HIGHLY ERODIBLE LAND CLASSIFICATION

for

WASCO COUNTY, NORTHERN PART

The following is documentation for placing Potentially Highly Erodible (PHEL=2) mapping units into Highly Erodible Land (HEL=1) or Non-Highly Erodible Land (NHEL=3) classes.

The map units were placed in the PHEL classification using data from the HEL list of March 3, 1987. Criteria used for placement was: LS minimum <8T/RK and LS maximum ≥8T/RK. For each PHEL map unit the formula EI=RKLS/T (average LS) was used to calculate the Erodibility Index (EI). When the EI>8 the map unit was considered HEL(1), and when the EI<8 the map unit was considered NHEL (3). Any exceptions are noted and are based on professional judgement, field observaton and experience.

EXCEPTIONS:

2D - Bakeoven: Most map uhits associated with cropland are less than 10%.
3D - Bakeoven: Most map units associated with cropland are less than 10%.
5C - Watama soils are generally on the steeper portions of the map unit.
12D- Professional judgement and field experience determined typical slopes and slopes lengths exceed the average.
14B- Professional judgement and field experience determined typical slopes and slope lengths are less than the average.
17B- Professional judgement and field experience determined typical slopes and slope lengths are less than the average.
20B- Professional judgement and field experience determined typical slopes and slope lengths are less than the average.
40E- Professional judgement and field experience determined typical slopes and slope lengths are less than the average.
46D- Professional judgement and field experience determined typical slopes and slopes lengths exceed the average.
47D- Professional judgement and field experience determined typical slopes and slopes lengths exceed the average.
53E- Professional judgement and field experience determined typical slopes and slope lengths are less than the average.
54C- Professional judgement and field experience determined typical slopes and slopes lengths exceed the average.

- HIGHLY ERODIBLE LAND CLASSES WASCO COUNTY, OREGON NORTHERN PART
1 = HIGHLY ERODIBLE LAND 673 MARCH 12,1987
2 = POTENTIALLY HIGHLY ERODIBLE
3 = NOT HIGHLY ERODIBLE

NOTE: 2 IS SHOULD BE ON TG LIST.

