
	Hanska	5	Flats	Yes	2B3
227:					
Lemond loam, 0 to 2 percent slopes	Lemond	85	Flats, Outwash plains	Yes	2B3
	Biscay	5	Drainageways	Yes	2B3
	Linder	5	Outwash plains	No	---
	Mayer	5	Flats	Yes	2B3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
247:					
Linder loam, 0 to 2 percent slopes	Linder	85	Outwash plains, Terraces	No	---
	Biscay	10	Drainageways	Yes	2B3
	Mayer	5	Flats	Yes	2B3
255:					
Mayer loam, 0 to 2 percent slopes	Mayer	85	Flats, Outwash plains	Yes	2B3
	Biscay	10	Drainageways	Yes	2B3
	Linder	5	Outwash plains	No	---
282:					
Hanska loam, 0 to 2 percent slopes	Hanska	85	Flats, Outwash plains	Yes	2B3
	Biscay	5	Drainageways	Yes	2B3
	Linder	5	Outwash plains	No	---
	Mayer	5	Flats	Yes	2B3
318:					
Mayer clay loam, depressional, 0 to 1 percent slopes	Mayer, depressional	85	Depressions, Outwash plains	Yes	2B3, 3
	Biscay	5	Drainageways	Yes	2B3
	Estherville	5	Outwash plains	No	---
	Linder	5	Outwash plains	No	---
327A:					
Dickman sandy loam, 0 to 2 percent slopes	Dickman	90	Outwash plains, Terraces	No	---
	Biscay	5	Drainageways	Yes	2B3
	Hanska	5	Flats	Yes	2B3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
327B:					
Dickman sandy loam, 2 to 6 percent slopes	Dickman	85	Outwash plains, Terraces	No	---
	Biscay	5	Drainageways	Yes	2B3
	Hanska	5	Flats	Yes	2B3
	Linder	5	Outwash plains	No	---
327C:					
Dickman sandy loam, 6 to 12 percent slopes	Dickman	85	Outwash plains, Terraces	No	---
	Biscay	5	Drainageways	Yes	2B3
	Hanska	5	Flats	Yes	2B3
	Linder	5	Outwash plains	No	---
336:					
Delft loam, 1 to 3 percent slopes	Delft	85	Drainageways, Moraines	Yes	2B3
	Glencoe	10	Depressions	Yes	2B3, 3
	Webster	5	Drainageways	Yes	2B3
386:					
Okoboji mucky silty clay loam, depressional, 0 to 1 percent slopes	Okoboji, depressional	85	Depressions, Moraines	Yes	2B3, 3
	Blue Earth	5	Depressions	Yes	1, 3
	Harps	5	Rims	Yes	2B3
	Klossner	5	Depressions	Yes	1, 3
392:					
Biscay loam, 0 to 2 percent slopes	Biscay	85	Flats, Outwash plains	Yes	2B3
	Estherville	5	Outwash plains	No	---
	Linder	5	Outwash plains	No	---
	Mayer	5	Flats	Yes	2B3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
423:					
Seaforth loam, 1 to 3 percent slopes	Seaforth	85	Moraines, Rises	No	---
	Canisteo	10	Rims	Yes	2B3
	Okoboji	5	Depressions	Yes	2B3, 3
446:					
Normania loam, 1 to 3 percent slopes	Normania	85	Moraines, Rises	No	---
	Webster	10	Drainageways	Yes	2B3
	Glencoe	5	Depressions	Yes	2B3, 3
463A:					
Minneiska silt loam, 0 to 2 percent slopes, occasionally flooded	Minneiska, occasionally flooded	85	Outwash plains	No	---
	Rushriver	10	Flood plains	Yes	2B3
	Du Page	5	Flood plains	No	---
463B:					
Minneiska loam, 1 to 4 percent slopes, rarely flooded	Minneiska, rarely flooded	85	Outwash plains	No	---
	Du Page	5	Flood plains	No	---
	Havelock	5	Flood plains	Yes	2B3
	Terril	5	Moraines	No	---
519:					
