

Highly Erodible Soil Map Unit List - ST. LOUIS COUNTY - VIRGINIA PART, MN

C=.09

R=90

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

musym	muname	HEL	T	K	I	slope_%	slope_l	LS
1003B	Udorthents, loamy (cut and fill land)	NHEL						
1007	Udorthents, shallow (sanitary landfill)	NHEL						
1012A	Lobo-Washkish complex (raised bog), 0 to 2 percent slopes	NHEL	5	0	38	0.2	80	0.08
1014A	Uskabwanka peat (floating bog), 0 to 1 percent slopes	NHEL	5	0	38	0.2	80	0.08
1020A	Bowstring muck and Fluvaquents, loamy, 0 to 2 percent slopes, frequently flooded	NHEL	5	0	134	0.2	80	0.08
1021A	Rifle soils, 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
1022A	Greenwood soils, 0 to 1 percent slopes	NHEL	5	0	38	0.2	80	0.08
1048	Dumps, iron mine	NHEL						
1049	Pits, iron mine	NHEL						
1050	Tailings basin	NHEL						
A1B	Graycalm-Grayling complex, 1 to 8 percent slopes	NHEL	5	.15	220	5	80	0.48
A2D	Graycalm-Grayling-Leander complex, pitted, 0 to 18 percent slopes	PHEL	5	.15	220	12	80	1.60
A2E	Graycalm-Grayling-Leander complex, pitted, 0 to 45 percent slopes	HEL	5	.15	220	25	80	5.50
A3B	Wurtsmith-Friendship complex, 1 to 4 percent slopes	NHEL	5	.17	134	2	80	0.19
A5A	Roscommon muck, depressional, 0 to 1 percent slopes	NHEL	2	0	134	0.2	80	0.08
A6A	Keewatin loam, 0 to 3 percent slopes, stony	NHEL	3	.28	86	1	80	0.12
A7B	Keewatin-Nashwauk complex, 0 to 8 percent slopes, stony	NHEL	3	.28	86	5	80	0.48
A8D	Greatscott-Nashwauk-Balkan, depressional, complex, 0 to 18 percent slopes, stony	PHEL	3	.28	86	12	80	1.60
A9D	Greatscott loam, 8 to 18 percent slopes, stony	PHEL	3	.28	86	12	80	1.60
A10E	Greatscott-Greatscott sandy substratum, complex, 18 to 45 percent slopes, stony	HEL	2	.17	86	25	80	7.00
A11A	Keewatin-Balkan complex, 0 to 3 percent slopes, stony	NHEL	3	.28	86	1	80	0.12
A12B	Daybrook sandy loam, 1 to 8 percent slopes	NHEL	3	.28	86	5	80	0.48
A13A	Shenango sandy loam, 0 to 2 percent slopes	NHEL	3	.28	86	1	80	0.12
A14A	Balkan, depressional-Balkan complex, 0 to 2 percent slopes, stony	NHEL	3	.28	86	1	80	0.12
A21B	Graycalm-Keenan complex, 1 to 8 percent slopes	NHEL	5	.15	220	5	80	0.48
A23D	Nashwauk, stony-Keewatin, stony-Rock outcrop complex, 2 to 25 percent slopes	PHEL	3	.28	86	12	80	1.60
A24A	Merwin peat (Greatscott catena), 0 to 1 percent slopes	NHEL	5	0	38	0.2	80	0.08
A26A	Tacoosh mucky peat (Greatscott catena), 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
A27A	Cathro muck, depressional (Greatscott catena), 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
B1C	Taylor silty clay loam, 4 to 12 percent slopes	PHEL	3	.28	86	12	80	1.60
B1D	Taylor silty clay loam, 12 to 25 percent slopes	HEL	3	.32	48	12	80	1.60
B2A	Indus-Woodslake, depressional, complex, 0 to 1 percent slopes	NHEL	5	.28	86	1	100	0.12
B3B	Alango-Indus complex, 1 to 4 percent slopes	NHEL	5	.28	86	1	100	0.12
B4A	Indus-Dora, depressional, complex, 0 to 2 percent slopes	NHEL	5	.28	86	1	100	0.12
B5B	Alango-Taylor-Woodslake, depressional, complex, 0 to 6 percent slopes	NHEL	3	.43	38	0.5	100	0.10
B6B	Morcom-Thistledeew complex, 0 to 6 percent slopes	NHEL	4	.15	134	4	80	0.59