MAP SYMBOL	SOIL NAME	*	%	WIND EROSION C VALUE	I VALUE	HEL CLASS	R VALUE	K VALUE	T VALUE	WATER EROSION SLOPE-PERCEN MIN.	MAX.	SLOPE--LENGTH MIN.	MAX.	LS-VALUE MIN.	MAX.	ST/RK	HEL CLASS
1C	ANDERLY	1	100	0.30	56	1	25	0.49	2	7	12	400	600	1.97	3.50	1.31	1
1D	ANDERLY	1	100	0.30	56	1	25	0.49	2	12	20	400	550	2.85	4.71	1.31	1
1E	ANDERLY	1	100	0.30	56	1	25	0.49	2	20	35	250	450	3.18	6.03	1.31	1
2D	BAKEOVEN	1	100	0.25	0	3	25	0.15	1	2	20	400	550	0.82	4.71	2.13	~~2~~3
3D	BAKEOVEN	1	65	0.25	0	3	25	0.15	1	2	20	400	550	0.82	4.71	2.13	~~2~~3
3D	CONDON	2	20	0.25	56	3	25	0.43	2	2	20	400	550	0.82	4.71	1.49	~~2~~1
4C	BAKEOVEN	1	65	0.25	0	3	25	0.15	1	0	12	400	600	0.00	3.50	2.13	~~2~~3
4C	MAUPIN	2	20	0.25	48	3	25	0.37	2	0	12	400	600	0.00	3.50	1.73	~~2~~1
5C	BAKEOVEN	1	65	0.25	0	3	25	0.15	1	0	12	400	600	0.00	3.50	2.13	~~2~~3
5C	WATAMA	2	20	0.25	56	3	25	0.28	2	0	12	400	600	0.00	3.50	2.29	~~2~~1
6E*	BALD	1	100	0.20	0	3	45	0.24	2	5	45	400	450	1.56	6.90	1.48	1
7F*	BALD	1	100	0.20	0	3	45	0.15	2	45	75	100	300	3.25	6.88	2.37	1
8F*	BALD VARIANT	1	100	0.20	0	3	45	0.20	5	45	75	100	300	3.25	6.88	4.44	~~2~~1
9E*	BINDLE	1	55	0.10	48	3	55	0.20	3	1	30	400	500	0.51	5.80	2.18	~~2~~1
9F*	BINDLE	1	55	0.10	48	3	55	0.20	3	30	70	200	300	3.67	6.75	2.18	1
9E*	BINS	2	30	0.10	48	3	55	0.28	3	1	30	400	500	0.51	5.80	1.56	~~2~~1,
9F*	BINS	2	30	0.10	48	3	55	0.28	3	30	70	200	300	3.67	6.75	1.56	1
10E*	BODELL	1	100	0.20	48	1	45	0.17	1	5	45	400	300	1.56	5.63	1.05	1
11F*	BODELL	1	100	0.20	0	3	45	0.17	1	45	75	100	300	3.25	6.88	1.05	1
12B	CANTALA	1	100	0.25	56	3	25	0.43	5	1	7	400	800	0.51	2.78	3.72	3
12C	CANTALA	1	100	0.25	56	3	25	0.43	5	7	12	400	600	1.97	3.50	3.72	3
12D	CANTALA	1	100	0.25	56	3	25	0.43	5	12	20	250	550	2.26	4.71	3.72	~~2~~1
12E	CANTALA	1	100	0.25	56	3	25	0.43	5	20	35	250	450	3.18	6.03	3.72	~~2~~1
13B	CHENOWETH	1	100	0.20	56	3	45	0.49	5	1	7	400	800	0.51	2.78	1.81	~~2~~3
13C	CHENOWETH	1	100	0.20	56	3	45	0.49	5	7	12	400	600	1.97	3.50	1.81	1
13D	CHENOWETH	1	100	0.20	56	3	45	0.49	5	12	20	250	550	2.26	4.71	1.81	1
13E	CHENOWETH	1	100	0.20	56	3	45	0.49	5	20	35	250	450	3.18	6.03	1.81	1
14B	CHERRYHILL	1	100	0.20	48	3	45	0.43	3	1	7	400	800	0.51	2.78	1.24	~~2~~3
14C	CHERRYHILL	1	100	0.20	48	3	45	0.43	3	7	12	400	600	1.97	3.50	1.24	1
14D	CHERRYHILL	1	100	0.20	48	3	45	0.43	3	12	20	250	550	2.26	4.71	1.24	1
14E	CHERRYHILL	1	100	0.20	48	3	45	0.43	3	20	35	250	450	3.18	6.03	1.24	1
14F	CHERRYHILL	1	100	0.20	48	3	45	0.43	3	35	50	200	300	4.02	5.92	1.24	1
15F	CHERRYHILL	1	100	0.20	48	3	45	0.43	3	35	50	200	300	4.02	5.92	1.24	1
16D	CHERRYHILL	1	65	0.20	48	3	45	0.43	3	3	25	400	500	1.09	5.19	1.24	~~2~~1
16D	ROCK OUTCROP	2	20	0.20	0	3	45	0.02	1	3	25	400	500	1.09	5.19	8.89	3
17B	CONDON	1	100	0.25	56	3	25	0.43	2	1	7	400	900	0.51	2.95	1.49	~~2~~3
17C	CONDON	1	100	0.25	56	3	25	0.43	2	7	12	400	600	1.97	3.50	1.49	1
17D	CONDON	1	100	0.25	56	3	25	0.43	2	12	25	250	500	2.26	5.19	1.49	1
18D	CONDON	1	65	0.25	56	3	25	0.43	2	2	20	400	550	0.82	4.71	1.49	~~2~~1
18D	BAKEOVEN	2	20	0.25	0	3	25	0.15	1	2	20	400	550	0.82	4.71	2.13	~~2~~1
19A*	CUMULIC HAPLAQUOLL	1	100	0.25	56	3	25	0.43	5	0	3	400	900	0.00	1.64	3.72	3
20B	DUART	1	100	0.25	56	3	25	0.43	2	1	7	400	800	0.51	2.78	1.49	~~2~~3
20C	DUART	1	100	0.25	56	3	25	0.43	2	7	12	400	600	1.97	3.50	1.49	1
20D	DUART	1	100	0.25	56	3	25	0.43	2	12	25	250	500	2.26	5.19	1.49	1
20E	DUART	1	100	0.25	56	3	25	0.43	2	25	40	250	450	3.67	6.49	1.49	1
21E*	DUART	1	60	0.25	56	3	25	0.43	2	20	55	250	300	3.18	6.18	1.49	1
22B	DUFUR	1	100	0.25	56	3	25	0.43	3	1	7	400	800	0.51	2.78	2.23	~~2~~3