Klossner muck, depressional, calcareous, 0 to 1 percent slopes	Klossner, depressional, calcareous	85	Depressions, Moraines	Yes	1, 3
	Harps	5	Rims	Yes	2B3
	Muskego	5	Depressions	Yes	1, 3
	Okoboji	5	Depressions	Yes	2B3, 3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
525:					
Muskego muck, depressional, 0 to 1 percent slopes	Muskego, depressional	90	Depressions, Moraines	Yes	1, 3
	Blue Earth	5	Depressions	Yes	1, 3
	Okoboji	5	Depressions	Yes	2B3, 3
574:					
Du Page loam, 0 to 2 percent slopes, occasionally flooded	Du Page, occasionally flooded	85	Flood plains	No	---
	Havelock	5	Flood plains	Yes	2B3
	Nishna	5	Flood plains	Yes	2B3
	Rushriver	5	Flood plains	Yes	2B3
575:					
Nishna silty clay, 0 to 2 percent slopes, occasionally flooded	Nishna, occasionally flooded	85	Flood plains	Yes	2B3
	Du Page	5	Flood plains	No	---
	Havelock	5	Flood plains	Yes	2B3
	Rushriver	5	Flood plains	Yes	2B3
595F:					
Swanlake loam, 18 to 50 percent slopes	Swanlake	85	Hills, Moraines	No	---
	Delft	10	Drainageways	Yes	2B3
	Terril	5	Moraines	No	---
610:					
Calco silty clay loam, 0 to 1 percent slopes, frequently flooded	Calco, frequently flooded	90	Flood plains	Yes	2B3
	Rushriver	10	Flood plains	Yes	2B3
770C2:					
Ves-Terril complex, 6 to 15 percent slopes, eroded	Ves, eroded	60	Hills, Moraines	No	---
	Terril	30	Hills, Moraines	No	---
	Delft	10	Drainageways	Yes	2B3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
810:					
Coriff-Fieldon complex, 0 to 2 percent slopes	Coriff	50	Flats, Outwash plains	Yes	2B3
	Fieldon	45	Flats, Outwash plains	Yes	2B3
	Hanska	5	Flats	Yes	2B3
817:					
Canisteo-Seaforth complex, 0 to 3 percent slopes	Canisteo	60	Depressions, Flats, Moraines, Rims	Yes	2B3
	Seaforth	30	Moraines, Rises	No	---
	Okoboji	10	Depressions	Yes	2B3, 3
875C:					
Hawick-Estherville complex, 6 to 12 percent slopes	Hawick	60	Outwash plains, Terraces	No	---
	Estherville	25	Outwash plains, Terraces	No	---
	Biscay	5	Drainageways	Yes	2B3
	Linder	5	Outwash plains	No	---
	Wadena	5	Outwash plains	No	---
887B:					
Clarion-Swanlake complex, 2 to 6 percent slopes	Clarion	70	Hills, Moraines	No	---
	Swanlake	20	Hills, Moraines	No	---
	Webster	10	Drainageways	Yes	2B3
899:					
Harps-Okoboji, depressional, complex, 0 to 2 percent slopes	Harps	60	Depressions, Moraines, Rims	Yes	2B3
	Okoboji, depressional	30	Depressions, Moraines	Yes	2B3, 3
	Canisteo	5	Depressions	Yes	2B3
	Seaforth	5	Moraines	No	---

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
920B:					
Clarion-Storden-Hawick complex, 2 to 6 percent slopes	Clarion	50	Hills, Moraines	No	---
	Storden	20	Hills, Moraines	No	---
	Hawick	15	Hills, Moraines	No	---
	Webster	10	Drainageways	Yes	2B3
	Glencoe	5	Depressions	Yes	2B3, 3
927:					
Harps-Seaforth-Okoboji, depressional, complex, 0 to 3 percent slopes	Harps	40	Depressions, Moraines, Rims	Yes	2B3
