

APPENDIX E.6.1
SOILS CHARACTERISTICS

Table
Characteristics of Enloe Soils

Map Symbol	Map Unit Name	Selected Physical Properties											Selected Chemical Properties				Selected Soil Features							
		Depth <i>in</i>	Clay <i>pct</i>	Moist Bulk Density <i>g/cc</i>	Saturated Hydraulic Conductivity <i>micro m/sec</i>	Available Water Capacity <i>in/in</i>	Linear Extensibility <i>pct</i>	Organic Matter <i>pct</i>	RUSLE Erosion Factors ¹			Wind Erodibility Group ²	Wind Erodibility Index ³	Cation exchange capacity <i>meq/100 g</i>	Soil reaction <i>pH</i>	CaCO ₃ <i>pct</i>	Salinity <i>mmhos/cm</i>	Hydric Soils		Restrictive Layer		Frost Free Days <i>days</i>	Hydrological Group ⁴	Farmland Classification
							<i>Kw</i>	<i>Kf</i>	<i>T</i>								<i>pct</i>	<i>location</i>	<i>depth (in)</i>	<i>type</i>				
4	Badland	0 - 60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	D	--	
26	Concally gravelly sandy loam, 8 to 25 percent slopes	0 - 13 13 - 33 33 - 60	3 - 8 3 - 10 3 - 10	1.10 - 1.50 1.70 - 1.85 1.70 - 1.85	14 - 42 14 - 42 14 - 42	0.07 - 0.10 0.07 - 0.13 0.08 - 0.12	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.15 .24 .15	.37 .37 .37	5	3	86	0.0 1.0 - 3.0 1.0 - 3.0	6.6 - 7.3 6.6 - 7.3 6.6 - 7.3	0 0 0	0 0 0	nm	nm	>60	roots	130	B	--
53	Ewall loamy fine sand, 0 to 15 percent slopes	0 - 15 15 - 26 26 - 60	5 - 10 0 - 5 0 - 5	1.25 - 1.45 1.45 - 1.60 1.45 - 1.60	42 - 141 141 - 705 141 - 705	0.08 - 0.11 0.05 - 0.07 0.04 - 0.07	0 - 2.9 0 - 2.9 0 - 2.9	0.5 - 1.0 0 - 0.5 0 - 0.5	.28 .10 .10	.28 .10 .24	5	2	134	1.0 - 3.0 1.0 - 2.0 1.0 - 2.0	6.6 - 7.3 6.6 - 7.3 6.6 - 7.3	0 0 0	0 0 0	nm	nm	>60	roots	145	A	Farmland of statewide importance
93	Lithic Xerochrepts-Nighthawk complex, 15 to 45 percent slopes	0 - 8 8 - 22 22 - 60	10 - 20 10 - 20 10 - 15	1.15 - 1.35 1.30 - 1.45 1.35 - 1.50	4 - 14 4 - 14 4 - 14	0.08 - 0.11 0.10 - 0.13 0.07 - 0.10	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0.5 - 1.0 0 - 0.5	.10 .15 .10	.32 .37 .37	5	8	0	10 - 20 10 - 20 10 - 15	6.6 - 7.3 7.4 - 7.8 7.4 - 9.0	0 0 0 - 30	0 0 - 2.0 0 - 4.0	nm	nm	>60	roots	135	D	--
95	Lithic Xerochrepts-Vallan complex, 15 to 45 percent slopes	0 - 4 4 - 15	18 - 25 20 - 30	1.15 - 1.35 1.25 - 1.40	4 - 14 4 - 14	0.12 - 0.15 0.15 - 0.19	0 - 2.9 3.0 - 5.9	1.0 - 3.0 0 - 0.5	.24 .24	.28 .28	1	6	48	15 - 25 10 - 20	6.1 - 7.3 6.1 - 7.3	0 0	0 0	nm	nm	6 - 20	roots, lithic	135	D	--
