

Highly Erodible Soil Map Unit List - Eastern Roseau County, MN

C = .20

R = 70

This data is only to be used for HEL determinations.

This is the "frozen data" based on 01/01/1990 information. Values other than "HEL" should only be used for PHEL.

Mapunit

Symbol	Mapunit Name	HEL	T	K	I	LS
767	Auganaush loam, 0 to 2 percent slopes	NHEL	3	0.3	48	0.15
1326	Augsburg and Wabanica soils, depressional, 0 to 1 percent slopes	NHEL	4	0.3	86	0.11
52	Augsburg loam, 0 to 2 percent slopes	NHEL	4	0.3	86	0.15
I110A	Augsburg, Borup, and Colvin soils, very poorly drained, 0 to 1 percent slopes	NHEL	4	0.3	86	0.15
167B	Baudette fine sandy loam, 1 to 6 percent slopes	NHEL	5	0.3	86	0.15
167B	Baudette fine sandy loam, 1 to 6 percent slopes	NHEL	5	0.3	86	0.15
67	Bearden silt loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
733	Berner muck, 0 to 1 percent slopes	HEL	2	0.0	134	0.15
I99A	Berner muck, dense till, 0 to 1 percent slopes	HEL	2	0.0	134	0.15
1404	Berner muck, wooded, 0 to 1 percent slopes	HEL	2	0.0	134	0.15
I79A	Berner, Cathro, and Haug soils, ponded, dense till, 0 to 1 percent slopes	NHEL	5	0.0	0	0.15
644	Boash clay loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
1298	Borup silt loam, 0 to 2 percent slopes	NHEL	4	0.3	86	0.15
1134	Borup-Glyndon complex, 0 to 2 percent slopes	NHEL	4	0.3	86	0.11
561	Bullwinkle muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.15
I82A	Cathro muck, dense till, 0 to 1 percent slopes	NHEL	5	0.0	134	0.15
544	Cathro muck, map 18-22, 0 to 1 percent slopes	NHEL	5	0.0	134	0.15
1807	Cathro muck, ponded, map 22-30, 0 to 1 percent slopes	NHEL	5	0.0	0	0.15
404	Chilgren fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
794	Clearriver loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
47	Colvin silty clay loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.11
721B	Corliss loamy sand, 1 to 6 percent slopes	NHEL	5	0.2	134	0.15
721B	Corliss loamy sand, 1 to 6 percent slopes	NHEL	5	0.2	134	0.15
117	Cormant loamy fine sand, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
I97A	Cormant loamy fine sand, dense till, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
1206	Cormant-Redby complex, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
1918	Croke very fine sandy loam, 0 to 2 percent slopes	NHEL	4	0.3	86	0.15
133	Dalbo loam, 0 to 3 percent slopes	NHEL	5	0.4	48	0.15
547	Deerwood muck, 0 to 1 percent slopes	HEL	3	0.0	134	0.15
I11A	Deerwood muck, 0 to 1 percent slopes	HEL	3	0.0	134	0.11
I77A	Deerwood muck, dense till, 0 to 1 percent slopes	HEL	3	0.0	134	0.11
550	Dora muck, 0 to 1 percent slopes	NHEL	4	0.0	134	0.11
1187	Dora muck, ponded, 0 to 1 percent slopes	NHEL	5	0.0	0	0.11
1333	Dora muck, wooded, 0 to 1 percent slopes	NHEL	4	0.0	134	0.11
565	Eckvoll loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.11

