

Hydric Soils

Lyon 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
51:					
La Prairie loam	La Prairie, occasionally flooded	95	Flood plains	No	---
	Sverdrup	3	Outwash plains	No	---
	Arvilla	1	Outwash plains	No	---
	Sioux	1	Outwash plains	No	---
86:					
Canisteo clay loam	Canisteo	95	Flats	Yes	2B3
	Glencoe	3	Depressions	Yes	2B3, 3
	Seaforth	2	Flats	No	---
114:					
Glencoe silty clay loam	Glencoe	95	Depressions	Yes	2B3, 3
	Canisteo	3	Flats	Yes	2B3
	Oldham	2	Depressions	Yes	2B3, 3
127:					
Sverdrup sandy loam, 0 to 2 percent slopes	Sverdrup	90	Moraines	No	---
127B:					
Sverdrup sandy loam, 2 to 6 percent slopes	Sverdrup	90	Moraines	No	---
149B:					
Everly clay loam, 2 to 4 percent slopes	Everly	90	Moraines	No	---
	Letri	3	Swales	Yes	2B3
	Sverdrup	2	Outwash plains	No	---
	Wilmonton	2	Flats	No	---
	Arvilla	1	Outwash plains	No	---
	Fordville	1	Outwash plains	No	---
	Sioux	1	Outwash plains	No	---

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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
149B2:					
Everyly clay loam, 3 to 6 percent slopes, eroded	Everly, eroded	90	Moraines	No	---
	Storden	3	Moraines	No	---
	Sverdrup	2	Outwash plains	No	---
	Wilmonton	2	Flats	No	---
	Arvilla	1	Outwash plains	No	---
	Fordville	1	Outwash plains	No	---
	Sioux	1	Outwash plains	No	---
149C2:					
Everyly clay loam, 6 to 12 percent slopes, eroded	Everly, eroded	90	Moraines	No	---
	Darnen	6	Moraines	No	---
	Storden	4	Moraines	No	---
184:					
Hamerly loam, 1 to 3 percent slopes	Hamerly	90	Moraines	No	---
	Vallers	6	Flats	Yes	2B3
	Quam	4	Depressions	Yes	2B3, 3
210:					
Fulda silty clay	Fulda	90	Flats	Yes	2B3
	Sinai	10	Moraines	No	---
212:					
Sinai silty clay, 1 to 3 percent slopes	Sinai	90	Moraines	No	---
	Fulda	6	Flats	Yes	2B3
	Poinsett	4	Lake plains	No	---
219:					
Rolfe loam	Rolfe	90	Depressions	Yes	2B3, 3
	Glencoe	10	Depressions	Yes	2B3, 3

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241: Letri clay loam	Letri	90	Swales	Yes	2B3
	Glencoe	5	Depressions	Yes	2B3, 3
	Canisteo	3	Flats	Yes	2B3
	Wilmonton	2	Flats	No	---
246: Marysland loam	Marysland	90	Flats	Yes	2B3
	Colvin	6	Flats	Yes	2B3
	Malachy	4	Outwash plains	No	---
276: Oldham silty clay loam	Oldham	90	Depressions	Yes	2B3, 3
	Quam	4	Depressions	Yes	2B3, 3
	Glencoe	3	Depressions	Yes	2B3, 3
	Vallers	2	Flats	Yes	2B3
	Canisteo	1	Flats	Yes	2B3
335: Urness silt loam	Urness	90	Depressions	Yes	2B3, 3
	Vallers	5	Flats	Yes	2B3
	Canisteo	3	Flats	Yes	2B3
	Oldham	2	Depressions	Yes	2B3, 3
339: Fordville loam, 0 to 2 percent slopes	Fordville	90	Moraines	No	---
	Arvilla	10	Outwash plains	No	---
339B: Fordville loam, 2 to 6 percent slopes	Fordville	90	Moraines	No	---
	Arvilla	10	Outwash plains	No	---