122	Newbon loam, 3 to 8 percent slopes	0 - 13 13 - 25 25 - 60	10 - 18 10 - 18 7 - 15	1.15 - 1.30 1.65 - 1.80 1.65 - 1.80	14 - 42 1.4 - 4 4 - 14	0.16 - 0.18 0.13 - 0.16 0.10 - 0.14	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.43 .20 .20	.43 .43 .43	3	5	56	5.0 - 15 5.0 - 15 3.0 - 10	6.6 - 7.3 6.6 - 7.3 6.6 - 7.3	0 0 0	0 0 0	nm	nm	>60	roots	140	B	Farmland of statewide importance
124	Newbon loam, 15 to 25 percent slopes	0 - 13 13 - 25 25 - 60	10 - 18 10 - 18 7 - 15	1.15 - 1.30 1.65 - 1.80 1.65 - 1.80	14 - 42 1.4 - 4 4 - 14	0.16 - 0.18 0.13 - 0.16 0.10 - 0.14	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.43 .20 .20	.43 .43 .43	3	5	56	5.0 - 15 5.0 - 15 3.0 - 10	6.6 - 7.3 6.6 - 7.3 6.6 - 7.3	0 0 0	0 0 0	nm	nm	>60	roots	140	B	--
125	Newbon gravelly loam, 0 to 8 percent slopes	0 - 13 13 - 25 25 - 60	10 - 18 10 - 18 7 - 15	1.15 - 1.30 1.65 - 1.80 1.65 - 1.80	14 - 42 1.4 - 4 4 - 14	0.13 - 0.16 0.13 - 0.16 0.10 - 0.14	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.24 .20 .20	.37 .43 .43	3	6	48	5.0 - 15 5.0 - 15 3.0 - 10	6.6 - 7.3 6.6 - 7.3 6.6 - 7.3	0 0 0	0 0 0	nm	nm	>60	roots	140	B	--
130	Newbon extremely stony loam, 0 to 45 percent slopes	0 - 13 13 - 25 25 - 60	10 - 18 10 - 18 7 - 15	1.15 - 1.30 1.65 - 1.80 1.65 - 1.80	14 - 42 1.4 - 4 4 - 14	0.11 - 0.14 0.13 - 0.16 0.10 - 0.14	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.15 .20 .20	.37 .43 .43	3	8	0	5.0 - 10 5.0 - 10 3.0 - 7.0	6.6 - 7.3 6.6 - 7.3 6.6 - 7.3	0 0 0	0 0 0	nm	nm	>60	roots	140	B	--
131	Nighthawk loam, 3 to 8 percent slopes	0 - 8 8 - 13 13 - 60	10 - 20 10 - 20 10 - 15	1.15 - 1.35 1.30 - 1.45 1.35 - 1.50	4 - 14 4 - 14 4 - 14	0.16 - 0.19 0.10 - 0.13 0.07 - 0.10	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.32 .15 .10	.37 .37 .37	5	5	56	10 - 20 10 - 20 10 - 15	6.6 - 7.3 7.4 - 7.8 7.4 - 9.0	0 0 0 - 30	0 0 - 2.0 0 - 4.0	nm	nm	>60	roots	163	B	--
132	Nighthawk loam, 8 to 15 percent slopes	0 - 8 8 - 13 13 - 60	10 - 20 10 - 20 10 - 15	1.15 - 1.35 1.30 - 1.45 1.35 - 1.50	4 - 14 4 - 14 4 - 14	0.16 - 0.19 0.10 - 0.13 0.07 - 0.10	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.32 .15 .10	.37 .37 .37	5	5	56	10 - 20 10 - 20 10 - 15	6.6 - 7.3 7.4 - 7.8 7.4 - 9.0	0 0 0 - 30	0 0 - 2.0 0 - 4.0	nm	nm	>60	roots	163	B	Farmland of unique importance
133	Nighthawk loam, 15 to 25 percent slopes	0 - 8 8 - 13 13 - 60	10 - 20 10 - 20 10 - 15	1.15 - 1.35 1.30 - 1.45 1.35 - 1.50	4 - 14 4 - 14 4 - 14	0.16 - 0.19 0.10 - 0.13 0.07 - 0.10	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.32 .15 .10	.37 .37 .37	5	5	56	10 - 20 10 - 20 10 - 15	6.6 - 7.3 7.4 - 7.8 7.4 - 9.0	0 0 0 - 30	0 0 - 2.0 0 - 4.0	nm	nm	>60	roots	163	B	Farmland of unique importance