145	Enstrom loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.11
I106A	Enstrom loamy fine sand, dense till, 0 to 3 percent slopes	NHEL	5	0.2	134	0.11
191	Epoufette loamy fine sand, map 22-30, 0 to 2 percent slopes	NHEL	4	0.2	86	0.11
645	Espelie fine sandy loam, 0 to 2 percent slopes	NHEL	4	0.2	86	0.11
570	Faunce loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.11
I109A	Fluvaquents, 0 to 2 percent slopes, flooded	NHEL	5	0.2	56	0.15
1002	Fluvaquents, 0 to 2 percent slopes, frequently flooded	NHEL	5	0.2	56	0.15
I16F	Fluvaquents, flooded-Hapludolls complex, 0 to 30 percent slopes	PHEL	5	0.2	86	0.15
1067	Fluvaquents, frequently flooded-Hapludalfs complex, 0 to 60 percent slopes	PHEL	5	0.2	86	0.15
1302	Foldahl fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
I114A	Foldahl fine sandy loam, dense till, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
65	Foxhome sandy loam, 0 to 3 percent slopes	NHEL	3	0.2	86	0.15
I101A	Foxhome sandy loam, dense till, 0 to 3 percent slopes	NHEL	3	0.2	86	0.11
77	Garnes fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.3	86	0.11
I115A	Garnes fine sandy loam, dense till, 0 to 3 percent slopes, very stony	NHEL	5	0.3	86	0.15
1923B	Garnes loam, 1 to 4 percent slopes, very stony	NHEL	5	0.3	0	0.15
1923B	Garnes loam, 1 to 4 percent slopes, very stony	NHEL	5	0.3	86	0.15
1304	Glyndon very fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
I92A	Grano clay, dense till, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
1448	Grano clay, map 18-22, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
1449	Grano loam, map 18-22, 0 to 2 percent slopes	NHEL	5	0.2	56	0.11
59	Grimstad fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
I113A	Grimstad fine sandy loam, dense till, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15
482	Grygla loamy fine sand, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
I116A	Grygla loamy fine sand, dense till, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
1401	Grygla mucky loamy fine sand, depressional, 0 to 1 percent slopes	NHEL	5	0.2	134	0.15
111	Hangaard sandy loam, 0 to 2 percent slopes	HEL	2	0.2	86	0.15
I28A	Hangaard sandy loam, 0 to 2 percent slopes	HEL	2	0.2	86	0.11
I105A	Hangaard sandy loam, dense till, 0 to 2 percent slopes	HEL	2	0.2	86	0.15
187	Haug muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.15
I88A	Haug muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
1305	Hilaire fine sandy loam, 0 to 3 percent slopes	NHEL	4	0.2	86	0.11
48B	Hiwood fine sand, 1 to 6 percent slopes	HEL	5	0.2	250	0.15
48B	Hiwood fine sand, 1 to 6 percent slopes	HEL	5	0.2	250	0.15
643	Huot fine sandy loam, 0 to 3 percent slopes	NHEL	4	0.2	86	0.15
I35A	Karlsruhe sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
1428	Karlsruhe sandy loam, map 18-22, 0 to 3 percent slopes	NHEL	5	0.2	86	0.11
205	Karlstad loamy sand, 0 to 3 percent slopes	NHEL	3	0.2	86	0.15
I76A	Karlstad loamy sand, 0 to 3 percent slopes	NHEL	3	0.2	86	0.15
1327B	Karlstad-Marquette complex, 0 to 8 percent slopes	HEL	2	0.2	134	0.11
I80B	Karlstad-Marquette complex, 0 to 8 percent slopes	HEL	2	0.2	134	0.15
1327B	Karlstad-Marquette complex, 0 to 8 percent slopes	HEL	2	0.2	134	0.15
I95A	Kratka and Strathcona soils, depressional, dense till, 0 to 1 percent slopes	NHEL	5	0.2	86	0.15