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341:					
Arvilla sandy loam, 0 to 2 percent slopes	Arvilla	90	Outwash plains, Stream terraces	No	---
	Sioux	6	Outwash plains	No	---
	Fordville	4	Outwash plains	No	---
341B:					
Arvilla sandy loam, 2 to 6 percent slopes	Arvilla	90	Outwash plains, Stream terraces	No	---
	Sioux	6	Outwash plains	No	---
	Fordville	4	Outwash plains	No	---
341C:					
Arvilla sandy loam, 6 to 12 percent slopes	Arvilla	90	Outwash plains, Stream terraces	No	---
	Sioux	10	Outwash plains	No	---
347:					
Malachy loam	Malachy	90	Moraines	No	---
	Sverdrup	5	Outwash plains	No	---
	Arvilla	3	Outwash plains	No	---
	Sioux	2	Outwash plains	No	---
402E:					
Sioux soils, 2 to 40 percent slopes	Sioux	90	Moraines	No	---
	Arvilla	6	Outwash plains	No	---
	Fordville	4	Outwash plains	No	---

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421B:					
Ves loam, 1 to 4 percent slopes	Ves	90	Moraines	No	---
	Seaforth	4	Flats	No	---
	Storden	3	Moraines	No	---
	Normania	2	Flats	No	---
	Glencoe	1	Depressions	Yes	2B3, 3
421B2:					
Ves loam, 3 to 6 percent slopes, eroded	Ves, eroded	90	Moraines	No	---
	Storden	6	Moraines	No	---
	Normania	4	Flats	No	---
423:					
Seaforth loam, 1 to 3 percent slopes	Seaforth	90	Moraines	No	---
	Canisteo	10	Flats	Yes	2B3
437E:					
Buse loam, 18 to 25 percent slopes	Buse	90	Moraines	No	---
	Lamoure	4	Flood plains	Yes	2B3
	La Prairie	3	Flood plains	No	---
	Rauville	2	Flood plains	Yes	2B3
	Darnen	1	Moraines	No	---
437F:					
Buse loam, 25 to 40 percent slopes	Buse	90	Moraines	No	---
	Lamoure	4	Flood plains	Yes	2B3
	La Prairie	3	Flood plains	No	---
	Rauville	2	Flood plains	Yes	2B3
	Darnen	1	Moraines	No	---

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446:					
Normania loam, 1 to 3 percent slopes	Normania	90	Moraines	No	---
	Ves	4	Moraines	No	---
	Darnen	2	Moraines	No	---
	Seaforth	2	Flats	No	---
	Canisteo	1	Flats	Yes	2B3
	Glencoe	1	Depressions	Yes	2B3, 3
450:					
Rauville silty clay loam	Rauville, frequently flooded	90	Flood plains	Yes	2B3, 4
	Lamoure	6	Flood plains	Yes	2B3
	La Prairie	4	Flood plains	No	---
894D2:					
Storden-Everly complex, 12 to 18 percent slopes, eroded	Storden, eroded	60	Moraines	No	---
	Everly, eroded	35	Moraines	No	---
	Letri	3	Swales	Yes	2B3
	Darnen	2	Moraines	No	---
904B2:					
Arvilla-Barnes-Buse complex, 2 to 6 percent slopes, eroded	Arvilla	40	Moraines	No	---
	Barnes, eroded	30	Moraines	No	---
	Buse, eroded	20	Moraines	No	---
	Sioux	6	Outwash plains	No	---
	Fordville	4	Outwash plains	No	---

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953C:					
Arvilla-Storden-Ves complex, 6 to 15 percent slopes	Arvilla	40	Moraines	No	---
	Storden	30	Moraines	No	---
	Ves	25	Moraines	No	---
	Fordville	2	Outwash plains	No	---
	Sioux	2	Outwash plains	No	---
	Sverdrup	1	---	No	---
954C2:					
Storden-Ves loams, 5 to 12 percent slopes, eroded	Storden, eroded	55	Moraines	No	---
	Ves, eroded	35	Moraines	No	---
	Normania	6	Flats	No	---
	Canisteo	4	Flats	Yes	2B3
954D2:					
Storden-Ves loams, 12 to 18 percent slopes, eroded	Storden, eroded	60	Moraines	No	---
	Ves, eroded	30	Moraines	No	---
	Canisteo	6	Flats	Yes	2B3
	Darnen	4	Moraines	No	---
986:					
Lamoure and La Prairie soils, frequently flooded	La Prairie, frequently flooded	45	Flood plains	Yes	4
	Lamoure, frequently flooded	45	Flood plains	Yes	2B3, 4
	Rauville	10	Flood plains	Yes	2B3, 4
1003B:					
Udorthents (cut and fill land), 0 to 6 percent slopes	Udorthents, (cut and fill land)	100	Moraines	---	---
1007:					
Udorthents, shallow (sanitary landfill)	Udorthents, shallow, sanitary landfill	100	Moraines	No	---

