

Highly Erodible Soil Map Unit List - East Beltrami County, MN

C= 0.15

R= 90

This data is only to be used for HEL determinations

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

Mapunit Symbol	Mapunit Name	HELC	T	K	I	Slope Percent	Slope Length	LS
32B	Nebish loam, 1 to 8 percent slopes	NHEL	5	0.24	86	3.00	150	0.32
32C	Nebish loam, 3 to 15 percent slopes	PHEL	5	0.24	86	8.00	100	0.99
32D	Nebish loam, 8 to 30 percent slopes	HEL	5	0.24	86	16.00	60	2.20
48	Hiwood loamy fine sand, 0 to 6 percent slopes	NHEL	5	0.17	134	1.00	150	0.15
72	Shooker loam	NHEL	5	0.32	56	0.50	150	0.11
77	Garnes loam	NHEL	5	0.32	48	1.00	150	0.15
116	Redby loamy fine sand, 0 to 3 percent slopes	NHEL	5	0.17	134	1.00	150	0.15
117	Cormant loamy fine sand, 0 to 2 percent slopes	NHEL	5	0.17	134	0.50	150	0.11
121	Wykeham fine sandy loam, 1 to 3 percent slopes	NHEL	5	0.20	86	2.00	150	0.32
125	Beltrami loam, 1 to 3 percent slopes	NHEL	5	0.24	86	1.00	150	0.15
147	Spooner silt loam	NHEL	5	0.37	56	0.50	150	0.11
167	Baudette silt loam	NHEL	5	0.37	48	1.00	150	0.15

191	Epoufette sandy loam	NHEL	4	0.20	86	0.50	150	0.11
199B	Sol cobbly sandy loam, 1 to 6 percent slopes	NHEL	5	0.20		3.00	150	0.32
199C	Sol cobbly sandy loam, 6 to 12 percent slopes	NHEL	5	0.20		8.00	100	0.99
202	Meehan loamy sand, 0 to 3 percent slopes	NHEL	5	0.17	134	0.50	150	0.11
205	Karlstad loamy sand	NHEL	3	0.17	134	1.00	150	0.15
240B	Warba very fine sandy loam, 1 to 8 percent slopes	NHEL	5	0.20	86	3.00	150	0.32
240C	Warba very fine sandy loam, 3 to 15 percent slopes	NHEL	5	0.20	86	8.00	100	0.99
242B	Sugarbush-Two Inlets complex, 1 to 8 percent slopes	NHEL	2	0.17	134	3.00	150	0.32
242C	Sugarbush-Two Inlets complex, 3 to 15 percent slopes	NHEL	2	0.17	134	8.00	100	0.99
243	Stuntz fine sandy loam	NHEL	5	0.28	86	1.00	150	0.15
267B	Snellman sandy loam, 1 to 8 percent slopes	NHEL	5	0.20	86	3.00	150	0.32
267C	Snellman sandy loam, 8 to 15 percent slopes	NHEL	5	0.20	86	8.00	100	0.99
267D	Snellman sandy loam, 15 to 30 percent slopes	PHEL	5	0.20	86	16.00	60	2.20
272	Bemidji loamy sand	NHEL	5	0.10	134	1.00	150	0.15
280	Pelan sandy loam	NHEL	3	0.24	86	1.00	150	0.15
328B	Sartell loamy fine sand, 1 to 6 percent slopes	NHEL	5	0.15	134	3.00	150	0.32
404	Chilgren loam	NHEL	5	0.28	56	0.50	150	0.11

432	Strandquist loam	NHEL	3	0.32	86	0.50	150	0.11
439	Rockwell fine sandy loam	NHEL	5	0.20	86	0.50	150	0.11
458B	Menahga loamy sand, 1 to 8 percent slopes	NHEL	5	0.15	134	3.00	150	0.32
458D	Menahga loamy sand, 15 to 30 percent slopes	PHEL	5	0.15	134	16.00	50	2.20
481	Kratka fine sandy loam	NHEL	5	0.17	86	0.50	150	0.11
482	Grygla loamy fine sand	NHEL	5	0.15	134	0.50	150	0.11
496B	Andrusia loamy sand, 1 to 6 percent slopes	NHEL	4	0.17	134	3.00	150	0.32
496C	Andrusia loamy sand, 6 to 12 percent slopes	NHEL	4	0.17	134	8.00	100	0.99
496D	Andrusia loamy sand, 12 to 25 percent slopes	PHEL	4	0.17	134	16.00	60	2.20
503B	Balmlake fine sandy loam, 1 to 6 percent slopes	NHEL	5	0.28	86	3.00	150	0.32
503C	Balmlake fine sandy loam, 6 to 12 percent slopes	NHEL	5	0.28	86	8.00	100	0.99
503D	Balmlake fine sandy loam, 12 to 25 percent slopes	HEL	5	0.28	86	16.00	60	2.20
505B	Debs silt loam, 1 to 6 percent slopes	NHEL	5	0.32	56	3.00	150	0.32
505C	Debs silt loam, 6 to 12 percent slopes	PHEL	5	0.32	56	8.00	100	0.99
514	Tacoosh muck	NHEL	5		134	0.50	150	0.11
534	Mooselake mucky peat	NHEL	5		56	0.50	150	0.11
538	Waskish peat	NHEL	5			0.50	150	0.11