	Seaforth	30	Moraines, Rises	No	---
	Okoboji, depressional	25	Depressions, Moraines	Yes	2B3, 3
	Canisteo	5	Depressions	Yes	2B3
954C2:					
Ves-Storden complex, 6 to 12 percent slopes, eroded	Ves, eroded	65	Hills, Moraines	No	---
	Storden, eroded	25	Hills, Moraines	No	---
	Delft	10	Drainageways	Yes	2B3
956:					
Canisteo-Glencoe, depressional, complex, 0 to 2 percent slopes	Canisteo	65	Depressions, Flats, Moraines, Rims	Yes	2B3
	Glencoe, depressional	25	Depressions, Moraines	Yes	2B3, 3
	Crippin	5	Moraines	No	---
	Harps	5	Depressions	Yes	2B3
960D2:					
Storden-Omsrud complex, 12 to 18 percent slopes, eroded	Storden, eroded	65	Hills, Moraines	No	---
	Omsrud, eroded	20	Hills, Moraines	No	---
	Delft	10	Drainageways	Yes	2B3
	Terril	5	Moraines	No	---

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
960F:					
Storden-Omsrud complex, 18 to 50 percent slopes	Storden	70	Hills, Moraines	No	---
	Omsrud	15	Hills, Moraines	No	---
	Delft	10	Drainageways	Yes	2B3
	Terril	5	Moraines	No	---
978:					
Cordova-Rolfe, depressional, complex, 0 to 2 percent slopes	Cordova	60	Flats, Moraines	Yes	2B3
	Rolfe, depressional	30	Depressions, Moraines	Yes	2B3, 3
	Nicollet	10	Moraines	No	---
999C2:					
Ves-Storden-Hawick complex, 6 to 12 percent slopes, eroded	Storden, eroded	35	Hills, Moraines	No	---
	Ves, eroded	35	Hills, Moraines	No	---
	Delft	15	Drainageways	Yes	2B3
	Hawick	15	Hills, Moraines	No	---
1030:					
Pits, gravel-Udipsamments complex	Pits, gravel	45	Outwash plains		---
	Udipsamments	45	Outwash plains	No	---
	Biscay	10	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
	Harps	10	Depressions	Yes	2B3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1100:					
Nicollet silty clay loam, 1 to 3 percent slopes	Nicollet	85	Moraines, Rises	No	---
	Webster	10	Drainageways	Yes	2B3
	Okoboji	5	Depressions	Yes	2B3, 3
1101:					
Webster silty clay loam, moderately fine substratum, 0 to 2 percent slopes	Webster	90	Flats, Moraines	Yes	2B3
	Nicollet	5	Moraines	No	---
	Okoboji	5	Depressions	Yes	2B3, 3
1205:					
Leen-Okoboji, depressional, complex, 0 to 2 percent slopes	Leen	60	Depressions, Flats, Lake plains, Rims	Yes	2B3
	Okoboji, depressional	30	Depressions	Yes	2B3, 3
	Louris	10	Moraines	No	---
1242F:					
Swanlake-Terril complex, 18 to 50 percent slopes	Swanlake	50	Hills, Moraines	No	---
	Terril	40	Hills, Moraines	No	---
	Delft	10	Drainageways	Yes	2B3
1261B:					
Bechyn loam, 2 to 6 percent slopes	Bechyn	85	Terraces	No	---
	Cedarrock	15	Flood plains	Yes	2B3
1262:					
Seaforth silt loam, 1 to 3 percent slopes	Seaforth	85	Moraines, Rises	No	---
	Canisteo	5	Rims	Yes	2B3
	Chetomba	5	Drainageways	Yes	2B3
	Okoboji	5	Depressions	Yes	2B3, 3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1267:					
Cedarrock silty clay loam, 0 to 2 percent slopes, frequently flooded	Cedarrock, frequently flooded	85	Flood plains	Yes	2B3