481	Kratka fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15
I103A	Kratka fine sandy loam, dense till, 0 to 2 percent slopes	NHEL	5	0.2	86	0.11
1405	Lallie mucky silt loam, map 18-22, 0 to 1 percent slopes	NHEL	5	0.4	0	0.15
1984	Leafriver muck, 0 to 1 percent slopes	HEL	2	0.0	134	0.11
1402	Leafriver muck, wooded, 0 to 1 percent slopes	HEL	2	0.0	134	0.11
546	Lupton muck, map 22-30, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
737	Mahkonce fine sandy loam, 0 to 3 percent slopes	NHEL	3	0.3	86	0.15
I41A	Markey muck, 0 to 1 percent slopes	NHEL	4	0.0	134	0.11
543	Markey muck, map 18-22, 0 to 1 percent slopes	NHEL	4	0.0	134	0.11
I42A	Markey muck, ponded, 0 to 1 percent slopes	NHEL	4	0.0	0	0.11
1808	Markey muck, ponded, map 22-30, 0 to 1 percent slopes	NHEL	4	0.0	0	0.11
242B	Marquette loamy sand, 1 to 8 percent slopes	HEL	2	0.2	134	0.15
I78B	Marquette loamy sand, 1 to 8 percent slopes	HEL	2	0.2	134	0.15
242B	Marquette loamy sand, 1 to 8 percent slopes	HEL	2	0.2	134	0.15
412	Mavie fine sandy loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
I102A	Mavie fine sandy loam, dense till, 0 to 2 percent slopes	NHEL	3	0.2	86	0.11
202	Meehan loamy sand, map 22-30, 0 to 2 percent slopes	NHEL	5	0.2	134	0.11
534	Mooselake mucky peat, 0 to 1 percent slopes	NHEL	5	0.0	56	0.15
I179B	Moranville loamy fine sand, 0 to 4 percent slopes	NHEL	5	0.2	134	0.11
I179B	Moranville loamy fine sand, 0 to 4 percent slopes	NHEL	5	0.2	134	0.23
1214	Mustinka clay loam, 0 to 1 percent slopes	NHEL	5	0.3	38	0.23
583	Nereson fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.11
I126A	Nereson fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.32
I89A	Nereson fine sandy loam, 0 to 3 percent slopes, very cobbly	NHEL	5	0.2	86	0.23
563	Northwood muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.15
I81A	Northwood muck, dense till, 0 to 1 percent slopes	NHEL	5	0.0	134	0.15
1328	Northwood muck, wooded, 0 to 1 percent slopes	NHEL	5	0.0	134	0.23
280	Pelan sandy loam, 0 to 3 percent slopes	NHEL	3	0.2	86	0.17
I87A	Pelan sandy loam, dense till, 0 to 3 percent slopes	NHEL	3	0.2	86	0.15
581	Percy fine sandy loam, 0 to 1 percent slopes	NHEL	5	0.3	86	0.15
383	Percy loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
I127A	Percy loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
I85A	Percy loam, 0 to 2 percent slopes, bouldery	NHEL	5	0.3	0	0.15
379	Percy loam, 0 to 2 percent slopes, very cobbly	NHEL	5	0.3	0	0.15
I84A	Percy loam, 0 to 2 percent slopes, very cobbly	NHEL	5	0.3	0	0.15
384	Percy mucky loam, depressional, 0 to 1 percent slopes	NHEL	5	0.2	48	0.15
I86A	Percy mucky loam, depressional, 0 to 1 percent slopes	NHEL	5	0.2	48	0.15
1030	Pits, gravel-Udipsamments complex, 1 to 50 percent slopes	PHEL	5	0.2	134	0.15
I47A	Poppleton fine sand, 0 to 3 percent slopes	HEL	5	0.2	250	0.15
I118A	Poppleton fine sand, dense till, 0 to 2 percent slopes	HEL	5	0.2	250	0.15
I75A	Radium-Sandberg-Garborg complex, 0 to 3 percent slopes	PHEL	5	0.2	86	0.15
116	Redby loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
I90A	Redby loamy fine sand, dense till, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15