540	Seelyeville-Seelyeville, ponded, complex, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
541	Rifle-Rifle, ponded, complex, 0 to 1 percent slopes	NHEL	5		56	0.50	150	0.11
543	Markey muck, occasionally ponded, 0 to 1 percent slopes	NHEL	4		134	0.50	150	0.11
544	Cathro muck, occasionally ponded, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
545	Rondeau muck	NHEL	5		134	0.50	150	0.11
546	Lupton-Lupton, ponded, complex, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
547	Deerwood muck	NHEL	3		134	0.50	150	0.11
549	Greenwood-Greenwood, ponded, complex, 0 to 1 percent slopes	NHEL	5		38	0.50	150	0.11
560	Greenwood-Lobo complex, 0 to 1 percent slopes	NHEL	5		38	0.50	150	0.11
561	Bullwinkle muck	NHEL	5		134	0.50	150	0.11
563	Northwood muck	NHEL	5		134	0.50	150	0.11
565	Eckvoll loamy fine sand	NHEL	5	0.17	134	1.00	150	0.11
582	Roliss loam	NHEL	5	0.28	48	0.50	150	0.11
607	Pengilly very fine sandy loam	NHEL	5	0.24	86	0.50	150	0.11
616	Effie silt loam	NHEL	3	0.37	56	0.50	150	0.11
620B	Cutaway loamy fine sand, 1 to 6 percent slopes	NHEL	5	0.17	134	3.00	150	0.32
620C	Cutaway loamy fine sand, 6 to 12 percent slopes	NHEL	5	0.17	134	8.00	100	0.99

621	Morph fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.24	86	0.50	150	0.11
624	Rosy sandy loam, 0 to 6 percent slopes	NHEL	5	0.24	86	0.50	150	0.11
625	Sandwick loamy fine sand	NHEL	5	0.17	134	0.50	150	0.11
626B	Suomi loam, 1 to 6 percent slopes	NHEL	3	0.43	56	3.00	150	0.32
626C	Suomi loam, 6 to 12 percent slopes	HEL	3	0.43	56	8.00	100	0.99
626D	Suomi loam, 12 to 25 percent slopes	HEL	3	0.43	56	16.00	60	2.20
627	Tawas muck	NHEL	4		134	0.50	150	0.11
628	Talmoon muck	NHEL	5		134	0.50	150	0.11
653	Smiley muck	NHEL	5		134	0.50	150	0.11
672	Willossippi loam	NHEL	5	0.24	86	0.50	150	0.11
676B	Kost loamy fine sand, 0 to 6 percent slopes	NHEL	5	0.17	134	3.00	150	0.47
702	Bullwinkle-Cathro complex	NHEL	5		134	0.50	150	0.11
709B	Lengby sandy loam, 1 to 6 percent slopes	NHEL	5	0.24	86	3.00	150	0.32
709C	Lengby sandy loam, 6 to 12 percent slopes	NHEL	5	0.24	86	8.00	100	0.99
709D	Lengby sandy loam, 12 to 25 percent slopes	PHEL	5	0.24	86	16.00	60	2.20
712	Rosewood fine sandy loam	NHEL	3	0.24	86	0.50	150	0.11
765	Smiley loam	NHEL	5	0.24	56	0.50	150	0.11