The Dalles FO
MAY 1989

MAP SYMBOL	SOIL NAME	*	%	C VALUE	I VALUE	HEL CLASS	R VALUE	K VALUE	T VALUE	SLOPE- PERCEN MIN.	SLOPE- PERCEN MAX.	SLOPE--LENGTH MIN.	SLOPE--LENGTH MAX.	LS- VALUE MIN.	LS- VALUE MAX.	ST/RK	HEL CLASS
22C	DUFUR	1	100	0.25	56	3	25	0.43	3	7	12	400	600	1.97	3.50	2.23	~~2~~ 1
22D	DUFUR	1	100	0.25	56	3	25	0.43	3	12	35	250	500	2.26	5.19	2.23	1
22E	DUFUR	1	100	0.25	56	3	25	0.43	3	25	40	250	450	3.67	6.49	2.23	1
24	ENDERSBY	1	100	0.25	56	3	25	0.32	3	0	3	400	900	0.00	1.64	3.00	3
25E*	FRAILEY	1	100	0.20	48	3	45	0.32	5	3	30	400	500	1.09	5.80	2.78	~~2~~ 1
25F*	FRAILEY	1	100	0.20	48	3	45	0.32	5	30	70	200	300	3.67	6.75	2.78	1
26	HERMISTON	1	100	~~.25~~ 0.20	56	+3	25	0.37	5	0	3	400	900	0.00	1.64	4.32	3
27F	HESSLAN	1	60	0.20	48	3	45	0.28	2	30	70	200	300	3.67	6.75	1.27	1
27F	HESSLAN	2	20	0.20	56	3	45	0.28	2	30	70	200	300	3.67	6.75	1.27	1
28E*	HESSLAN	1	45	0.20	48	3	45	0.28	2	5	40	400	450	1.56	6.49	1.27	1
28E*	SKYLINE	2	35	0.20	0	3	45	0.10	1	5	40	400	450	1.56	6.49	1.78	~~2~~ 1
29E*	KETCHLY	1	100	0.10	48	3	55	0.32	4	3	30	400	500	1.09	5.80	1.82	~~2~~ 1
29F*	KETCHLY	1	100	0.10	48	3	55	0.32	4	30	65	200	300	3.67	6.58	1.82	1
30E*	LICKSKILLET	1	100	0.25	0	3	25	0.20	1	15	40	250	450	2.63	6.49	1.60	1
31F*	LICKSKILLET	1	100	0.25	0	3	25	0.15	1	40	70	200	300	4.33	6.75	2.13	1
32A	MAUPIN	1	100	0.25	48	3	25	0.37	2	0	5	400	900	0.00	2.34	1.73	~~2~~ 3
32B	MAUPIN	1	100	0.25	48	3	25	0.37	2	5	12	400	600	1.56	3.50	1.73	~~2~~ 1
33	MAUPIN VARIANT	1	100	0.25	48	3	25	0.37	4	0	3	400	900	0.00	1.64	3.46	3
34F*	NANSENE	1	100	0.30	56	3	25	0.43	3	35	70	200	300	4.02	6.75	2.23	1
35	PEDIGO	1	100	0.30	86	3	25	0.37	5	0	3	400	900	0.00	1.64	4.32	3
36	QUINCY VARIANT	1	100	0.30	134	1	25	0.20	5	0	3	400	900	0.00	1.64	8.00	3
38*	ROCK OUTCROP	1	50	0.30	0	3	25	0.02	1	30	100	200	300	3.67	7.26	16.00	3
39*	ROCK OUTCROP	1	60	0.30	0	3	25	0.02	1	0	30	400	500	0.00	5.80	16.00	3
39*	XEROPSAMMENTS	2	40	0.30	134	1	25	0.24	5	0	30	400	500	0.00	5.80	6.67	3
40E*	SHERAR	1	100	0.25	38	3	25	0.20	2	5	45	400	450	1.56	6.90	3.20	~~2~~ 3