	Havelock	10	Flood plains	Yes	2B3
	Nishna	5	Flood plains	Yes	2B3
1268:					
Hanlon loam, 1 to 3 percent slopes, rarely flooded	Hanlon, rarely flooded	85	Flood plains	No	---
	Coland	10	Flood plains	Yes	2B3
	Havelock	5	Flood plains	Yes	2B3
1269:					
Lowlein silt loam, 0 to 2 percent slopes	Lowlein	85	Outwash plains	No	---
	Biscay	10	Drainageways	Yes	2B3
	Hanska	5	Flats	Yes	2B3
1270D:					
Bechyn-Rock outcrop complex, 0 to 40 percent slopes	Bechyn	65	Terraces	No	---
	Rock outcrop	25	Terraces		---
	Cedarrock	5	Flood plains	Yes	2B3
	Delft	5	Drainageways	Yes	2B3
1285:					
Chetomba silty clay loam, 0 to 2 percent slopes	Chetomba	85	Flats, Lake plains	Yes	2B3
	Crooksford	5	Lake plains	No	---
	Okoboji	5	Depressions	Yes	2B3, 3
	Prinsburg	5	Rims	Yes	2B3
1286:					
Prinsburg silty clay loam, 0 to 2 percent slopes	Prinsburg	85	Flats, Lake plains	Yes	2B3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1287:					
Calco silty clay loam, ponded, 0 to 1 percent slopes, frequently flooded	Calco, ponded, frequently flooded	85	Flood plains	Yes	2B3
	Nishna	10	Flood plains	Yes	2B3
	Prinsburg	5	Flood plains	Yes	2B3
1355B:					
Amiret-Swanlake complex, 2 to 6 percent slopes	Amiret	70	Hills, Moraines	No	---
	Swanlake	20	Hills, Moraines	No	---
	Okoboji	5	Depressions	Yes	2B3, 3
	Webster	5	Drainageways	Yes	2B3
1369A:					
Crooksford silt loam, 1 to 3 percent slopes	Crooksford	90	Hills, Moraines	No	---
	Chetomba	5	Flats	Yes	2B3
	Okoboji	5	Depressions	Yes	2B3, 3
1369B:					
Crooksford silt loam, 3 to 5 percent slopes	Crooksford	85	Hills, Moraines	No	---
	Chetomba	10	Flats	Yes	2B3
	Okoboji	5	Depressions	Yes	2B3, 3
1370B:					
Amiret loam, 2 to 5 percent slopes	Amiret	85	Hills, Moraines	No	---
	Chetomba	10	Flats	Yes	2B3
	Okoboji	5	Depressions	Yes	2B3, 3
1371B:					
Crooksford-Swanlake complex, 3 to 6 percent slopes	Crooksford	60	Hills, Moraines	No	---
	Swanlake	30	Hills, Moraines	No	---
	Chetomba	5	Flats	Yes	2B3
	Webster	5	Drainageways	Yes	2B3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1373C:					
Omsrud-Storden-Hawick complex, 6 to 12 percent slopes, eroded	Omsrud, eroded	45	Hills, Moraines	No	---
	Storden, eroded	30	Hills, Moraines	No	---
	Hawick, eroded	15	Hills, Moraines	No	---
	Delft	10	Drainageways	Yes	2B3
1374:					
Havelock clay loam, 0 to 2 percent slopes, occasionally flooded	Havelock, occasionally flooded	85	Flood plains	Yes	2B3
	Calco	10	Flood plains	Yes	2B3
	Rushriver	5	Flood plains	Yes	2B3
1375D:					
Storden-Ves complex, 12 to 18 percent slopes, eroded	Storden, eroded	60	Hills, Moraines	No	---
	Ves, eroded	30	Hills, Moraines	No	---
	Delft	5	Drainageways	Yes	2B3
	Terril	5	Moraines	No	---
1376C:					
Omsrud-Storden complex, 6 to 12 percent slopes, eroded	Omsrud, eroded	50	Hills, Moraines	No	---
	Storden, eroded	40	Hills, Moraines	No	---
	Delft	10	Drainageways	Yes	2B3