Source: USDA 2007, National Cooperative Soil Survey, Web Soil Survey 1.1

(1) RUSLE Erosion Factors:

- Kw* Susceptibility of whole soil to sheet and rill erosion by water. Range 0.02 - 0.69. Higher values indicate greater susceptibility.
- Kf* Susceptibility of fines to sheet and rill erosion by water. Range 0.02 - 0.69. Higher values indicate greater susceptibility.
- T* Estimated maximum average annual rate of soil erosion (tons/acre per year) by wind/water that can occur without affecting crop productivity over a sustained period

(2) Wind Erodibility Group: Goup 1 soils are most susceptible, group 8 soils are least susceptible to wind erosion.

(3) Wind Erodibility Index: Susceptibility to wind erosion; tons/acre per year that can be expected to be lost.

(4) Hydrologic Group:

- A High infiltration rate (low runoff potential) when thoroughly wet. High rate of water transmission
- B Moderate infiltration rate when thoroughly wet. Moderate rate of water transmission
- C Slow infiltration rate when thoroughly wet. Slow rate of water transmission.
- D Very slow infiltration rate when thoroughly wet. Very slow rate of water transmission.

(5) '-' indicates criteria not present in soil description, 'nm' indicates criteria not met

Table
Characteristics of Enloe Soils

Map Symbol	Map Unit Name	Selected Physical Properties											Selected Chemical Properties				Selected Soil Features							
		Depth <i>in</i>	Clay <i>pct</i>	Moist Bulk Density <i>g/cc</i>	Saturated Hydraulic Conductivity <i>micro m/sec</i>	Available Water Capacity <i>in/in</i>	Linear Extensibility <i>pct</i>	Organic Matter <i>pct</i>	RUSLE Erosion Factors ¹			Wind Erodibility Group ²	Wind Erodibility Index ³	Cation exchange capacity <i>meq/100 g</i>	Soil reaction <i>pH</i>	CaCO ₃ <i>pct</i>	Salinity <i>mmhos/cm</i>	Hydric Soils		Restrictive Layer		Frost Free Days <i>days</i>	Hydrological Group ⁴	Farmland Classification
							<i>Kw</i>	<i>Kf</i>	<i>T</i>								<i>pct</i>	<i>location</i>	<i>depth (in)</i>	<i>type</i>				
134	Nighthawk extremely stony loam, 8 to 25 percent slopes	0 - 8 8 - 13 13 - 60	10 - 20 10 - 20 10 - 15	1.15 - 1.35 1.30 - 1.45 1.35 - 1.50	4 - 14 4 - 14 4 - 14	0.08 - 0.11 0.10 - 0.13 0.07 - 0.10	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0.5 - 1.0 0 - 0.5	.10 .15 .10	.32 .37 .37	5	8	0	10 - 20 10 - 20 10 - 15	6.6 - 7.3 7.4 - 7.8 7.4 - 9.0	0 0 0 - 30	0 0 - 2.0 0 - 4.0	nm	nm	>60	roots	163	B	Farmland of unique importance
135	Nighthawk extremely stony loam, 25 to 65 percent slopes	0 - 8 8 - 13 13 - 60	10 - 20 10 - 20 10 - 15	1.15 - 1.35 1.30 - 1.45 1.35 - 1.50	4 - 14 4 - 14 4 - 14	0.08 - 0.11 0.10 - 0.13 0.07 - 0.10	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0.5 - 1.0 0 - 0.5	.10 .15 .10	.32 .37 .37	5	8	0	10 - 20 10 - 20 10 - 15	6.6 - 7.3 7.4 - 7.8 7.4 - 9.0	0 0 0 - 30	0 0 - 2.0 0 - 4.0	nm	nm	>60	roots	163	B	--
136	Nighthawk extremely stony loam, 25 to 65 percent slopes, eroded	0 - 4 4 - 13 13 - 60	10 - 20 10 - 20 10 - 15	1.15 - 1.35 1.30 - 1.45 1.35 - 1.50	4 - 14 4 - 14 4 - 14	0.08 - 0.11 0.10 - 0.13 0.07 - 0.10	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0.5 - 1.0 0 - 0.5	.10 .15 .10	.32 .37 .37	5	8	0	10 - 20 10 - 20 10 - 15	6.6 - 7.3 7.4 - 7.8 7.4 - 9.0	0 0 0 - 30	0 0 - 2.0 0 - 4.0	nm	nm	>60	roots	163	B	--