799	Seelyeville and Bowstring soils	NHEL	5		134	0.50	150	0.11
1033	Aquic Udipsamments-Aquents complex, 0 to 3 percent slopes	NHEL	5	0.17	134	0.50	150	0.11
1057	Fluvaquents, frequently flooded-Hapludalfs complex, 0 to 35 percent slopes	NHEL	4	0.20	86	25.00	30	3.00
1085B	Urban land-Graycalm complex, 1 to 6 percent slopes	NHEL	5	0.17	134	3.00	150	0.32
1085C	Urban land-Graycalm complex, 6 to 12 percent slopes	NHEL	5	0.17	134	8.00	100	0.99
1086	Urban land-Cormant complex	NHEL	5	0.17	134	0.50	150	0.11
1113	Haslie, Seelyeville, and Cathro soils, frequently ponded, 0 to 1 percent slopes	NHEL	5			0.50	150	0.11
1164	Zerkel loam	NHEL	5	0.24	86	0.50	150	0.11
1200	Egglake loam, 0 to 2 percent slopes	NHEL	5	0.28	56	0.50	150	0.11
1206	Cormant-Redby complex, 0 to 2 percent slopes	NHEL	5	0.17	134	1.00	150	0.15
1804	Hamre muck, ponded	NHEL	5			0.50	150	0.11
1878	Hamre muck	NHEL	5		134	0.50	150	0.11
1922	Chilgren sandy loam, very stony	NHEL	5	0.28		0.50	150	0.11
1923	Garnes fine sandy loam, very stony	NHEL	5	0.32		1.00	150	0.15
1924	Grygla loamy fine sand, very stony	NHEL	5	0.15		0.50	150	0.11
1925	Eckvoll loamy fine sand, very stony	NHEL	5	0.17		1.00	150	0.15
1935	Epoufette muck	NHEL	4	0.10	134	0.50	150	0.11

1959	Nary cobbly fine sandy loam	NHEL	5	0.20		1.00	150	0.15
1991	Stuntz loam	NHEL	5	0.28	86	0.50	150	0.11
1993B	Snellman-Wykeham complex, 1 to 8 percent slopes	NHEL	5	0.20	86	3.00	150	0.23
2017B	Zimmerman-Andrusia complex, 1 to 8 percent slopes	NHEL	4	0.17	134	3.00	150	0.32
2017C	Zimmerman-Andrusia complex, 8 to 15 percent slopes	NHEL	4	0.17	134	12.00	100	1.80
2017E	Zimmerman-Andrusia complex, 15 to 30 percent slopes	HEL	4	0.17	134	20.00	6	3.00
2018B	Eagleview-Two Inlets complex, 1 to 8 percent slopes, pitted	NHEL	5	0.17	134	4.00	150	0.47
2018C	Eagleview-Two Inlets complex, 8 to 15 percent slopes, pitted	NHEL	5	0.17	134	12.00	100	1.80
2018E	Eagleview-Two Inlets complex, 15 to 30 percent slopes	PHEL	5	0.17	134	18.00	60	2.60
2020B	Zimmerman-Snellman complex, 1 to 8 percent slopes	NHEL	5	0.20	86	4.00	150	0.47
2020C	Zimmerman-Snellman complex, 8 to 15 percent slopes	PHEL	5	0.20	86	12.00	100	1.80
2020E	Zimmerman-Snellman complex, 15 to 30 percent slopes	HEL	5	0.20	86	18.00	60	2.60
2021B	Debs, till substratum-Snellman complex, 1 to 8 percent slopes	NHEL	5	0.32	56	4.00	150	0.47
2021C	Debs, till substratum-Snellman complex, 8 to 15 percent slopes	PHEL	5	0.32	56	12.00	100	1.80
2021E	Debs, till substratum-Snellman complex, 15 to 30 percent slopes	HEL	5	0.32	56	18.00	60	2.60
2022B	Wykeham-Baudette, till substratum complex, 1 to 4 percent slopes	NHEL	5	0.37	48	1.00	150	0.15
2023A	Egglake-Spooner, till substratum complex, 0 to 2 percent slopes	NHEL	5	0.37	56	0.50	150	0.11