41F*	SHERAR	1	100	0.25	0	3	25	0.15	2	45	70	100	300	3.25	6.75	4.27	~~2~~ 1
42B	SINAMOX	1	100	0.25	48	3	25	0.49	3	1	7	400	800	0.51	2.78	1.96	~~2~~ 3
42C	SINAMOX	1	100	0.25	48	3	25	0.49	3	7	12	400	600	1.97	3.50	1.96	1
42D	SINAMOX	1	100	0.25	48	3	25	0.49	3	12	20	250	550	2.26	4.71	1.96	1
42E	SINAMOX	1	100	0.25	48	3	25	0.49	3	20	45	250	450	3.18	6.90	1.96	1
42F	SINAMOX	1	100	0.25	48	3	25	0.49	3	45	70	100	300	3.25	6.75	1.96	1
43F*	SKYLINE	1	60	0.20	0	3	25	0.10	1	40	65	200	300	4.33	6.58	3.20	1
43F*	HESSLAN	2	20	0.20	48	3	25	0.28	2	40	65	200	300	4.33	6.58	2.29	1
44	TYGH	1	100	0.20	86	3	25	0.20	3	0	3	400	900	0.00	1.64	4.80	3
45B	VAN HORN	1	100	0.20	56	3	25	0.24	5	0	8	400	800	0.00	3.05	6.67	3
45C	VAN HORN	1	100	0.20	56	3	25	0.24	5	8	12	400	600	2.16	3.50	6.67	3
45D	VAN HORN	1	100	0.20	56	3	25	0.24	5	12	20	250	550	2.26	4.71	6.67	3
45E	VAN HORN	1	100	0.20	56	3	25	0.24	5	20	35	250	450	3.18	6.03	6.67	3
46B	WALLA WALLA	1	100	0.30	56	3	25	0.43	5	3	7	400	800	1.09	2.78	3.72	3
46C	WALLA WALLA	1	100	0.30	56	3	25	0.43	5	7	12	400	600	1.97	3.50	3.72	3
46D	WALLA WALLA	1	100	0.30	56	3	25	0.43	5	12	20	250	550	2.26	4.71	3.72	~~2~~ 1
47D	WALLA WALLA	1	100	0.30	56	3	25	0.43	5	12	20	250	550	2.26	4.71	3.72	~~2~~ 1
47E	WALLA WALLA	1	100	0.30	56	3	25	0.43	5	20	35	250	450	3.18	6.03	3.72	~~2~~ 1
48E	WALLA WALLA	1	100	0.30	56	3	25	0.43	5	20	35	250	450	3.18	6.03	3.72	~~2~~ 1
48F	WALLA WALLA	1	100	0.30	56	3	25	0.43	5	35	50	200	300	4.02	5.92	3.72	1
49B	WAMIC	1	100	0.20	56	3	45	0.49	4	1	5	400	900	0.51	2.34	1.45	~~2~~ 3
49C	WAMIC	1	100	0.20	56	3	45	0.49	4	5	12	400	600	1.56	3.50	1.45	1
50C	WAMIC	1	100	0.20	56	3	45	0.49	4	5	12	400	600	1.56	3.50	1.45	1
50D	WAMIC	1	100	0.20	56	3	45	0.49	4	12	20	250	550	2.26	4.71	1.45	1
50E	WAMIC	1	100	0.20	56	3	45	0.49	4	20	40	250	450	3.18	6.49	1.45	1
50F*	WAMIC	1	100	0.20	56	3	45	0.49	4	40	70	200	300	4.33	6.75	1.45	1
51D*	WAMIC	1	60	0.20	56	3	45	0.49	4	2	20	400	550	0.82	4.71	1.45	~~2~~ 1
51D*	SKYLINE	2	20	0.20	0	3	45	0.10	1	5	20	400	550	1.56	4.71	1.78	~~2~~ 1
52B	WAPINITIA VARIANT	1	100	0.25	48	3	25	0.37	3	1	7	400	800	0.51	2.78	2.59	~~2~~ 3