1382:					
Louris silt loam, 1 to 3 percent slopes	Louris	85	Moraines, Rises	No	---
	Leen	10	Rims	Yes	2B3
	Okoboji	5	Depressions	Yes	2B3, 3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1386B:					
Amiret-Swanlake-Hawick complex, 2 to 6 percent slopes	Amiret	40	Hills, Moraines	No	---
	Swanlake	30	Hills, Moraines	No	---
	Hawick	15	Hills, Moraines	No	---
	Webster	10	Drainageways	Yes	2B3
	Glencoe	5	Depressions	Yes	2B3, 3
1388B:					
Terril loam, moderately wet, 2 to 6 percent slopes	Terril, moderately wet	90	Hills, Moraines	No	---
	Delft	10	Drainageways	Yes	2B3
1389:					
Havelock silt loam, 0 to 2 percent slopes, frequently flooded	Havelock, frequently flooded	85	Flood plains	Yes	2B3
	Rushriver	10	Flood plains	Yes	2B3
	Nishna	5	Flood plains	Yes	2B3
1390:					
Leen silty clay loam, 0 to 2 percent slopes	Leen	85	Depressions, Flats, Lake plains, Rims	Yes	2B3
	Okoboji	10	Depressions	Yes	2B3, 3
	Louris	5	Moraines	No	---
1392B:					
Grogan silt loam, moderately wet, 1 to 4 percent slopes	Grogan, moderately wet	90	Outwash plains, Terraces	No	---
	Bechyn	5	Terraces	No	---
	Chetomba	5	Flats	Yes	2B3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1802:					
Calcousta-Okoboji complex, depressional, 0 to 1 percent slopes	Calcousta	50	Depressions, Moraines	Yes	2B3, 3
	Okoboji, depressional	40	Depressions, Moraines	Yes	2B3, 3
	Canisteo	5	Rims	Yes	2B3
	Harps	5	Rims	Yes	2B3
1833:					
Coland clay loam, 0 to 2 percent slopes, occasionally flooded	Coland, occasionally flooded	85	Flood plains	Yes	2B3
	Havelock	10	Flood plains	Yes	2B3
	Biscay	5	Drainageways	Yes	2B3
1834:					
Coland clay loam, 0 to 2 percent slopes, frequently flooded	Coland, frequently flooded	85	Flood plains	Yes	2B3
	Havelock	10	Flood plains	Yes	2B3
	Biscay	5	Drainageways	Yes	2B3
1845A:					
Estherville loam, 0 to 2 percent slopes	Estherville	90	Outwash plains, Terraces	No	---
	Biscay	5	Drainageways	Yes	2B3
	Linder	5	Outwash plains	No	---
1845B:					
Estherville loam, 2 to 6 percent slopes	Estherville	90	Outwash plains, Terraces	No	---
	Biscay	5	Drainageways	Yes	2B3
	Linder	5	Outwash plains	No	---

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
1900:					
Okoboji-Canisteo complex, depressional, 0 to 1 percent slopes	Okoboji, depressional	70	Depressions, Moraines	Yes	2B3, 3
	Canisteo, depressional	15	Depressions, Moraines	Yes	2B3, 3
	Harps	10	Rims	Yes	2B3
	Seaforth	5	Moraines	No	---
1917:					
Nishna silty clay loam, 0 to 1 percent slopes, frequently flooded	Nishna, frequently flooded	85	Flood plains	Yes	2B3, 3
	Rushriver	10	Flood plains	Yes	2B3
	Havelock	5	Flood plains	Yes	2B3
1958:					
Danube silty clay, 0 to 2 percent slopes	Danube	85	Flats, Outwash plains	Yes	2B3
	Linder	5	Outwash plains	No	---
	Mayer	5	Depressions	Yes	2B3, 3
	Wadena	5	Outwash plains	No	---
1999:					
