

APPENDIX D

SOIL TYPES

TABLE C-1: SOIL TYPES AND ASSOCIATED CHARACTERISTICS

Soil Series	Slopes (Percent)	Erosion Factor (a, b)	Permeability (in. per hr.) (a, c)	Shrink-Swell Potential (a, d)	Depth to Bedrock (in.)	Capability Classes and Subclasses (e)
Ben Lomond sandy loam (112)	50 - 75	0.17	2.0-6.0 (moderately rapid)	low	40-60	VIIe
Ben Lomond-Felton complex (115)	50 - 75	0.17	2.0-6.0 (moderately rapid)	low	40-72	VIIe
Santa Lucia shaly clay loam (169)	50 - 75	0.10 - 0.15	0.6-2.0 (slow)	low	20-40	VIIe
Santa Lucia shaly clay loam (168)	30 - 50	0.10 - 0.15	0.6-2.0 (moderate)	low	20-40	VIe
Diablo clay (126)	9 - 15	0.24	0.06-0.2 (slow)	high	40-60	Ile
Maymen stony loam (151)	30 - 75	0.20 - 0.24	0.6-2.0 (moderate)	low-moderate	10-20	VIIe
Ben Lomond-Felton complex (114)	30 - 50	0.17	2.0-6.0 (moderately rapid)	low	40-72	VIe
Los Osos loam (147)	15 - 30	0.28 - 0.37	0.06-2.0 (slow)	moderate	20-40	IVe
Lompico-Felton complex (143)	30 - 50	0.17 - 0.28	0.6-6.0 (moderately rapid)	low-moderate	20-72	VIe
Lompico-Felton complex (142)	5 - 30	0.17 - 0.28	0.6-6.0 (moderately rapid)	low-moderate	20-72	IVe
Tierra-Watsonville complex (174)	15 - 30	0.24 - 0.32	0.06-2.0 (slow)	low-high	>60	IVe

TABLE C-1: SOIL TYPES AND ASSOCIATED CHARACTERISTICS (CONT'D)

Soil Series	Slopes (Percent)	Erosion Factor (a, b)	Permeability (in. per hr.) (a, c)	Shrink-Swell Potential (a, d)	Depth to Bedrock (in.)	Capability Classes and Subclasses (e)
Watsonville loam, thick surface (179)	2 - 15	0.24 - 0.28	0.06-2.0 (slow)	low-high	>60	IIIe
Aptos loam, warm (100)	15 - 30	0.17 - 0.28	0.6-2.0 (moderate)	low-moderate	20-40	IVe
Santa Lucia shaly clay loam (167)	5 - 30	0.10 - 0.15	0.6-2.0 (moderate)	low	20-40	IVe
Tierra-Watsonville complex (175)	30 - 50	0.24 - 0.32	0.06-2.0 (slow)	low-high	>60	VIe
Watsonville loam, thick surface (180)	15 - 30	0.24 - 0.28	0.06-2.0 (slow)	low-high	>60	IVe
Elder sandy loam (129)	0 - 2	0.32	0.6-2.0 (moderate)	low	>60	IIc
Elder sandy loam (130)	2 - 9	0.32	0.6-2.0 (moderate)	low	>60	IIIe
Bonnydoon-Rock outcrop complex (118)	50 - 85	0.32	0.6-2.0 (moderate)	moderate	10-20	VIIe
Soquel loam (172)	9 - 15	0.28 - 0.43	0.6-2.0 (moderate)	low	>60	IIIe
Ben Lomond-Catelli-Sur complex (113)	30 - 75	0.17	2.0-6.0 (moderately rapid)	low	20-60	VIIe
Sur-Catelli complex (173)	50 - 75	0.1	2.0-6.0 (moderately rapid)	low	20-40	VIIe

TABLE C-1: SOIL TYPES AND ASSOCIATED CHARACTERISTICS (CONT'D)