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1016: Udorthents	Udorthents	100	Moraines		---
1024A: Havelock clay loam, 0 to 2 percent slopes. occasionally flooded	Havelock, occasionally flooded	80	Flood plains	Yes	2B3
	Havelock, frequently flooded	10	Flood plains	Yes	2B3, 4
	Spillco, occasionally flooded	5	Flood plains	No	---
	Comfrey, occasionally flooded	3	Flood plains	Yes	2B3
	Calco, occasionally flooded	2	Flood plains	Yes	2B3
1029: Pits, gravel	Pits, gravel	100	Outwash plains, Stream terraces		---
1032: Aquents and Udorthents	Aquents	65	Moraines		---
	Udorthents	30	Moraines		---
1053: Aquolls and Aquents, ponded	Aquolls, ponded	55	Depressions	Yes	2B3, 3
	Aquents, ponded	35	Depressions	Yes	2B3, 3
1356: Water, miscellaneous	Water, miscellaneous	100	---		---
1809: Bearden complex	Bearden, occasionally flooded	50	Flats	No	---
	Du Page, occasionally flooded	40	Flats	No	---
	Colvin	6	Flats	Yes	2B3
	Malachy	4	Outwash plains	No	---

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1810: Colvin complex	Colvin, occasionally flooded	55	Flats	Yes	2B3
	Calco, occasionally flooded	35	Flood plains	Yes	2B3
	Oldham	5	Depressions	Yes	2B3, 3
	Bearden	3	Flats	No	---
	Marysland	2	Flats	Yes	2B3
1814: Oldham silty clay	Oldham	90	Depressions	Yes	2B3
	Colvin	10	Flats	Yes	2B3
GP: Pits, gravel-Udipsamments complex	Pits, gravel	80	Moraines, Outwash plains, Stream terraces		---
	Udipsamments	20	Moraines, Outwash plains, Stream terraces		---
J1A: Parnell silty clay loam, depressional, 0 to 1 percent slopes	Parnell, depressional	90	Till plains	Yes	2B3, 3
	Vallers	5	Till plains	Yes	2B3
	Winger	5	Till plains	Yes	2B3
J2A: La Prairie loam, 0 to 2 percent slopes, occasionally flooded	La Prairie, occasionally flooded	90	Flood plains	No	---
	Lamoure, occasionally flooded	10	Flood plains	Yes	2B3
J7A: Sverdrup sandy loam, 0 to 2 percent slopes	Sverdrup	80	Outwash plains	No	---
	Arveson	5	Outwash plains	Yes	2B3
	Clontarf	5	Outwash plains	No	---
	Egeland	5	Outwash plains	No	---
	Estelline	5	Outwash plains	No	---

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J7B:					
Sverdrup sandy loam, 2 to 6 percent slopes	Sverdrup	85	Outwash plains	No	---
	Clontarf	5	Outwash plains	No	---
	Egeland	5	Outwash plains	No	---
	Estelline	5	Outwash plains	No	---
J11A:					
Vallers clay loam, 0 to 2 percent slopes	Vallers	85	Till plains	Yes	2B3
	Parnell, depressional	10	Till plains	Yes	2B3, 3
	Balaton	5	Till plains	No	---
J12A:					
Marysland loam, 0 to 2 percent slopes	Marysland	85	Outwash plains	Yes	2B3
	Arveson	10	Outwash plains	Yes	2B3
	Marysland, depressional	3	Outwash plains	Yes	2B3, 3
	Malachy	2	Outwash plains	No	---
J17A:					
Quam silty clay loam, depressional, 0 to 1 percent slopes	Quam, depressional	90	Lake plains	Yes	2B3, 3
	Vallers	5	Till plains	Yes	2B3
	Winger	5	Lake plains	Yes	2B3
J18A:					
Malachy sandy loam, 1 to 3 percent slopes	Malachy	85	Outwash plains	No	---
	Arveson	5	Outwash plains	Yes	2B3
	Clontarf	5	Outwash plains	No	---
	Well drained soils	5	Outwash plains	No	---