2024B	Snellman-Zimmerman complex, 1 to 8 percent slopes, pitted	NHEL	5	0.20	86	4.00	150	0.47
2025A	Fluvaquents, frequently flooded-Egglake-Sax complex, 0 to 2 percent slopes	NHEL	5	0.28	56	0.50	150	0.11
2026B	Lengby-Snellman complex, 1 to 8 percent slopes	NHEL	5	0.24	86	4.00	150	0.47
2026C	Lengby-Snellman complex, 8 to 15 percent slopes	PHEL	5	0.24	86	12.00	100	1.80
2026E	Lengby-Snellman complex, 15 to 30 percent slopes	HEL	5	0.24	86	18.00	60	2.60
2034B	Zimmerman fine sand, 0 to 6 percent slopes	NHEL	5	0.17	134	3.00	150	0.32
2035A	Epoufette sandy loam, 0 to 2 percent slopes	NHEL	4	0.20	86	0.50	150	0.11
2037A	Karlstad loamy sand, 0 to 3 percent slopes	NHEL	3	0.17	134	1.00	150	
2038B	Marquette loamy sand, 1 to 6 percent slopes	NHEL	2	0.17	134	3.00	150	0.32
2038C	Marquette loamy sand, 6 to 12 percent slopes	NHEL	2	0.17	134	8.00	100	0.99
A1B	Eagleview-Menahga complex, 1 to 8 percent slopes	NHEL	5	0.17	134	3.00	150	0.32
A1C	Eagleview-Menahga complex, 3 to 15 percent slopes	NHEL	5	0.17	134	8.00	100	0.99
A60B	Zimmerman loamy fine sand, 1 to 6 percent slopes	NHEL	5	0.17	134	3.00	150	0.32
A60C	Zimmerman loamy fine sand, 6 to 12 percent slopes	NHEL	5	0.17	134	8.00	100	0.99
A92B	Zimmerman-Hiwood complex, 1 to 8 percent slopes	NHEL	5	0.17	134	8.00	100	0.99
B43A	Northwood-Berner complex, mlra 88, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
B54A	Spooner-Littleswan complex, 0 to 2 percent slopes	NHEL						

B56A	Sax, frequently ponded-Spooner complex, 0 to 1 percent slopes	NHEL						
B57A	Littleswan silt loam, 0 to 3 percent slopes	NHEL						
B57B	Baudette-Littleswan complex, 0 to 6 percent slopes	NHEL						
B58B	Wurtsmith-Meehan complex, 0 to 4 percent slopes	NHEL	5	0.17	134	0.50	150	0.11
B60B	Ricelake-Cutaway complex, mlra 88, 1 to 4 percent slopes	NHEL	5	0.17	134	1.00	150	0.15
B70A	Ricelake-Blomford complex, mlra 88, 0 to 3 percent slopes	NHEL	5	0.17	134	1.00	150	0.15
B76A	Deford-Leafriver complex, 0 to 2 percent slopes	NHEL	5		134	0.50	150	0.11
B77A	Meehan-Deford complex, 0 to 3 percent slopes	NHEL	5	0.17	134	0.50	150	0.11
B78B	Graycalm-Grettum complex, 1 to 8 percent slopes	NHEL	5	0.17	134	4.00	150	0.47
B109A	Bowstring and Fluvaquents soils, des moines, 0 to 2 percent slopes, frequently flooded	NHEL	5		134	0.50	150	0.11
B200A	Garnes fine sandy loam, des moines, 0 to 3 percent slopes	NHEL	5	0.32	48	1.00	150	0.15
B201A	Chilgren fine sandy loam, des moines, 0 to 2 percent slopes	NHEL	5	0.28	56	0.50	150	0.11
B202A	Cathro muck, depressional, des moines, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
B203A	Northwood muck, depressional, des moines, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
B204A	Roliss loam, des moines, 0 to 2 percent slopes	NHEL	5	0.28	48	0.50	150	0.11
B205A	Berner muck, depressional, des moines, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
B206A	Hamre muck, depressional, des moines, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11

B207A	Pelan sandy loam, des moines, 0 to 3 percent slopes	NHEL	3	0.24	86	1.00	150	0.15
B208A	Grygla loamy fine sand, des moines, 0 to 2 percent slopes	NHEL	5	0.15	134	0.50	150	0.11
B210A	Eckvoll loamy fine sand, des moines, 0 to 3 percent slopes	NHEL	5	0.17	134	1.00	150	0.11
B211A	Berner and Cathro soils, ponded, des moines, 0 to 1 percent slopes	NHEL	5			0.50	150	0.11
GP	Pits, gravel-Udipsammments complex	NHEL	5	0.17	134	3.00	150	0.32
H87	Suomi-Aeric Glossaqualfs, loamy association, nearly level and undulating	NHEL	3	0.43	56	3.00	150	0.32
H88	Suomi-Aeric Glossaqualfs, loamy association, gently undulating to hilly	HEL	3	0.43	56	8.00	100	0.99
I8A	Cathro muck, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
I11A	Deerwood muck, 0 to 1 percent slopes	NHEL	3		134	0.50	150	0.11
I12A	Eckvoll loamy fine sand, 0 to 2 percent slopes	NHEL	5	0.17	134	1.00	150	0.11
I27A	Hamre muck, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
I38A	Kratka fine sandy loam, loamy till substratum, 0 to 1 percent slopes	NHEL	5	0.17	86	0.50	150	0.11
I41A	Markey muck, 0 to 1 percent slopes	NHEL	4		134	0.50	150	0.11
I42A	Markey muck, ponded, 0 to 1 percent slopes	NHEL	4			0.50	150	0.11
I45A	Northwood muck, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
I47A	Poppleton fine sand, 0 to 2 percent slopes	NHEL	5	0.17	134	1.00	150	0.11
I50A	Reiner fine sandy loam, 0 to 2 percent slopes	NHEL	5	0.17	134	3.00	150	0.32