1274B	Redby-Hiwood-Leafriver complex, 0 to 6 percent slopes	HEL	2	0.2	134	0.15
1274B	Redby-Hiwood-Leafriver complex, 0 to 6 percent slopes	NHEL	5	0.2	134	0.15
541	Rifle mucky peat, map 18-22, 0 to 1 percent slopes	NHEL	5	0.0	56	0.15
582	Roliss loam, 0 to 2 percent slopes	NHEL	5	0.3	48	0.15
387	Roliss loam, depressional, 0 to 1 percent slopes	NHEL	5	0.2	48	0.15
712	Rosewood fine sandy loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
I91A	Rosewood fine sandy loam, dense till, 0 to 2 percent slopes	NHEL	3	0.2	86	0.11
1181	Rosewood-Ulen complex, 0 to 2 percent slopes	NHEL	3	0.2	86	0.11
708	Rushlake loamy sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
532	Sago muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.15
1191	Sahkahtay sandy loam, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15
1154	Sax muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
540	Seelyeville muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.17
I58A	Seelyeville muck, 0 to 1 percent slopes	NHEL	5	0.0	0	0.11
1031	Seelyeville muck, ponded, 0 to 1 percent slopes	NHEL	5	0.0	0	0.32
1158	Skagen loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.11
I125A	Skagen loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.11
1170	Skagen loam, 0 to 3 percent slopes, very cobbly	NHEL	5	0.3	0	0.11
I117A	Skagen loam, 0 to 3 percent slopes, very cobbly	NHEL	5	0.3	0	0.15
1133B	Skime loamy fine sand, 0 to 4 percent slopes	NHEL	5	0.2	134	0.15
1133B	Skime loamy fine sand, 0 to 4 percent slopes	NHEL	5	0.2	134	0.11
147	Spooner very fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.4	86	0.15
432	Strandquist loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.11
I104A	Strandquist loam, dense till, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
1144	Strathcona and Kratka soils, depressional, 0 to 1 percent slopes	NHEL	5	0.2	86	0.15
439	Strathcona fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15
I94A	Strathcona fine sandy loam, dense till, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15
I107A	Syrene mucky sandy loam, depressional, dense till, 0 to 1 percent slopes	NHEL	3	0.2	86	0.15
435	Syrene sandy loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.11
I108A	Syrene sandy loam, dense till, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
1314	Tacoosh mucky peat, map 22-30, 0 to 1 percent slopes	NHEL	2	0.0	56	0.15
627	Tawas muck, map 22-30, 0 to 1 percent slopes	NHEL	4	0.0	134	0.11
651	Thiefriver fine sandy loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
1399B	Two Inlets loamy sand, noncalcareous substratum, 0 to 6 percent slopes	NHEL	5	0.2	134	0.15
1399B	Two Inlets loamy sand, noncalcareous substratum, 0 to 6 percent slopes	NHEL	5	0.2	134	0.15
64	Ulen fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
I98A	Ulen fine sandy loam, dense till, 0 to 3 percent slopes	NHEL	5	0.2	86	0.17
I74A	Urban land-Endoaquents complex, 0 to 3 percent slopes	PHEL	5	0.2	134	0.15
569	Wabanica silt loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.23
1182	Warroad fine sandy loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.23
W	Water	NHEL				0.15
1356	Water, miscellaneous					0.17
1316	Wheatville loam, 0 to 2 percent slopes	NHEL	4	0.3	86	0.23

630	Wildwood muck, 0 to 1 percent slopes	HEL	3	0.0	134	0.15
I83A	Wildwood muck, dense till, 0 to 1 percent slopes	HEL	3	0.0	134	0.11
755	Woodslake clay, 0 to 1 percent slopes	NHEL	5	0.3	86	0.15
1444	Wurtsmith loamy sand, map 22-30, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
158B	Zimmerman fine sand, 1 to 6 percent slopes	HEL	5	0.2	250	0.11
158B	Zimmerman fine sand, 1 to 6 percent slopes	HEL	5	0.2	250	0.15
568	Zippel very fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15

Highly Erodible Soil Map Unit List - Western Roseau County, MN

C = .25

R = 70

This data is only to be used for HELC determinations.

This is the "frozen data" based on 01/01/1990 information. Values other than "HELHC" should only be used for PHEL.

Mapunit

Symbol	Mapunit Name	HELHC	T	K	I	LS
767	Auganaush loam, 0 to 2 percent slopes	NHEL	3	0.3	48	0.15
1326	Augsburg and Wabanica soils, depressional, 0 to 1 percent slopes	NHEL	4	0.3	86	0.11
52	Augsburg loam, 0 to 2 percent slopes	NHEL	4	0.3	86	0.15
I110A	Augsburg, Borup, and Colvin soils, very poorly drained, 0 to 1 percent slopes	NHEL	4	0.3	86	0.15
167B	Baudette fine sandy loam, 1 to 6 percent slopes	NHEL	5	0.3	86	0.15
167B	Baudette fine sandy loam, 1 to 6 percent slopes	NHEL	5	0.3	86	0.15
67	Bearden silt loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
733	Berner muck, 0 to 1 percent slopes	HEL	2	0.0	134	0.11
I99A	Berner muck, dense till, 0 to 1 percent slopes	HEL	2	0.0	134	0.11
1404	Berner muck, wooded, 0 to 1 percent slopes	HEL	2	0.0	134	0.11
I79A	Berner, Cathro, and Haug soils, ponded, dense till, 0 to 1 percent slopes	NHEL	5	0.0	0	0.11
644	Boash clay loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
1298	Borup silt loam, 0 to 2 percent slopes	NHEL	4	0.3	86	0.15
1134	Borup-Glyndon complex, 0 to 2 percent slopes	NHEL	4	0.3	86	0.15
561	Bullwinkle muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
I82A	Cathro muck, dense till, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
544	Cathro muck, map 18-22, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
1807	Cathro muck, ponded, map 22-30, 0 to 1 percent slopes	NHEL	5	0.0	0	0.11
404	Chilgren fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
794	Clearriver loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
47	Colvin silty clay loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
721B	Corliss loamy sand, 1 to 6 percent slopes	NHEL	5	0.2	134	0.15
721B	Corliss loamy sand, 1 to 6 percent slopes	NHEL	5	0.2	134	0.15
117	Cormant loamy fine sand, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
I97A	Cormant loamy fine sand, dense till, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
1206	Cormant-Redby complex, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
1918	Croke very fine sandy loam, 0 to 2 percent slopes	NHEL	4	0.3	86	0.15
133	Dalbo loam, 0 to 3 percent slopes	NHEL	5	0.4	48	0.15
547	Deerwood muck, 0 to 1 percent slopes	HEL	3	0.0	134	0.11
I11A	Deerwood muck, 0 to 1 percent slopes	HEL	3	0.0	134	0.11
I77A	Deerwood muck, dense till, 0 to 1 percent slopes	HEL	3	0.0	134	0.11
550	Dora muck, 0 to 1 percent slopes	NHEL	4	0.0	134	0.11
1187	Dora muck, ponded, 0 to 1 percent slopes	NHEL	5	0.0	0	0.11
1333	Dora muck, wooded, 0 to 1 percent slopes	HEL	4	0.0	134	0.11
565	Eckvoll loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
145	Enstrom loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15