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J23A:					
Lamoure silty clay loam, 0 to 2 percent slopes, occasionally flooded	Lamoure, occasionally flooded	85	Flood plains	Yes	2B3
	Rauville, frequently flooded	10	Flood plains	Yes	2B3, 4
	La Prairie, occasionally flooded	5	Flood plains	No	---
J25A:					
Rauville silty clay loam, 0 to 1 percent slopes, frequently flooded	Rauville, frequently flooded	90	Flood plains	Yes	2B3, 4
	Lamoure, occasionally flooded	10	Flood plains	Yes	2B3
J26B:					
Darnen loam, 2 to 6 percent slopes	Darnen	90	Moraines	No	---
	Hokans	5	Moraines	No	---
	Lakepark	5	Moraines	Yes	2B3
J31B:					
Arvilla-Sandberg complex, 2 to 6 percent slopes	Arvilla	45	Outwash plains	No	---
	Sandberg	40	Outwash plains	No	---
	Renshaw	10	Outwash plains	No	---
	Fordtown	5	Outwash plains	No	---
J32A:					
Bigstone silty clay loam, depressionnal, 0 to 1 percent slopes	Bigstone, depressionnal	80	Lake plains	Yes	2B3, 3
	Urness, depressionnal	10	Moraines	Yes	2B3, 3
	Colvin	5	Lake plains	Yes	2B3
	Vallers	5	Till plains	Yes	2B3
J42C:					
Sandberg-Arvilla complex, 6 to 12 percent slopes	Sandberg	60	Outwash plains	No	---
	Arvilla	30	Outwash plains	No	---
	Everts	10	Outwash plains	No	---

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J45F:					
Sandberg sandy loam, 12 to 40 percent slopes	Sandberg	80	Outwash plains	No	---
	Everts	10	Outwash plains	No	---
	Arvilla	5	Outwash plains	No	---
	Sioux	5	Outwash plains	No	---
J48A:					
Bigstone and Parnell soils, ponded, 0 to 1 percent slopes	Bigstone, ponded	40	Moraines	Yes	2B3, 3
	Parnell, ponded	40	Moraines	Yes	2B3, 3
	Colvin	10	Moraines	Yes	2B3
	Vallers	10	Moraines	Yes	2B3
J57A:					
Balaton loam, 1 to 3 percent slopes	Balaton	85	Till plains	No	---
	Tara	5	Till plains	No	---
	Well drained soils	5	Till plains	No	---
	Vallers	3	Till plains	Yes	2B3
	Hamerly	2	Till plains	No	---
J75A:					
Fordville loam, 0 to 2 percent slopes	Fordville	85	Outwash plains	No	---
	Renshaw	10	Outwash plains	No	---
	Spottswood	5	Outwash plains	No	---
J75B:					
Fordville loam, 2 to 6 percent slopes	Fordville	85	Outwash plains	No	---
	Renshaw	10	Outwash plains	No	---
	Spottswood	5	Outwash plains	No	---

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J77A:					
Lamoure silty clay loam, 0 to 2 percent slopes, frequently flooded	Lamoure, frequently flooded	85	Flood plains	Yes	2B3, 4
	Rauville, frequently flooded	10	Flood plains	Yes	2B3, 4
	La Prairie, occasionally flooded	5	Flood plains	No	---
J80A:					
Lamoure-La Prairie complex, channeled, 0 to 2 percent slopes, frequently flooded	Lamoure, channeled, frequently flooded	50	Flood plains	Yes	2B3, 4
	La Prairie, channeled, frequently flooded	40	Flood plains	Yes	4
	Rauville, frequently flooded	10	Flood plains	Yes	2B3, 4
J95E:					
Buse, stony-Wilno complex, 18 to 25 percent slopes	Buse, stony	75	Moraines	No	---
	Wilno	15	Moraines	No	---
	Barnes	5	Moraines	No	---
	Darnen	5	Moraines	No	---
J95F:					
Buse, stony-Wilno complex, 25 to 40 percent slopes	Buse, stony	75	Moraines	No	---
	Wilno	15	Moraines	No	---
	Barnes	5	Moraines	No	---
	Darnen	5	Moraines	No	---
J96C2:					
Barnes-Buse complex, 6 to 12 percent slopes, moderately eroded	Barnes, moderately eroded	50	Moraines	No	---
	Buse, moderately eroded	30	Moraines	No	---
	Barnes	10	Moraines	No	---
	Darnen	5	Moraines	No	---
	Svea	5	Moraines	No	---