Minneiska-Rushriver complex, 0 to 2 percent slopes, frequently flooded	Minneiska, frequently flooded	55	Outwash plains	No	---
	Rushriver, frequently flooded	35	Flood plains	Yes	2B3, 4
	Havelock	10	Flood plains	Yes	2B3
L13A:					
Klossner muck, depressional, 0 to 1 percent slopes	Klossner, drained	80	Depressions, Moraines	Yes	1, 3
	Mineral soil, drained	15	Depressions, Moraines	Yes	2B3, 3
	Houghton, drained	5	Depressions, Moraines	Yes	1, 3

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L33A:					
Kandiyohi clay, 0 to 2 percent slopes	Kandiyohi	80	Flats, Moraines, Rises	No	---
	Cosmos	10	Flats, Moraines, Swales	Yes	2B3
	Arkton	5	Hills, Moraines	No	---
	Lura, firm substratum, depressional	5	Depressions, Moraines	Yes	2B3, 3
L33B:					
Kandiyohi clay, 2 to 5 percent slopes	Kandiyohi	80	Hills, Moraines	No	---
	Strout	10	Hills, Moraines	No	---
	Arkton	5	Hills, Moraines	No	---
	Cosmos	5	Flats, Moraines, Swales	Yes	2B3
L34A:					
Cosmos silty clay, 0 to 2 percent slopes	Cosmos	85	Flats, Moraines, Swales	Yes	2B3
	Corvuso	5	Depressions, Flats, Moraines, Rims	Yes	2B3
	Kandiyohi	5	Flats, Moraines, Rises	No	---
	Lura, firm substratum, depressional	5	Depressions, Moraines	Yes	2B3, 3
L83A:					
Webster clay loam, 0 to 2 percent slopes	Webster	65	Flats, Moraines, Swales	Yes	2B3
	Glencoe, depressional	14	Depressions, Moraines	Yes	2B3, 3
	Canisteo	8	Depressions, Flats, Moraines, Rims	Yes	2B3
	Nicollet	8	Flats, Moraines, Rises	No	---
	Poorly drained soil	5	Flats, Moraines, Swales	Yes	2B3

Hydric Soils

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L85A:					
Nicollet clay loam, 1 to 3 percent slopes	Nicollet	85	Flats, Moraines, Rises	No	---
	Clarion	10	Hills, Moraines	No	---
	Webster	5	Flats, Moraines, Swales	Yes	2B3
L107A:					
Canisteo-Glencoe, depressional complex, 0 to 2 percent slopes	Canisteo	50	Moraines, Rims	Yes	3
	Glencoe, depressional	35	Depressions, Moraines	Yes	2B3, 3
	Harps	9	Moraines, Rims	Yes	2B3
	Canisteo, depressional	3	Depressions, Moraines	Yes	2B3, 3
	Crippin	3	Flats, Moraines, Rises	No	---
L163A:					
Okoboji silty clay loam, depressional, 0 to 1 percent slopes	Okoboji, depressional	92	Lake plains, Moraines	Yes	2B3, 3
	Canisteo	2	Depressions, Flats, Moraines, Rims	Yes	2B3
	Harpster	2	Lake plains	Yes	2B3
	Knoke, depressional	2	Lake plains	Yes	2B3, 3
	Prinsburg	2	Depressions, Flats, Lake plains, Moraines, Rims	Yes	2B3
L164A:					
Lura silty clay, depressional, firm substratum, 0 to 1 percent slopes	Lura, firm substratum, depressional	90	Depressions, Moraines	Yes	2B3, 3
	Corvuso	5	Depressions, Flats, Moraines, Rims	Yes	2B3
	Cosmos	5	Flats, Moraines, Swales	Yes	2B3

Hydric Soils

Renville County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L166C2:					
Newlondon-Strout complex, 6 to 12 percent slopes, moderately eroded	Newlondon, moderately eroded	45	Hills, Moraines	No	---