Highly Erodible Soil Map Unit List - ST. LOUIS COUNTY - VIRGINIA PART, MN

C=.09

R=90

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

musym	muname	HEL	T	K	I	slope_%	slope_l	LS
B7D	Udorthents, slumped-Thistledew-Taylor complex, 10 to 25 percent slopes	PHEL	3	.28	86	12	80	2.80
B8A	Bearville loamy sand, 0 to 2 percent slopes	NHEL	5	.17	134	1	80	0.12
B9A	Greaney and Dora soils, 0 to 1 percent slopes, frequently flooded	NHEL	5	.32	56	1	80	0.12
B10B	Rollins sandy loam, 2 to 8 percent slopes	NHEL	2	.20	86	5	80	0.48
B10D	Rollins sandy loam, 8 to 18 percent slopes	PHEL	2	.10	0	12	80	1.60
B11B	Taylor-Taylor, sandy substratum, complex, 2 to 6 percent slopes	PHEL	3	.43	38	5	100	0.54
B11C	Taylor-Taylor, sandy substratum, complex, 6 to 12 percent slopes	PHEL	3	.28	86	12	80	1.60
B12D	Taylor-Greaney, frequently flooded, complex, 0 to 25 percent slopes	HEL	3	.32	48	12	80	1.60
B15A	Morph fine sandy loam, 0 to 2 percent slopes	NHEL	5	.37	56	1	100	0.13
B16B	Westoo-Barber-Vasso complex, 0 to 6 percent slopes	NHEL	5	.17	134	2	80	0.19
B17B	Graycalm-Biwabik complex, 1 to 6 percent slopes	NHEL	5	.15	220	5	80	0.48
B17D	Graycalm-Biwabik complex, pitted, 6 to 25 percent slopes	PHEL	5	.15	220	12	80	1.60
B18A	Foglake-Hassman, depressional, complex, 0 to 2 percent slopes	NHEL	5	.28	86	1	100	0.13
B19B	Longsiding-Foglake-Grasston complex, 0 to 6 percent slopes	NHEL	3	.32	48	3	80	0.27
B23A	Effie-Ashlake complex, MLRA 88, 0 to 2 percent slopes	NHEL	5	.28	86	1	100	0.13
B24B	Ashlake-Suomi-Effie complex, MLRA 88, 1 to 4 percent slopes	NHEL	5	.28	86	2	100	0.18
B25C	Suomi-Ashlake complex, MLRA 88, 6 to 15 percent slopes	PHEL	3	.28	86	12	80	1.60
B26A	Daisybay-Greenwood complex, 0 to 1 percent slopes	NHEL	5	0	38	0.2	80	0.08
B27A	McQuade-Buhl complex, 0 to 3 percent slopes	NHEL	5	.28	86	1	100	0.13
B28B	Buhl loam, 1 to 5 percent slopes	NHEL	3	.28	86	3	80	0.27
B29B	Hibbing-Buhl complex, 1 to 8 percent slopes	NHEL	3	.32	48	5	80	0.48
B29D	Hibbing-Buhl complex, 1 to 18 percent slopes	PHEL	3	.32	48	12	80	1.60
B30A	Sago muck, 0 to 1 percent slopes, frequently ponded	NHEL	5	0	134	0.2	80	0.08
B31D	Hibbing loam, 8 to 18 percent slopes	HEL	3	.32	48	12	80	1.60
B31E	Hibbing loam, 18 to 30 percent slopes	HEL	2	.17	0	25	80	7.00
B32A	McQuade-Dora, depressional-Fayal, depressional, complex, 0 to 2 percent slopes	NHEL	5	.28	86	1	100	0.13
B33A	McQuade-Fayal, depressional, complex, 0 to 2 percent slopes	NHEL	5	.28	86	1	100	0.13
B34B	Majestic-Hibbing complex, 2 to 8 percent slopes	NHEL	3	.32	48	5	80	0.48
B35E	Hibbing-Udorthents complex, 18 to 45 percent slopes	HEL	2	.17	0	25	80	7.00
B36B	Lavell-Shawano complex, 1 to 6 percent slopes	NHEL	5	.15	134	3	80	0.27
B37B	Westoo-Lavell complex, 0 to 6 percent slopes	NHEL	5	.17	134	2	80	0.19
B39A	Meehan loamy sand, 0 to 3 percent slopes	NHEL	5	.17	134	1	80	0.12
B40D	Shawano loamy fine sand, 6 to 18 percent slopes	PHEL	5	.15	134	12	80	1.60
B41B	Friendship loamy sand, 0 to 4 percent slopes	NHEL	5	.17	134	2	80	0.19
B45A	Dora muck, depressional (Taylor catena), 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
B46A	Dora mucky peat (Taylor catena), 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08