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J100D2:					
Buse, eroded-Wilno complex, 12 to 18 percent slopes	Buse, moderately eroded	70	Moraines	No	---
	Wilno	15	Moraines	No	---
	Barnes, moderately eroded	5	Moraines	No	---
	Buse	5	Moraines	No	---
	Darnen	5	Moraines	No	---
J101B:					
Hokans-Svea complex, 1 to 4 percent slopes	Hokans	70	Moraines	No	---
	Svea	20	Moraines	No	---
	Buse	5	Moraines	No	---
	Lakepark	5	Moraines	Yes	2B3
J104A:					
Svea loam, 1 to 3 percent slopes	Svea	75	Moraines	No	---
	Hokans	10	Moraines	No	---
	Lakepark	10	Moraines	Yes	2B3
	Balaton	5	Moraines	No	---
J105A:					
Arvilla sandy loam, 0 to 2 percent slopes	Arvilla	85	Outwash plains	No	---
	Fordtown	5	Outwash plains	No	---
	Fordville	5	Outwash plains	No	---
	Renshaw	5	Outwash plains	No	---

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J106B:					
Barnes-Buse-Svea complex, 1 to 6 percent slopes	Barnes, occasional saturation	60	Till plains	No	---
	Buse	15	Till plains	No	---
	Svea	15	Till plains	No	---
	Barnes, moderately eroded, occasional saturation	9	Till plains	No	---
	Flom	1	Swales	Yes	2B3
J107A:					
Lakepark-Roliss-Parnell, depressional, complex, 0 to 3 percent slopes	Lakepark	35	Moraines	Yes	2B3
	Roliss	25	Moraines	Yes	2B3
	Parnell, depressional	15	Moraines	Yes	2B3, 3
	Svea	10	Moraines	No	---
	Vallers	10	Moraines	Yes	2B3
	Balaton	5	Moraines	No	---
J195B:					
Poinsett silty clay loam, 2 to 6 percent slopes	Poinsett, occasional saturation	80	Lake plains	No	---
	Highpoint Lake	5	Moraines	No	---
	Lake Benton, occasional saturation	5	Moraines	No	---
	Rusklyn	5	Lake plains	No	---
	Waubay	5	Lake plains	No	---

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J198C2:					
Rusklyn-Poinsett complex, 6 to 12 percent slopes, moderately eroded	Rusklyn, moderately eroded	45	Lake plains	No	---
	Poinsett, moderately eroded	40	Lake plains	No	---
	Waubay	10	Lake plains	No	---
	Lake Benton	5	Moraines	No	---
J199A:					
Fulda silty clay, 0 to 2 percent slopes	Fulda	85	Moraines	Yes	2B3
	Highpoint Lake	10	Moraines	No	---
	Somewhat poorly drained soil	5	Moraines	No	---
J227D2:					
Buse, moderately eroded-Sandberg complex, 12 to 18 percent slopes	Buse, moderately eroded	50	Moraines	No	---
	Sandberg	30	Moraines	No	---
	Wilno	10	Moraines	No	---
	Arvilla	5	Moraines	No	---
	Everts	5	Moraines	No	---
J227F:					
Buse-Sandberg complex, 18 to 40 percent slopes	Buse	50	Moraines	No	---
	Sandberg	30	Moraines	No	---
	Wilno	10	Moraines	No	---
	Arvilla	5	Moraines	No	---
	Everts	5	Moraines	No	---

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J232B:					
Barnes-Buse-Arvilla complex, 2 to 6 percent slopes	Barnes, occasional saturation	35	Till plains	No	---
	Buse	30	Till plains	No	---
	Arvilla	25	Moraines	No	---
	Svea	10	Till plains	No	---
J235C2:					
Buse-Barnes-Arvilla complex, 6 to 12 percent slopes, moderately eroded	Buse, moderately eroded	35	Moraines	No	---
	Barnes, moderately eroded	30	Moraines	No	---
	Arvilla	25	Moraines	No	---
	Sandberg	5	Moraines	No	---
	Svea	5	Till plains	No	---
J236A:					
Highpoint Lake silty clay, 0 to 2 percent slopes	Highpoint Lake	90	Moraines	No	---
	Fulda	10	Moraines	Yes	2B3
J237A:					
Brensall-Tress complex, 0 to 2 percent slopes	Brensall	70	Till plains	No	---
	Tress	20	Till plains	No	---
	Parnell	9	Till plains	Yes	2B3
	Parnell, depressional	1	Till plains	Yes	2B3, 3
J237B:					
Brensall-Tress complex 1 to 4 percent slopes	Brensall	60	Till plains	No	---
	Tress	25	Till plains	No	---
	Parnell	10	Till plains	Yes	2B3
	Forman, occasional saturation	5	Till plains	No	---