I106A	Enstrom loamy fine sand, dense till, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
191	Epoufette loamy fine sand, map 22-30, 0 to 2 percent slopes	NHEL	4	0.2	86	0.15
645	Espelie fine sandy loam, 0 to 2 percent slopes	NHEL	4	0.2	86	0.15
570	Faunce loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
I109A	Fluvaquents, 0 to 2 percent slopes, flooded	NHEL	5	0.2	56	0.15
1002	Fluvaquents, 0 to 2 percent slopes, frequently flooded	NHEL	5	0.2	56	0.15
I16F	Fluvaquents, flooded-Hapludolls complex, 0 to 30 percent slopes	PHEL	5	0.2	86	0.15
1067	Fluvaquents, frequently flooded-Hapludalfs complex, 0 to 60 percent slopes	PHEL	5	0.2	86	0.15
1302	Foldahl fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
I114A	Foldahl fine sandy loam, dense till, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
65	Foxhome sandy loam, 0 to 3 percent slopes	NHEL	3	0.2	86	0.15
I101A	Foxhome sandy loam, dense till, 0 to 3 percent slopes	NHEL	3	0.2	86	0.15
77	Garnes fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.3	86	0.15
I115A	Garnes fine sandy loam, dense till, 0 to 3 percent slopes, very stony	NHEL	5	0.3	86	0.15
1923B	Garnes loam, 1 to 4 percent slopes, very stony	NHEL	5	0.3	0	0.23
1923B	Garnes loam, 1 to 4 percent slopes, very stony	NHEL	5	0.3	86	0.15
1304	Glyndon very fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
I92A	Grano clay, dense till, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
1448	Grano clay, map 18-22, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
1449	Grano loam, map 18-22, 0 to 2 percent slopes	NHEL	5	0.2	56	0.15
59	Grimstad fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
I113A	Grimstad fine sandy loam, dense till, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15
482	Grygla loamy fine sand, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
I116A	Grygla loamy fine sand, dense till, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
1401	Grygla mucky loamy fine sand, depressional, 0 to 1 percent slopes	NHEL	5	0.2	134	0.11
111	Hangaard sandy loam, 0 to 2 percent slopes	HEL	2	0.2	86	0.15
I28A	Hangaard sandy loam, 0 to 2 percent slopes	HEL	2	0.2	86	0.15
I105A	Hangaard sandy loam, dense till, 0 to 2 percent slopes	HEL	2	0.2	86	0.15
187	Haug muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
I88A	Haug muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
1305	Hilaire fine sandy loam, 0 to 3 percent slopes	NHEL	4	0.2	86	0.15
48B	Hiwood fine sand, 1 to 6 percent slopes	HEL	5	0.2	250	0.15
48B	Hiwood fine sand, 1 to 6 percent slopes	HEL	5	0.2	250	0.15
643	Huot fine sandy loam, 0 to 3 percent slopes	NHEL	4	0.2	86	0.15
I35A	Karlsruhe sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
1428	Karlsruhe sandy loam, map 18-22, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
205	Karlstad loamy sand, 0 to 3 percent slopes	NHEL	3	0.2	86	0.15
I76A	Karlstad loamy sand, 0 to 3 percent slopes	NHEL	3	0.2	86	0.15
1327B	Karlstad-Marquette complex, 0 to 8 percent slopes	HEL	2	0.2	134	0.32
I80B	Karlstad-Marquette complex, 0 to 8 percent slopes	HEL	2	0.2	134	0.32
1327B	Karlstad-Marquette complex, 0 to 8 percent slopes	HEL	2	0.2	134	0.17
I95A	Kratka and Strathcona soils, depressional, dense till, 0 to 1 percent slopes	NHEL	5	0.2	86	0.11
481	Kratka fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15

