Section 2 of 22 (2c - Soils Data Interpretation Table for IWM Planning)

Soil Texture	% Sand	% Silt	% Clay	CEC Range (meq/100g)	Bulk Density (g/cm^3)	Soil weight (Million lbs. per ac-ft)	Soil Solids		Unavail-able Water		Available Water		Soil Porosity at FC	
							% Vol.	in/ft	% Vol.	in/ft	% Vol.	in/ft	% Vol.	in/ft
Sands	86 - 98	2 - 14	2 - 8	2 – 6	1.65	4.48	62.3	7.47	2.5	0.3	4.17	0.5	31.1	3.73
Loamy Sands	72 - 88	2 - 28	2 - 14		1.6	4.35	60.4	7.25	7.0	0.84	8.33	1.0	24.3	2.91
Fine Sands V. F. Sands Loamy F. Sands Loamy V. F. Sands	86 - 98	2 - 14	2 - 8		1.65	4.48	61.5	7.38	10.2	1.22	10.4	1.25	17.9	2.15
	86 - 98	2 - 14	2 - 8		1.65	4.48								
	72 - 88	2 - 28	2 - 14		1.6	4.35								
	72 - 88	2 - 28	2 - 14		1.6	4.35								
Sandy Loam Fine Sandy Loam	46 - 84	2 - 48	2- 18	3 – 8	1.56	4.24	58.8	7.06	12.3	1.48	12.5	1.5	16.3	1.96
	46 - 84	2 - 48	2 - 18		1.56	4.24								
V. F. Sandy Loam Loam Silt Loam Silt	46 - 84	2 - 48	2 - 18		1.53	4.16	55.4	6.65	16.2	1.94	16.7	2.0	11.8	1.41
	26 - 50	30 - 48	10 - 26	7 – 15	1.42	3.86								
	2 - 48	52 - 78	2 - 26	10 –19	1.46	3.97								
	2 - 18	82 - 98	2 - 10		1.47	3.99								
Sandy Clay Loam Silty Clay Loam Clay Loam	46 - 78	2 - 26	22 - 36		1.4	3.8	50.2	6.02	20.0	2.4	18.3	2.2	11.5	1.38
	2 - 18	42 - 70	28 - 38		1.27	3.45								
	22- 44	18 - 50	28 - 38		1.32	3.59								
Sandy Clay Silty Clay Clay	46 - 62	2 - 16	38 - 54		1.33	3.61	47.9	5.75	21.5	2.58	16.7	2.0	13.9	1.67
	2 - 18	42 - 58	42 - 58		1.23	3.34								
	2 - 44	2 - 38	42 - 98	15 - 30	1.25	3.4								

- V = Very & F = Fine
- Particle diameter (mm) for Sand, Silt & Clay: Very Coarse Sand (2.0 - 1.0), Coarse Sand (1.0 - 0.5), Med. Sand (0.5 - 0.25), Fine Sand (0.25 - 0.1), Very Fine Sand (0.1 - 0.05), Silt (0.05 - 0.002) and Clay (< 0.002)
- Cation Exchange Capacity (CEC) taken from the Western Fertilizer Handbook, 2nd ED., 1995

- Bulk Density (Ref. bulk density calculator @ Pedosphere.com)
- Unavailable Water (Ref. Figure 1-9 of the National Engineering Handbook; Section 15 – Irrigation)
- Available Water (Ref. NRCS Salinity Management for Soil & Water; Table 5.1, page 5.10)
- FC = Field Capacity.

NOTE: Soil structure is evaluated for its effect on downward movement of water: Single grain (rapid), Granular (rapid), Blocky (moderate), Prismatic (moderate), Platy (slow) and Massive (slow). The Soil Intake Family (typically 0.1 thru 2.0) is used in IWM field evaluations and irrigation system design. Irrigation Water Quality (i.e., Electrical Conductivity of irrigation water (ECiw) in dS/m & Sodium Adsorption Ratio (SAR)) is evaluated for its potential detrimental effects on plant moisture availability and water infiltration. rudy.garcia.2008

Agronomy Tech Note 76 (http://www.nm.nrcs.usda.gov/technical/handbooks/iwm/nmiwm.html)