I53A	Roliss loam, 0 to 2 percent slopes	NHEL	5	0.28	48	0.50	150	0.11
I55A	Rosewood fine sandy loam, Aspen Parkland, 0 to 1 percent slopes	NHEL	3	0.24	86	0.50	150	0.11
I58A	Seelyeville muck, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
I59A	Smiley loam, 0 to 1 percent slopes	NHEL	5	0.24	56	0.50	150	0.11
I60A	Smiley mucky loam, 0 to 1 percent slopes	NHEL	5	0.24	134	0.50	150	0.11
I61A	Strandquist loam, 0 to 1 percent slopes	NHEL	3	0.32	86	0.50	150	0.11
I71A	Berner and Cathro soils, ponded, 0 to 1 percent slopes	NHEL	5			0.50	150	0.11
I72A	Pelan sandy loam, 0 to 2 percent slopes	NHEL	3	0.24	86	1.00	150	0.15
I76A	Karlstad loamy sand, 0 to 3 percent slopes	NHEL	3	0.17	134	1.00	150	
I81A	Northwood muck, dense till, 0 to 1 percent slopes	NHEL	5		134	0.50	150	0.11
I90A	Redby loamy fine sand, dense till, 0 to 3 percent slopes	NHEL	5	0.17	134	1.00	150	0.15
I104A	Strandquist loam, dense till, 0 to 1 percent slopes	NHEL	3	0.32	86	0.50	150	0.11
I116A	Grygla loamy fine sand, dense till, 0 to 1 percent slopes	NHEL	5	0.15	134	0.50	150	0.11
I171A	Rockwell fine sandy loam, 0 to 1 percent slopes	NHEL	5	0.20	86	0.50	150	0.11
I756A	Grygla loamy fine sand, 0 to 1 percent slopes	NHEL	5	0.15	134	0.50	150	0.11
I777A	Northwood muck, 0 to 1 percent slopes, very stony	NHEL	5		134	0.50	150	0.11
I804A	Eckvoll loamy fine sand, dense till, 0 to 2 percent slopes	NHEL	5	0.17	134	1.00	150	0.11

I805A	Eckvoll loamy fine sand, 0 to 2 percent slopes, very stony	NHEL	5	0.17		1.00	150	0.15
IGp	Pits, gravel and sand	NHEL	5	0.17	134	3.00	150	0.32
IWa	Water							
J7	Warba-Stuntz association, nearly level and undulating	NHEL	5	0.20	86	3.00	150	0.32
J8	Glossic Eutroboralfs, loamy, rolling and hilly	PHEL	4	0.17	134	16.00	60	2.20
J9	Aeric Glossaqualfs, clayey subsoil	NHEL	5	0.17	134	3.00	150	0.32
J10	Aqualfs	NHEL	5	0.15	134	0.50	150	0.11
J11	Warba-Stuntz-Arenic Eutroboralfs association, nearly level and undulating	NHEL	5	0.28	86	3.00	150	0.32
J19	Aquic Eutroboralfs, loamy, nearly level and undulating	NHEL	4	0.17	134	3.00	150	0.32
M-W	Water, miscellaneous							
N80	Cutaway-Hiwood association, nearly level and undulating	NHEL	5	0.17	134	3.00	150	0.32
N84	Humaquepts	NHEL	5		134	0.50	150	0.11
O97	Humaquepts, sandy	NHEL	5			0.50	150	0.11
W	Water							
X01	Histosols, depressional	NHEL	5		134	0.50	150	0.11
X02	Typic Borohemists, acid	NHEL	5		134	0.50	150	0.11
X03	Typic Borohemists, nonacid-Typic Borosaprists association	NHEL	5		134	0.50	150	0.11

X04	Typic Borosaprist-Bowstring association	NHEL	5		134	0.50	150	0.11
X05	Typic Borohemists, nonacid	NHEL	5		134	0.50	150	0.11