I103A	Kratka fine sandy loam, dense till, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15
1405	Lallie mucky silt loam, map 18-22, 0 to 1 percent slopes	NHEL	5	0.4	0	0.11
1984	Leafriver muck, 0 to 1 percent slopes	HEL	2	0.0	134	0.11
1402	Leafriver muck, wooded, 0 to 1 percent slopes	HEL	2	0.0	134	0.11
546	Lupton muck, map 22-30, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
737	Mahkonce fine sandy loam, 0 to 3 percent slopes	NHEL	3	0.3	86	0.15
I41A	Markey muck, 0 to 1 percent slopes	HEL	4	0.0	134	0.11
543	Markey muck, map 18-22, 0 to 1 percent slopes	HEL	4	0.0	134	0.11
I42A	Markey muck, ponded, 0 to 1 percent slopes	NHEL	4	0.0	0	0.11
1808	Markey muck, ponded, map 22-30, 0 to 1 percent slopes	NHEL	4	0.0	0	0.11
242B	Marquette loamy sand, 1 to 8 percent slopes	HEL	2	0.2	134	0.17
I78B	Marquette loamy sand, 1 to 8 percent slopes	HEL	2	0.2	134	0.17
242B	Marquette loamy sand, 1 to 8 percent slopes	HEL	2	0.2	134	0.17
412	Mavie fine sandy loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
I102A	Mavie fine sandy loam, dense till, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
202	Meehan loamy sand, map 22-30, 0 to 2 percent slopes	NHEL	5	0.2	134	0.15
534	Mooselake mucky peat, 0 to 1 percent slopes	NHEL	5	0.0	56	0.11
I179B	Moranville loamy fine sand, 0 to 4 percent slopes	NHEL	5	0.2	134	0.23
I179B	Moranville loamy fine sand, 0 to 4 percent slopes	NHEL	5	0.2	134	0.23
1214	Mustinka clay loam, 0 to 1 percent slopes	NHEL	5	0.3	38	0.11
583	Nereson fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
I126A	Nereson fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
I89A	Nereson fine sandy loam, 0 to 3 percent slopes, very cobbly	NHEL	5	0.2	86	0.15
563	Northwood muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
I81A	Northwood muck, dense till, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
1328	Northwood muck, wooded, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
280	Pelan sandy loam, 0 to 3 percent slopes	NHEL	3	0.2	86	0.15
I87A	Pelan sandy loam, dense till, 0 to 3 percent slopes	NHEL	3	0.2	86	0.15
581	Percy fine sandy loam, 0 to 1 percent slopes	NHEL	5	0.3	86	0.15
383	Percy loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
I127A	Percy loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
I85A	Percy loam, 0 to 2 percent slopes, bouldery	NHEL	5	0.3	0	0.15
379	Percy loam, 0 to 2 percent slopes, very cobbly	NHEL	5	0.3	0	0.15
I84A	Percy loam, 0 to 2 percent slopes, very cobbly	NHEL	5	0.3	0	0.15
384	Percy mucky loam, depressional, 0 to 1 percent slopes	NHEL	5	0.2	48	0.11
I86A	Percy mucky loam, depressional, 0 to 1 percent slopes	NHEL	5	0.2	48	0.11
1030	Pits, gravel-Udipsamments complex, 1 to 50 percent slopes	PHEL	5	0.2	134	0.15
I47A	Poppleton fine sand, 0 to 3 percent slopes	HEL	5	0.2	250	0.15
I118A	Poppleton fine sand, dense till, 0 to 2 percent slopes	HEL	5	0.2	250	0.15
I75A	Radium-Sandberg-Garborg complex, 0 to 3 percent slopes	PHEL	5	0.2	86	0.15
116	Redby loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
I90A	Redby loamy fine sand, dense till, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
I274B	Redby-Hiwood-Leafriver complex, 0 to 6 percent slopes	HEL	2	0.2	134	0.11

