

EXHIBIT “E”

Summary of Applied Crop Water Duties Antelope Valley Area of Adjudication

Crop	Evapotranspiration of Applied Water (ET _{AW})	Total Applied Water (AW _T)	
	(inches/year)	(inches/year)	(feet/year)
Alfalfa	60.33	77.42	6.5
Carrots	27.47	46.83	3.9
Grain	21.52	30.90	2.6
Melons and Squash	23.91	33.88	2.8
Onions	37.57	53.96	4.5
Orchard (Deciduous)	47.38	59.22	4.9
Pasture	64.42	80.53	6.7
Potatoes	24.02	34.03	2.8
Sugar Beets	40.55	54.68	4.6
Vineyard (Grapes)	35.33	44.16	3.7

Appendix D-3: Table 4
Applied Crop Water Duties and Irrigation Efficiency Values
 (DU = 80%)

Antelope Valley Area of Adjudication

Crop	ET _c ¹ (in)	P _e ² (in)	ET _{AW} ³ (in)	DU ⁴ (%)	AW _c ⁵ (in)	AW _{er} ⁶ (in)	AW _{pr} ⁷ (in)	AW _T ⁸ (in)	AW _T ⁸ (ft)	E _{ir} ⁹ (%)
Alfalfa	62.10	1.77	60.33	80	75.42	0	2.0	77.42	6.5	81
Carrots	27.47	0.00	27.47	80	34.33	6	6.5	46.83	3.9	85
Grain	22.94	1.42	21.52	80	26.90	0	4.0	30.90	2.6	83
Melons/Squash	23.91	0.00	23.91	80	29.88	0	4.0	33.88	2.8	82
Onions	37.57	0.00	37.57	80	46.96	3	4.0	53.96	4.5	83
Orchard (Deciduous)	47.38	0.00	47.38	80	59.22	0	0.0	59.22	4.9	80
Pasture	66.19	1.77	64.42	80	80.53	0	0.0	80.53	6.7	80
Potatoes	24.02	0.00	24.02	80	30.03	0	4.0	34.03	2.8	82
Silage	27.31	0.00	27.31	80	34.14	0	4.0	38.14	3.2	82
Sugar Beets	40.55	0.00	40.55	80	50.68	0	4.0	54.68	4.6	81
Vineyard (Grapes)	35.33	0.00	35.33	80	44.16	0	0.0	44.16	3.7	80

¹ ET_c = K_p * ET_o where ET_o = average ET_o for specified periods, based on data from Victorville CIMIS Station, 1994-2003. K_p values from Univ. California Cooperative Extension

² P_e = effective precipitation offsetting ET_c up to 1/2 of the average precipitation, in Dec. - Feb., inclusive

³ ET_{AW} = evapotranspiration of applied water = ET_c - P_e

⁴ DU = irrigation distribution uniformity

⁵ AW_c = applied water for crop requirement = ET_{AW} - DU

⁶ AW_{er} = applied water for erosion control

⁷ AW_{pr} = applied water for field preparation and pre-irrigation

⁸ AW_T = applied crop water duty = AW_c + AW_{er} + AW_{pr}

⁹ E_{ir} = overall irrigation efficiency for beneficial uses = (ET_{AW} + AW_{er} + AW_{pr}) - AW_T