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J238D2:					
Buse, firm till-Wilno complex, 12 to 18 percent slopes	Buse, firm till, moderately eroded	60	Till plains	No	---
	Wilno	20	Till plains	No	---
	Forman	10	Till plains	No	---
	Darnen	5	Till plains	No	---
	Lamoure, frequently flooded	5	Flood plains	Yes	2B3, 4
J238E:					
Buse, firm till-Wilno complex, 18 to 25 percent slopes	Buse, firm till	75	Till plains	No	---
	Wilno	15	Till plains	No	---
	Darnen	5	Till plains	No	---
	Lamoure, frequently flooded	5	Flood plains	Yes	2B3, 4
J238F:					
Buse, firm till-Wilno complex, 25 to 40 percent slopes	Buse, firm till	75	Till plains	No	---
	Wilno	15	Moraines	No	---
	Darnen	5	Till plains	No	---
	Lamoure, frequently flooded	5	Flood plains	Yes	2B3, 4
J240B:					
Forman-Aastad complex, 3 to 6 percent slopes	Forman, occasional saturation	50	Till plains	No	---
	Aastad	20	Till plains	No	---
	Buse, firm till	10	Till plains	No	---
	Tress	10	Till plains	No	---
	Brensall	5	Till plains	No	---
	Parnell	5	Till plains	Yes	2B3

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J243A:					
Balaton clay loam, 1 to 3 percent slopes	Balaton	90	Till plains	No	---
	Brensall	5	Till plains	No	---
	Vallers	5	Till plains	Yes	2B3
J250C2:					
Forman-Buse complex, 6 to 12 percent slopes, moderately eroded	Forman, moderately eroded	45	Till plains	No	---
	Buse, moderately eroded, firm till	40	Till plains	No	---
	Aastad	10	Till plains	No	---
	Darnen	5	Till plains	No	---
J251A:					
Parnell silty clay loam, firm till, 0 to 2 percent slopes	Parnell, firm till	75	Till plains	Yes	2B3
	Tress	10	Till plains	No	---
	Badger	5	Till plains	No	---
	Lakepark, overwash	5	Till plains	No	---
	Lakepark, frequently flooded	4	Moraines	Yes	2B3
	Parnell, depressional	1	Till plains	Yes	2B3, 3
L84A:					
Glencoe clay loam, depressional, 0 to 1 percent slopes	Glencoe, depressional	80	Depressions, Moraines	Yes	2B3, 3
	Very poorly drained muck	10	Depressions, Moraines	Yes	2B3
	Canisteo	5	Depressions, Flats, Moraines, Rims	Yes	2B3
	Harps	5	Depressions, Rims	Yes	2B3

Hydric Soils

Lyon County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L96B:					
Estherville-Hawick complex, 2 to 6 percent slopes	Estherville	55	Hills, Hills, Outwash plains, Stream terraces	No	---
	Hawick	35	Hills, Hills, Outwash plains, Stream terraces	No	---
	Tomall	8	Outwash plains, Stream terraces, Swales	No	---
	Biscay	2	Flats, Outwash plains, Swales	Yes	2B3
L139A:					
Wadena loam, 0 to 2 percent slopes	Wadena	85	Outwash plains, Stream terraces	No	---
	Estherville	5	Outwash plains, Stream terraces	No	---
	Kanaranzi	5	Outwash plains, Stream terraces	No	---
	Cylinder	3	Outwash plains, Stream terraces	No	---
	Dickinson	2	Outwash plains, Stream terraces	No	---
L142A:					
Jeffers clay loam, 0 to 2 percent slopes	Jeffers	85	Moraines	Yes	2B3
	Romnell, depressional	10	Moraines	Yes	2B3, 3
	Moines	2	Moraines	No	---
	Pell Creek	2	Moraines	Yes	2B3
	Revere, firm till substratum	1	Moraines	Yes	2B3

