

## Criteria for Soils of Local Importance within the Palmer, Wasilla, and Upper Susitna Soil and Water Conservation Districts, Alaska

- All soils that properly classify into Land Capability Classes 2 and 3 as established by the Natural Resources Conservation Service (USDA-NRCS-Alaska, 1984).

- In addition, all soils that have all of the physical characteristics of Land Capability Class 2 and 3 soils, have a 30 day or greater frost-free season, but also experience less than 1250 growing degree days. These are the soils that would classify in land capability class 4C.

*Based on LAND CAPABILITY CLASSIFICATION GUIDE - ALASKA (USDA-NRCS, 1984)*

Class	Soil Depth <sup>1</sup> ----- T-factor	Minimum AWC to 10" ---or--- Top 30"	Surface Soil (10 Inches)			Permeability In/hr to 30"	Drainage Class ----- Water Table <sup>3</sup>	Flood Hazard <sup>3,4</sup>	Climate <sup>5</sup> ----- Growing Degree Days ----- FFS	% Slope	Water Erosion (KxS) Max. value	Wind Erosion (WEG)
			Texture <sup>2</sup>	Coarse Fragments (any Layer)	Stones							
2	> 20" ----- - 2 - 5	2 ----- 5	SCL, L, SIL, VFSL, FSL, SL, COSL; SICL, CL w/<35% Clay; < 8" Peat	<15% gravel	Class 1  < .01%	0.2-6.0	Well Mod. Well ----- > 30"	None, Rare	3 key crops mature 8 years in 10 ----- > 1500 ----- ≥ 90	0-7	1.5	2-8
3	> 20" ----- - Any T	2 ----- 3	Above plus LS, LFS, LVFS, SI, SIC, SC; CL and SICL w>35% clay; C w/<60% clay, < 8"Peat	<35% gravel	Class 1  < .01%	0.06-20	Well Mod. Well Somewhat Poorly ----- > 20"	None, Rare	2 key crops mature 8 years in 10 ----- > 1250 ----- ≥ 80	0-12	3.0	1-8
4C	<i>Meets requirements for classes 2 or 3</i>								1 key crop matures 8 years in 10 ----- ----- ≥ 30	<i>Meets requirements for classes 2 or 3</i>		

## Footnotes to Criteria for Soils of Local Importance

<sup>1</sup> Depth of mineral soil to permafrost, lithic, or paralithic contact; include organic layers only for Histosols

<sup>2</sup> Abbreviations for soil texture are:

C - Clay	CL – Silty Clay Loam	COS – Coarse Sand	COSL – Coarse Sandy Loam
FS – Fine Sand	FSL – Fine Sandy Loam	L – Loam	LCOS – Loamy Coarse Sand
LFS – Loamy Fine Sand	LS – Loamy Sand	LVFS – Loamy Very Fine Sand	S – Sand
SC – Sandy Clay	SCL – Sandy Clay Loam	SI – Silt	SIC – Silty Clay
SIL – Silt Loam	VFS – Very Fine Sand	VFSL – Very Fine Sandy Loam	

<sup>3</sup> During the growing season

<sup>4</sup> Abbreviations for flood Hazard are:

NONE - < 1% chance  
RARE – 1 – 5% chance

<sup>5</sup> Check climate data for survey area or subarea; note frost-free season (FFS) and growing degree-days, determine how many key crops can be grown.

<u>Key Crops</u>	<u>Required Frost Free Days</u>	<u>Required Growing Degree Days (40° base)</u>
Barley	90	1500
Potatoes	80	1250
Grass	30	-