Highly Erodible Soil Map Unit List - ST. LOUIS COUNTY - VIRGINIA PART, MN

C=.09

R=90

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

musym	muname	HEL	T	K	I	slope_%	slope_l	LS
B47A	Daisybay peat, 0 to 1 percent slopes	NHEL	5	0	38	0.2	80	0.08
B48A	Mooseline-Turpela complex, 0 to 3 percent slopes	NHEL	4	.15	134	1	80	0.12
B52A	Dora muck, depressionnal (Hibbing catena), 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
B53A	Dora mucky peat (Hibbing catena), 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
B54A	Spooner-Littleswan complex, 0 to 2 percent slopes	NHEL	5	.37	56	1	100	0.13
B56A	Sax, frequently ponded-Spooner complex, 0 to 1 percent slopes	NHEL	5	.37	56	1	100	0.13
B57A	Littleswan silt loam, 0 to 3 percent slopes	NHEL						
B57B	Baudette-Littleswan complex, 0 to 6 percent slopes	NHEL	5	.37	48	4	100	0.42
B58B	Wurtsmith-Meehan complex, 0 to 4 percent slopes	NHEL	5	.17	134	2	80	0.19
B61A	Cathro, depressionnal-Barber complex, 0 to 3 percent slopes	NHEL	5	.17	134	1	80	0.12
B62A	Wabuse-Vasso complex, 0 to 3 percent slopes	NHEL	5	.17	134	1	80	0.12
B63B	Urban land-McQuade-Buhl complex, 0 to 12 percent slopes	NHEL	3	.32	48	2	80	0.19
B64B	Vasso-Keenan complex, 1 to 6 percent slopes	NHEL	5	.17	134	3	80	0.27
B65A	Merwin peat (Upham basin), 0 to 1 percent slopes	NHEL	5	0	38	0.2	80	0.08
B66C	Entisols, channeled, 0 to 20 percent slopes, rarely to frequently flooded	NHEL	5	.15	250	2	80	0.19
B67A	Rifle soils (Hibbing catena), 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
B68A	Roscommon, depressionnal-Roscommon complex, 0 to 1 percent slopes	NHEL	5	.17	134	0.5	80	0.09
B72A	Barber-Wabuse complex, 0 to 3 percent slopes	NHEL	5	.17	134	1	80	0.12
B73A	Spooner-Buhl-Littleswan complex, 0 to 3 percent slopes	NHEL	5	.28	86	1	80	0.12
B74A	Kapla, depressionnal-Wabuse complex, 0 to 2 percent slopes	NHEL	5	.17	134	1	80	0.12
B82A	Greenwood soils (Taylor catena), 0 to 1 percent slopes	NHEL	5	0	38	0.2	80	0.08
B83A	Rifle-Tacoosh complex, depressionnal, 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
B84B	Eutrudepts, occasionally flooded-Greaney, frequently flooded, complex, 0 to 4 percent slopes	NHEL	5	.32	56	1	80	0.12
B99A	Cathro-Sago complex, depressionnal, 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
B100A	Greenwood-Merwin complex, depressionnal, 0 to 1 percent slopes	NHEL	5	0	38	0.2	80	0.08
B108A	Cathro muck, depressionnal (Upham basin), 0 to 1 percent sloes	NHEL	5	0	134	0.2	80	0.08
B119A	Tacoosh mucky peat (Upham basin), 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
B147A	Rifle soils (Upham basin), 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
B152A	Greenwood soils (Hibbing catena), 0 to 1 percent slopes	NHEL	5	0	38	0.2	80	0.08
F1C	Eaglesnest stony loam, 4 to 12 percent slopes, very bouldery	PHEL	4	.17	0	12	100	1.80
F2B	Eaglesnest-Wahlsten complex, 2 to 8 percent slopes, bouldery	NHEL	2	.17	0	5	80	0.48
F3D	Eveleth-Eaglesnest-Conic complex, 6 to 18 percent slopes, bouldery	PHEL	4	.17	0	12	80	1.80
F4E	Eveleth-Conic, bouldery-Rock outcrop complex, 18 to 30 percent slopes	HEL	2	.17	0	25	80	7.00
F5B	Babbitt, bouldery-Wahlsten, bouldery-Aquepts, rubbly, complex, 0 to 8 percent slopes, rocky	NHEL	2	.17	0	5	80	0.48
F6B	Soudan-Eaglesnest-Babbitt complex, 1 to 8 percent slopes, bouldery	NHEL	4	.17	86	5	100	0.54
F7B	Biwabik-Graycalm complex, 1 to 8 percent slopes	NHEL	2	.20	0	5	80	0.48