	Strout, moderately eroded	45	Hills, Moraines	No	---
	Danielson, overwash	10	Drainageways, Moraines, Swales	No	---
L179A:					
Corvuso-Lura, depressional, firm substratum complex, 0 to 2 percent slopes	Corvuso	60	Depressions, Flats, Moraines, Rims	Yes	2B3
	Lura, firm substratum, depressional	30	Depressions, Moraines	Yes	2B3, 3
	Cosmos	5	Flats, Moraines, Swales	Yes	2B3
	Kandiyohi	5	Flats, Moraines, Rises	No	---
L184A:					
Corvuso silty clay loam, 0 to 2 percent slopes	Corvuso	85	Depressions, Flats, Moraines, Rims	Yes	2B3
	Lura, firm substratum, depressional	10	Depressions, Moraines	Yes	2B3, 3
	Cosmos	5	Flats, Moraines, Swales	Yes	2B3
L185B:					
Strout-Arkton complex, 2 to 6 percent slopes	Strout	70	Hills, Moraines	No	---
	Arkton	20	Hills, Moraines	No	---
	Cosmos	5	Flats, Moraines, Swales	Yes	2B3
	Kandiyohi	5	Hills, Moraines	No	---

Hydric Soils

Renville County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L187A:					
Klossner and Lura soils, ponded, firm substratum, 0 to 1 percent slopes	Klossner, firm substratum, ponded	45	Depressions, Moraines	Yes	1, 3
	Lura, firm substratum, ponded	45	Depressions, Moraines	Yes	2B3
	Corvuso	5	Depressions, Flats, Moraines, Rims	Yes	2B3
	Houghton, firm substratum, ponded	5	Depressions, Moraines	Yes	1, 3
L192A:					
Okoboji mucky silty clay loam, depressional, firm substratum, 0 to 1 percent slopes	Okoboji, depressional, firm substratum	80	Depressions, Moraines	Yes	2B3, 3
	Canisteo, depressional, firm substratum	15	Depressions, Moraines	Yes	2B3, 3
	Corvuso	5	Depressions, Flats, Moraines, Rims	Yes	2B3
L200A:					
Klossner muck, depressional, firm substratum, 0 to 1 percent slopes	Klossner, drained, firm substratum	80	Depressions, Moraines	Yes	1, 3
	Lura, drained, firm substratum	15	Depressions, Moraines	Yes	2B3, 3
	Corvuso	5	Depressions, Flats, Moraines, Rims	Yes	2B3
L201A:					
Normania loam, 0 to 3 percent slopes	Normania	85	Flats, Moraines, Rises	No	---
	Amiret	7	Hills, Moraines	No	---
	Seaforth	3	Flats, Moraines, Rises	No	---
	Webster	3	Flats, Moraines, Swales	Yes	2B3
	Canisteo	2	Depressions, Flats, Moraines, Rims	Yes	2B3

Hydric Soils

Renville County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L204C2:					
Newlondon-Strout-Hawick complex, 6 to 12 percent slopes, moderately eroded	Newlondon	55	Hills, Moraines	No	---
	Strout	20	Hills, Moraines	No	---
	Hawick	18	Hills, Moraines	No	---
	Danielson, overwash	7	Drainageways, Moraines, Swales	No	---
L206B:					
Strout-Arkton-Estherville complex, 2 to 6 percent slopes	Strout	60	Hills, Moraines	No	---
	Arkton	20	Hills, Moraines	No	---
	Estherville	15	Hills, Moraines	No	---
	Cosmos	5	Flats, Moraines, Swales	Yes	2B3
M-W:					
Water, miscellaneous	Water, miscellaneous	100	---		---
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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