145	Pogue fine sandy loam, 0 to 3 percent slopes	0 - 12 12 - 29 29 - 60	5 - 10 5 - 10 0 - 5	1.20 - 1.40 1.35 - 1.55 1.50 - 1.65	14 - 42 14 - 42 141 - 705	0.11 - 0.15 0.10 - 0.13 0.02 - 0.04	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.32 .17 .05	.32 .43 .24	3	3	86	2.0 - 5.0 1.0 - 3.0 1.0 - 2.0	6.6 - 7.3 6.6 - 7.3 6.6 - 7.3	0 0 0	0 0 0	nm	nm	>60	roots	160	B	Prime farmland if irrigated
151	Pogue extremely stony fine sandy loam, 0 to 25 percent slopes	0 - 12 12 - 29 29 - 60	5 - 10 5 - 10 0 - 5	1.20 - 1.40 1.35 - 1.55 1.50 - 1.65	14 - 42 14 - 42 141 - 705	0.12 - 0.14 0.10 - 0.14 0.02 - 0.04	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.15 .17 .05	.37 .43 .24	3	8	0	2.0 - 5.0 1.0 - 3.0 1.0 - 3.0	6.6 - 7.3 6.6 - 7.3 6.6 - 7.3	0 0 0	0 0 0	nm	nm	>60	roots	160	B	--
152	Pogue extremely stony fine sandy loam, 25 to 65 percent slopes	0 - 12 12 - 29 29 - 60	5 - 10 5 - 10 0 - 10	1.20 - 1.40 1.35 - 1.55 1.50 - 1.65	14 - 42 14 - 42 141 - 705	0.12 - 0.14 0.10 - 0.14 0.02 - 0.04	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 0 - 1.0 0 - 0.5	.15 .17 .05	.37 .43 .24	3	8	0	2.0 - 5.0 1.0 - 3.0 1.0 - 3.0	6.6 - 7.3 6.6 - 7.3 6.6 - 7.3	0 0 0	0 0 0	nm	nm	>60	roots	160	B	--
161	Riverwash	0 - 60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	D	--
162	Rock outcrop	0 - 60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	D	--
173	Tonasket silt loam, 0 to 3 percent slopes	0 - 8 8 - 28 28 - 60	10 - 15 10 - 15 10 - 15	1.10 - 1.35 1.30 - 1.45 1.40 - 1.65	4 - 14 4 - 14 1.4 - 4	0.16 - 0.19 0.14 - 0.17 0.19 - 0.21	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 1.0 - 2.0 0 - 1.0	.49 .49 .37	.49 .49 .37	5	5	56	8.0 - 12 5.0 - 10 4.0 - 8.0	6.6 - 7.8 6.6 - 7.8 7.9 - 9.0	0 0 1-15	0 0 0 - 4.0	nm	nm	>60	roots	163	B	Prime farmland if irrigated
174	Tonasket silt loam, 3 to 8 percent slopes	0 - 8 8 - 28 28 - 60	10 - 15 10 - 15 10 - 15	1.10 - 1.35 1.30 - 1.45 1.40 - 1.65	4 - 14 4 - 14 1.4 - 4	0.16 - 0.19 0.14 - 0.17 0.19 - 0.21	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 1.0 - 2.0 0 - 1.0	.49 .49 .37	.49 .49 .37	5	5	56	8.0 - 12 5.0 - 10 4.0 - 8.0	6.6 - 7.8 6.6 - 7.8 7.9 - 9.0	0 0 1-15	0 0 0 - 4.0	nm	nm	>60	roots	163	B	--
175	Tonasket silt loam, 8 to 15 percent slopes	0 - 8 8 - 28 28 - 60	10 - 15 10 - 15 10 - 15	1.10 - 1.35 1.30 - 1.45 1.40 - 1.65	4 - 14 4 - 14 1.4 - 4	0.16 - 0.19 0.14 - 0.17 0.19 - 0.21	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 1.0 - 2.0 0 - 1.0	.49 .49 .37	.49 .49 .37	5	5	56	8.0 - 12 5.0 - 10 4.0 - 8.0	6.6 - 7.8 6.6 - 7.8 7.9 - 9.0	0 0 1-15	0 0 0 - 4.0	nm	nm	>60	roots	163	B	--
177	Tonasket silt loam, 25 to 45 percent slopes	0 - 8 8 - 28 28 - 60	10 - 15 10 - 15 10 - 15	1.10 - 1.35 1.30 - 1.45 1.40 - 1.65	4 - 14 4 - 14 1.4 - 4	0.16 - 0.19 0.14 - 0.17 0.19 - 0.21	0 - 2.9 0 - 2.9 0 - 2.9	1.0 - 2.0 1.0 - 2.0 0 - 1.0	.49 .49 .37	.49 .49 .37	5	5	56	8.0 - 12 5.0 - 10 4.0 - 8.0	6.6 - 7.8 6.6 - 7.8 7.9 - 9.0	0 0 1-15	0 0 0 - 4.0	nm	nm	>60	roots	163	B	--

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