Highly Erodible Soil Map Unit List - ST. LOUIS COUNTY - VIRGINIA PART, MN

C=.09

R=90

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

musym	muname	HELC	T	K	I	slope_%	slope_l	LS
F8D	Biwabik-Graycalm-Friendship complex, pitted, 0 to 18 percent slopes	PHEL	2	.10	0	12	80	1.60
F9A	Cloquet loam, 0 to 2 percent slopes	NHEL	2	.10	0	1	80	0.12
F9B	Cloquet loam, 2 to 8 percent slopes	NHEL	2	.10	0	5	80	0.48
F10D	Cloquet-Pequaywan complex, pitted, 0 to 18 percent slopes	PHEL	2	.10	0	12	80	1.60
F10E	Cloquet-Pequaywan complex, pitted, 0 to 45 percent slopes	HEL	2	.10	0	30	80	7.00
F11B	Eaglesnest stony loam, 2 to 8 percent slopes, bouldery	NHEL	3	.28	86	5	80	0.48
F12B	Eaglesnest-Babbitt complex, 1 to 8 percent slopes, bouldery	NHEL	3	.28	86	5	80	0.48
F13A	Babbitt, bouldery-Aquepts, rubbly, complex, 0 to 3 percent slopes	NHEL	3	.28	86	1	80	0.12
F14D	Eveleth stony loam, 8 to 18 percent slopes, bouldery	PHEL	4	.17	0	12	100	1.80
F15E	Rollins cobbly sandy loam, 18 to 35 percent slopes, stony	HEL	2	.10	0	30	80	7.00
F16B	Shawano loamy fine sand, 1 to 8 percent slopes	NHEL	5	.15	134	5	80	0.48
F17A	Aquepts, 0 to 2 percent slopes, rubbly	NHEL	5	.17	134	1	80	0.12
F18A	Babbitt stony loam, 0 to 3 percent slopes, bouldery	NHEL	3	.28	86	1	80	0.12
F19A	Pequaywan loam, 0 to 3 percent slopes	NHEL	5	.17	134	2	80	0.19
F21C	Quetico, bouldery-Insula, bouldery-Rock outcrop complex, 3 to 18 percent slopes	PHEL	1	.24		10	80	1.20
F21D	Quetico, stony-Rock outcrop complex, 15 to 35 percent slopes	HEL	1	.24	0	30	80	7.00
F21F	Quetico, stony-Rock outcrop complex, 35 to 60 percent slopes	HEL	1	.24	0	30	80	7.00
F22F	Eveleth-Conic complex, 20 to 50 percent slopes, very bouldery	HEL	2	.17	0	25	80	7.00
F23B	Rollins-Biwabik complex, 1 to 8 percent slopes	NHEL	2	.10	0	5	80	0.48
F23D	Rollins-Biwabik complex, 8 to 18 percent slopes	PHEL	2	.10	0	12	80	1.60
F24A	Gnesen fine sandy loam, 0 to 3 percent slopes	NHEL	4	.24	86	1	80	0.12
F25D	Rollins-Cloquet complex, 8 to 18 percent slopes	PHEL	2	.10	0	12	80	1.60
F26C	Shagawa-Beargrease complex, 2 to 15 percent slopes, extremely bouldery	PHEL	2	.10	0	12	80	1.60
F26E	Shagawa-Beargrease complex, 8 to 30 percent slopes, extremely bouldery	PHEL	2	.10	0	12	80	1.60
F26G	Shagawa-Beargrease complex, 35 to 60 percent slopes, extremely bouldery	HEL						
F28B	Oysterlake complex, 0 to 4 percent slopes	NHEL	4	.24	86	2	80	0.19
F29E	Shagawa, extremely stony-Beargrease, extremely stony-Tacoosh complex, 0 to 35 percent slopes	PHEL	2	.10	0	12	80	1.60
F29G	Shagawa, extremely stony-Beargrease, extremely stony-Tacoosh complex, 0 to 60 percent slopes	HEL	2	.10	0	30	80	7.00
F30G	Conic, very bouldery-Insula, very bouldery-Rock outcrop complex, 20 to 70 percent slopes	HEL	2	.17	0	25	80	7.00
F31B	Oysterlake, extremely stony-Tacoosh complex, 0 to 4 percent slopes	NHEL	4	.24	86	2	80	0.19
F34A	Cathro muck, depressional, 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
F35D	Eveleth, bouldery-Conic, bouldery-Aquepts, rubbly, complex, 0 to 18 percent slopes	PHEL	4	.17	0	12	100	1.80
F36D	Conic, bouldery-Insula, bouldery-Rock outcrop complex, 8 to 25 percent slopes	PHEL	2	.17	0	10	80	1.20
F37B	Foglake-Babbitt, bouldery, complex, 0 to 4 percent slopes	NHEL	3	.28	86	1	80	0.12
F38B	Longsiding-Eaglesnest, bouldery, complex, 0 to 8 percent slopes	NHEL	3	.28	86	5	80	0.48
F39A	Foglake-Aquepts, rubbly-Hassman, depressional, complex, 0 to 2 percent slopes	NHEL	5	.28	86	1	100	0.13