1274B	Redby-Hiwood-Leafriver complex, 0 to 6 percent slopes	NHEL	5	0.2	134	0.15
541	Rifle mucky peat, map 18-22, 0 to 1 percent slopes	NHEL	5	0.0	56	0.11
582	Roliss loam, 0 to 2 percent slopes	NHEL	5	0.3	48	0.15
387	Roliss loam, depressional, 0 to 1 percent slopes	NHEL	5	0.2	48	0.15
712	Rosewood fine sandy loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
I91A	Rosewood fine sandy loam, dense till, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
1181	Rosewood-Ulen complex, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
708	Rushlake loamy sand, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
532	Sago muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
1191	Sahkahtay sandy loam, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15
1154	Sax muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
540	Seelyeville muck, 0 to 1 percent slopes	NHEL	5	0.0	134	0.11
I58A	Seelyeville muck, 0 to 1 percent slopes	NHEL	5	0.0	0	0.11
1031	Seelyeville muck, ponded, 0 to 1 percent slopes	NHEL	5	0.0	0	0.11
1158	Skagen loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
I125A	Skagen loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
1170	Skagen loam, 0 to 3 percent slopes, very cobbly	NHEL	5	0.3	0	0.15
I117A	Skagen loam, 0 to 3 percent slopes, very cobbly	NHEL	5	0.3	0	0.15
1133B	Skime loamy fine sand, 0 to 4 percent slopes	NHEL	5	0.2	134	0.23
1133B	Skime loamy fine sand, 0 to 4 percent slopes	NHEL	5	0.2	134	0.23
147	Spooner very fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.4	86	0.15
432	Strandquist loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
I104A	Strandquist loam, dense till, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
1144	Strathcona and Kratka soils, depressional, 0 to 1 percent slopes	NHEL	5	0.2	86	0.11
439	Strathcona fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15
I94A	Strathcona fine sandy loam, dense till, 0 to 2 percent slopes	NHEL	5	0.2	86	0.15
I107A	Syrene mucky sandy loam, depressional, dense till, 0 to 1 percent slopes	NHEL	3	0.2	86	0.15
435	Syrene sandy loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
I108A	Syrene sandy loam, dense till, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
1314	Tacoosh mucky peat, map 22-30, 0 to 1 percent slopes	NHEL	2	0.0	56	0.11
627	Tawas muck, map 22-30, 0 to 1 percent slopes	HEL	4	0.0	134	0.11
651	Thiefriver fine sandy loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
1399B	Two Inlets loamy sand, noncalcareous substratum, 0 to 6 percent slopes	NHEL	5	0.2	134	0.23
1399B	Two Inlets loamy sand, noncalcareous substratum, 0 to 6 percent slopes	NHEL	5	0.2	134	0.23
64	Ulen fine sandy loam, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
I98A	Ulen fine sandy loam, dense till, 0 to 3 percent slopes	NHEL	5	0.2	86	0.15
I74A	Urban land-Endoaquents complex, 0 to 3 percent slopes	PHEL	5	0.2	134	0.15
569	Wabanica silt loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15
1182	Warroad fine sandy loam, 0 to 2 percent slopes	NHEL	3	0.2	86	0.15
W	Water	NHEL				
1356	Water, miscellaneous					
1316	Wheatville loam, 0 to 2 percent slopes	NHEL	4	0.3	86	0.15
630	Wildwood muck, 0 to 1 percent slopes	HEL	3	0.0	134	0.11

I83A	Wildwood muck, dense till, 0 to 1 percent slopes	HEL	3	0.0	134	0.11
755	Woodslake clay, 0 to 1 percent slopes	NHEL	5	0.3	86	0.15
1444	Wurtsmith loamy sand, map 22-30, 0 to 3 percent slopes	NHEL	5	0.2	134	0.15
158B	Zimmerman fine sand, 1 to 6 percent slopes	HEL	5	0.2	250	0.15
158B	Zimmerman fine sand, 1 to 6 percent slopes	HEL	5	0.2	250	0.15
568	Zippel very fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.3	86	0.15