Soil Series	Slopes (Percent)	Erosion Factor (a, b)	Permeability (in. per hr.) (a, c)	Shrink-Swell Potential (a, d)	Depth to Bedrock (in.)	Capability Classes and Subclasses (e)
Maymen-Rock outcrop complex (153)	50 - 75	0.20 - 0.24	0.6-2.0 (moderate)	low-moderate	10-20	VIIe
Bonnydoon loam (117)	30 - 50	0.32	0.6-2.0 (moderate)	moderate	10-20	VIIe
Elkhorn sandy loam (135)	15 - 30	0.28 - 0.32	0.2-6.0 (moderately rapid)	low-moderate	>60	IVe
Ben Lomond sandy loam (111)	15 - 50	0.17	2.0-6.0 (moderately rapid)	low	40-60	VIe
Bonnydoon loam (116)	5 - 30	0.32	0.6-2.0 (moderate)	moderate	10-20	VIIe
Pinto loam (161)	0 - 2	0.17 - 0.28	0.06-2.0 (slow)	low-moderate	>60	III _s
Pinto loam (162)	2 - 9	0.17 - 0.28	0.06-2.0 (slow)	low-moderate	>60	III _e
Fluvaquentic Haploxerolls-Aquic Xerfluvents complex (139)	0 - 15	NA			NC	III _w
Elkhorn sandy loam (134)	9 - 15	0.28 - 0.32	0.2-6.0 (moderately rapid)	low-moderate	>60	III _e
Watsonville loam, thick surface (178)	0 - 2	0.24 - 0.28	0.06-2.0 (slow)	low-high	>60	III _s
Elkhorn sandy loam (133)	2 - 9	0.28 - 0.32	0.2-6.0 (moderately rapid)	low-moderate	>60	III _e

TABLE C-1 SOIL TYPES AND ASSOCIATED CHARACTERISTICS SUMMARIZED BY PIPELINE DISTANCE (CONT'D)

Soil Series	Slopes (Percent)	Erosion Factor (a, b)	Permeability (in. per hr.) (a, c)	Shrink-Swell Potential (a, d)	Depth to Bedrock (in.)	Capability Classes and Subclasses (e)
Watsonville loam (177)	2 - 15	0.24 - 0.28	0.06-2.0 (slow)	low-high	>60	IVe
water/wetland	NA	NA	NA	NA	NA	NA
Pits-Dumps complex (164)	NA	NA	NA	NA	NC	VIIIe
Baywood loamy sand (107)	30 - 50	0.15	6.0-20 (rapid)	low	>60	VIe
Soquel loam (171)	2 - 9	0.28 - 0.43	0.2-2.0 (moderate)	moderate	>60	IIIe
Cropley silty clay (123)	2 - 9	0.24	0.06-0.2 (very slow)	high	>60	IIIe
Nisene-Aptos complex (158)	50 - 75	0.20	0.6-6.0 (moderately rapid)	low-moderate	40-60	VIIe
Soquel loam (170)	0 - 2	0.28 - 0.43	0.2-2.0 (moderate)	moderate	>60	IIIe
Diablo clay (127)	15 - 30	0.24	0.06-0.2 (slow)	high	40-60	IVe

Notes:

- (a) Where a particular soil has more than one stratum and characteristics for erosion factors, permeability, and/or shrink-swell potential vary between them, this table presents the range of values represented by all strata.
- (b) Erosion factors are used to predict the erodibility of a soil and its tolerance to erosion in relation to specific kinds of land use and treatment. The soil erodibility factor (K) is a measure of the susceptibility of the soil to erosion by water. Soils having the highest K values are the most erodible. K values range from 0.10 to 0.64. To estimate annual soil loss per acre, the K value of a soil is modified by factors representing plant cover, grade and length of slope, management practices, and climate.

- (c) Permeability is the quality that enables the soil to transmit water or air, measured as the number of inches per hour that water moves through the soil. Terms describing permeability are very slow (less than 0.06 inch), slow (0.06 to 0.2 inch), moderately slow (0.2 to 0.6 inch), moderate (0.6 to 2.0 inches), moderately rapid (2.0 to 6.0 inches), rapid (6.0 to 20 inches), and very rapid (more than 20 inches).
- (d) The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures.
- (e) Capability classes and subclasses show, in a general way, the suitability of soils for most kinds of field crops. The soils are classed according to their limitations when they are used for field crops, the risk of damage when they are used, and the way they respond to treatment. The numbering system is defined as follows:

- I Soils have few limitations that restrict their use.
- II Soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.
- III Soils have severe limitations that reduce the choice of plants, or that require special conservation practices, or both.
- IV Soils have very severe limitations that reduce the choice of plants, or that require very careful management, or both.
- V Soils are not likely to erode but have other limitations, impractical to remove, that limit their use.
- VI Soils have severe limitations that make them unsuitable for cultivation.
- VII Soils have very severe limitations that make them unsuitable for cultivation.
- VIII Soils and landforms have limitations that nearly preclude their use for commercial crop production.
- e The main limitation is risk of erosion unless close growing plant cover is maintained.
- w Water in or on the soil interferes with plant growth or cultivation.
- s The soil is limited mainly because it is shallow, droughty, or stony.
- c The chief limitation is climate that is too cold or too dry.
- NE Soil not evaluated.
- NA Data not available or not estimated.
- NC Feature is not a concern.

Source: SCS, 1980