Highly Erodible Soil Map Unit List - **ST. LOUIS COUNTY - VIRGINIA PART, MN**

C=.09

R=90

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

musym	muname	HEL	T	K	I	slope_%	slope_l	LS
F40B	Rollins cobbly sandy loam, 2 to 8 percent slopes	NHEL	2	.10	0	5	80	0.48
F40D	Rollins cobbly sandy loam, 8 to 18 percent slopes	PHEL	2	.10	0	12	80	1.60
F41B	Wurtsmith-Friendship complex, MLRA 93, 1 to 4 percent slopes	NHEL	5	.17	134	2	80	0.19
F42A	Meehan sandy loam, 0 to 2 percent slopes	NHEL	5	.17	134	1	80	0.12
F43A	Roscommon muck, depressional, MLRA 93, 0 to 1 percent slopes	NHEL	5	0	134	0.5	80	0.09
F116A	Mooselake mucky peat, 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
F129A	Tacoosh mucky peat, 0 to 1 percent slopes	NHEL	5	0	134	0.2	80	0.08
F164B	Beargrease-Biwabik-Rollins complex, 2 to 8 percent slopes	NHEL	2	.20	0	5	80	0.48
F164E	Beargrease-Biwabik-Rollins complex, 8 to 35 percent slopes	PHEL	2	.10	0	12	80	1.60
F165C	Insula, very bouldery-Rock outcrop-Wahlsten, very bouldery, complex, 2 to 12 percent slopes	PHEL	1	.24		10	80	1.20
F166A	Aquepts, rubbly-Tacoosh-Rifle complex, 0 to 2 percent slopes	NHEL						
F176A	Sago muck, depressional, 0 to 1 percent slopes	NHEL	5	0	134	0.5	80	0.09
GP	Pits, gravel-Udipsamments complex	NHEL						
M-W	Water, miscellaneous	NHEL						