Approved 5/20/89 TPT

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MAP SYMBOL	SOIL NAME		%	C VALUE	I VALUE	HEL CLASS	R VALUE	K VALUE	T VALUE	SLOPE- MIN.	PERCEN MAX.	SLOPE--LENGTH MIN.	MAX.	LS- MIN.	VALUE MAX.	ST/RK	HEL CLASS
******	**********	*	***	*****	******	*****	******	******	*****	******	*****	******	******	*****	*****	*****	****
53E*	WARDEN	1	100	0.30	56	3	25	0.43	5	5	40	400	450	1.56	6.49	3.72	23
54B	WATAMA	1	60	0.25	56	3	25	0.28	2	0	5	400	900	0.00	2.34	2.29	23
54C	WATAMA	1	60	0.25	56	3	25	0.28	2	5	12	400	600	1.56	3.50	2.29	21
54D	WATAMA	1	60	0.25	56	3	25	0.28	2	12	20	250	550	2.26	4.71	2.29	21
54E	WATAMA	1	60	0.25	56	3	25	0.28	2	20	35	250	450	3.18	6.03	2.29	1
54B	WAPINITIA	2	25	0.25	48	3	25	0.37	3	0	5	400	900	0.00	2.34	2.59	3
54C	WAPINITIA	2	25	0.25	48	3	25	0.37	3	5	12	400	600	1.56	3.50	2.59	21
54D	WAPINITIA	2	25	0.25	48	3	25	0.37	3	12	20	250	550	2.26	4.71	2.59	21
54E	WAPINITIA	2	25	0.25	48	3	25	0.37	3	20	35	250	450	3.18	6.03	2.59	1
55B	WATO	1	100	0.40	86	1	25	0.49	3	3	7	400	800	1.09	2.78	1.96	23
55C	WATO	1	100	0.40	86	1	25	0.49	3	7	12	400	600	1.97	3.50	1.96	1
55D	WATO	1	100	0.40	86	1	25	0.49	3	12	20	250	550	2.26	4.71	1.96	1
55E	WATO	1	100	0.40	86	1	25	0.49	3	20	35	250	450	3.18	6.03	1.96	1
56B	WIND RIVER	1	100	0.25	86	3	45	0.15	5	0	8	400	800	0.00	3.05	5.93	3
56C	WIND RIVER	1	100	0.25	86	3	45	0.15	5	8	12	400	600	2.16	3.50	5.93	3
56D	WIND RIVER	1	100	0.25	86	3	45	0.15	5	12	30	250	500	2.26	5.80	5.93	3
57F*	WRENTHAM	1	65	0.25	48	3	25	0.37	2	35	70	200	300	4.02	6.75	1.73	1

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