Hydric Soils

Lyon County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L172D2:					
Storden, firm till-Annton complex, 12 to 18 percent slopes, moderately eroded	Storden, moderately eroded, firm till	45	Moraines	No	---
	Annton, moderately, eroded	40	Moraines	No	---
	Ridgeton	6	Moraines	No	---
	Coland, frequently flooded	5	Flood plains	Yes	2B3, 4
	Romnell	2	Moraines	Yes	2B3
	Terril, firm till substratum	2	Moraines	No	---
L173A:					
Moines clay loam, 1 to 3 percent slopes	Moines	85	Moraines	No	---
	Jeffers	8	Moraines	Yes	2B3
	Walnut Grove	5	Moraines	No	---
	Romnell, depressional	2	Moraines	Yes	2B3, 3
L198A:					
North Twin-Walnut Grove complex, 0 to 2 percent slopes	North Twin	70	Moraines	No	---
	Walnut Grove	20	Moraines	No	---
	Pell Creek	9	Moraines	Yes	2B3
	Romnell, depressional	1	Moraines	Yes	2B3, 3
L198B:					
North Twin-Walnut Grove complex, 1 to 4 percent slopes	North Twin	60	Moraines	No	---
	Walnut Grove	25	Moraines	No	---
	Pell Creek	10	Moraines	Yes	2B3
	Annton	5	Moraines	No	---

Hydric Soils

Lyon County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
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
L202A:					
Pell Creek-Romnell complex, 0 to 2 percent slopes	Pell Creek	55	Moraines	Yes	2B3
	Romnell	35	Moraines	Yes	2B3
	Romnell, depressional	4	Moraines	Yes	2B3, 3
	Jeffers	3	Moraines	Yes	2B3
	Walnut Grove	3	Moraines	No	---
L207E:					
Belview-Ridgeton complex, 18 to 25 percent slopes, firm till substratum	Belview, firm till substratum	75	Escarpments, Moraines	No	---
	Ridgeton, firm till substratum	15	Escarpments, Moraines	No	---
	Coland, frequently flooded	5	Flats, Flood plains	Yes	2B3, 4
	Terril, firm till substratum	5	Escarpments, Moraines	No	---
L207F:					
Belview-Ridgeton complex, 18 to 40 percent slopes, firm till substratum	Belview, firm till substratum	75	Moraines	No	---
	Ridgeton, firm till substratum	15	Moraines	No	---
	Coland, frequently flooded	5	Flood plains	Yes	2B3, 4
	Terril, firm till substratum	5	Moraines	No	---

Hydric Soils

Lyon County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L214A:					
Calco-Du Page complex, 0 to 2 percent slopes, frequently flooded	Calco, frequently flooded	50	Flats, Flood plains	Yes	2B3, 4
	Du Page, frequently flooded	44	Flats, Flood plains, Rises	Yes	4
	Oshawa, frequently flooded	3	Flood plains, Oxbows	Yes	2B3, 3, 4
	Spillville, occasionally flooded	2	Flats, Flood plains, Rises	No	---
	Minneopa, occasionally flooded	1	Flats, Flood plains, Rises	No	---
L220A:					
Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded	Calco, occasionally flooded	85	Flats, Flood plains	Yes	2B3
	Du Page, occasionally flooded	5	Flats, Flood plains, Rises	No	---
	Burr, occasionally flooded	3	Flats, Lake plains	Yes	2B3
	Oshawa, frequently flooded	3	Flood plains, Oxbows	Yes	2B3, 3, 4
	Minneopa, occasionally flooded	2	Flats, Flood plains, Rises	No	---
	Spillville, occasionally flooded	2	Flats, Flood plains, Rises	No	---
L221A:					
Du Page loam, 0 to 2 percent slopes, occasionally flooded	Du Page, occasionally flooded	85	Flats, Flood plains, Rises	No	---
	Calco, occasionally flooded	5	Flats, Flood plains	Yes	2B3
	Havelock, occasionally flooded	3	Flood plains	Yes	2B3
	Nishna, occasionally flooded	3	Flats, Flood plains	Yes	2B3
	Minneopa, occasionally flooded	2	Flats, Flood plains, Rises	No	---
	Spillville, occasionally flooded	2	Flats, Flood plains, Rises	No	---

Hydric Soils

Lyon County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L222C2:					
Ves-Storden-Pilot Grove complex, 6 to 12 percent slopes, moderately eroded	Ves, moderately eroded	35	Hills, Moraines	No	---
	Storden, moderately eroded	30	Hills, Moraines	No	---
	Pilot Grove	25	Hills, Moraines	No	---
	Terril	6	Hills, Moraines	No	---
	Delft	2	Drainageways, Moraines, Swales	Yes	2B3
	Hawick	2	Hills, Moraines	No	---
L225B:					
Annton-North Twin complex, 3 to 6 percent slopes	Annton	50	Moraines	No	---
	North Twin	30	Moraines	No	---
	Swanlake, firm till	10	Moraines	No	---
	Walnut Grove	8	Moraines	No	---
	Pell Creek	2	Moraines	Yes	2B3
L226C2:					
Annton-Storden, firm till complex, 6 to 12 percent slopes, moderately eroded	Annton, moderately eroded	45	Moraines	No	---
	Storden, moderately eroded, firm till	35	Moraines	No	---
	Annton	10	Moraines	No	---
	Terril, firm till substratum	7	Moraines	No	---
	Romnell	3	Moraines	Yes	2B3

Hydric Soils

Lyon County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L229A:					
Romnell silty clay loam, depressional, 0 to 1 percent slopes	Romnell, depressional	80	Moraines	Yes	2B3, 3
	Soils that have more clay, depressional	15	Moraines	Yes	2B3, 3
	Jeffers	2	Moraines	Yes	2B3
	Romnell	2	Moraines	Yes	2B3
	Pell Creek	1	Moraines	Yes	2B3
L234A:					
Romnell silty clay loam, ponded, 0 to 1 percent slopes	Romnell, ponded	80	Moraines	Yes	2B3, 3
	Soils that have more clay, ponded	15	Moraines	Yes	2B3, 3
	Jeffers	4	Moraines	Yes	2B3
	Pell Creek	1	Moraines	Yes	2B3
L242B:					
Terril loam, firm till substratum, 2 to 6 percent slopes	Terril, firm till substratum	90	Moraines	No	---
	Annton	5	Moraines	No	---
	Romnell	5	Moraines	Yes	2B3
L243A:					
Havelock-Zumbro complex, 0 to 3 percent slopes, frequently flooded	Havelock, frequently flooded	75	Flood plains	Yes	2B3, 4
	Zumbro, frequently flooded	18	Flood plains	No	---
	Oshawa, frequently flooded	5	Flood plains, Oxbows	Yes	2B3, 3, 4
	Havelock, occasionally flooded	2	Flood plains	Yes	2B3

Hydric Soils

Lyon County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L246B:					
Dickman sandy loam, firm till substratum, 1 to 6 percent slopes	Dickman, firm till substratum	85	Hills, Outwash plains	No	---
	Dickman	8	Hills, Outwash plains	No	---
	Lowlein, firm till	5	Moraines, Stream terraces	No	---
	Dickinson, firm till substratum	2	Hills, Hills, Moraines, Outwash plains	No	---
L248B:					
Annton-Swanlake, firm till complex, 3 to 6 percent slopes	Annton	55	Moraines	No	---
	Swanlake, firm till	35	Moraines	No	---
	Walnut Grove	5	Moraines	No	---
	Moines	2	Moraines	No	---
	Storden, moderately eroded, firm till substratum	2	Moraines	No	---
	Pell Creek	1	Moraines	Yes	2B3
L249A:					
Knoke silty clay loam, firm till substratum, depressional, 0 to 1 percent slopes	Knoke, firm till substratum, depressional	85	Moraines	Yes	2B3, 3
	Romnell, depressional	10	Moraines	Yes	2B3, 3
	Jeffers	5	Moraines	Yes	2B3
L250A:					
Lowlein loam, firm till, 1 to 3 percent slopes	Lowlein, firm till	85	Moraines, Stream terraces	No	---
	Walnut grove	10	Flats, Moraines, Rises	No	---
	Pell creek	5	Drainageways, Flats, Swales	Yes	2B3

Hydric Soils

Lyon County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L251A:					
Blue Earth mucky silt loam, firm till substratum, depressional, 0 to 1 percent slopes	Blue Earth, depressional	90	Depressions, Lake plains, Moraines	Yes	2B3
	Jeffers	5	Depressions, Flats, Moraines, Rims	Yes	2B3
	Knoke, firm till substratum, depressional	3	Lake plains, Moraines	Yes	2B3, 3
	Romnell, depressional	2	Depressions, Moraines	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 Folist.
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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