

APPENDIX C  
ET PROFILE AND PLANT FACTORS

Monthly Eto (inches)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Inches	Total Feet
<b>Zone 2</b>	1.77	2.94	4.12	5.89	7.06	8.24	8.24	6.48	5.89	4.12	2.35	1.77	58.87	4.91
<b>Zone 3</b>	1.93	3.21	4.50	6.42	7.71	8.99	8.99	7.06	6.42	4.50	2.57	1.93	64.22	5.35
<b>Zone 4</b>	2.29	3.82	5.35	7.65	9.17	10.70	10.70	8.41	7.65	5.35	3.06	2.29	76.46	6.37
<b>Zone 5</b>	2.50	4.17	5.83	8.33	10.00	11.67	11.67	9.17	8.33	5.83	3.33	2.50	83.34	6.94
<b>Percent Annual ETo</b>	0.03	0.05	0.07	0.10	0.12	0.14	0.14	0.11	0.10	0.07	0.04	0.03		

Zone #2 = ALL coves, upper and lower from Highway 111 South.

Zone #3 = Moderate winds, minimum monthly shadows, some blowing dust and sand, upper valley predominant wind from northwest.

Zone #4 = Moderate winds, minimum monthly shadows, some blowing dust and sand lower valley has lower elevation and more summer southwest wind.

Zone #5 = Frequent strong northwest winds, heavy blowing dust and sand, typical of I-10 corridor.

Maximum Applied Water Allowance (CCF) = ETo (inches) × 0.45 × Area (Square feet) × 0.62 ÷ 748

ET Adjustment Factor = 0.45

0.62= gallons per square foot per inch deep

CCF= 100 cubic feet = 1 billing unit= 748 gallons

Estimated Total Water Use (CCF) =  $\frac{\text{ETo (Inches)} \times \text{Plant Factor} \times \text{Area (Square Feet)} \times 0.62}{\text{Irrigation System Efficiency}} \div 748$

<u>Target Irrigation Efficiency</u>
0.80= Turf Rotor
0.75= Sprayheads
0.90= Drip/Micro/PC Bubblers

Emitters per Plant Estimate =  $\frac{\text{Area of Plant (square feet)} \times \text{Percent of Area to be Wet}}{\text{Square Feet Wet Per Emitter}}$

Soil Type	Inches Water Holding Capacity per Inch of Depth	Description
Very Coarse Sand	0.05	Typical of high on an alluvial fan
Blow Sand	0.07	Typical of mid valley ridge area
Fine Sand	0.10	Typical of low alluvial fans from Rancho Mirage to Indian Wells
Very Fine Silty Sand	0.15	Typical of lowest alluvial fans from La Quinta, Indio, Coachella
Silt Loam	0.17	Typical of lower valley agricultural areas located below sea level

Emitter Wetted Area Square Feet Each	Emitter Spacing
0.75 to 1.75	10"
1.75 to 3	18"
3 to 5	3'
5 to 10	4'
10 to 28	4.5'

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Plant Factor (Kc)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
<b>Cool Turf 100% **</b>	1.00	1.00	NR	NR	NR	NR	NR	NR	NR	1.00	1.00	1.00	1.00
<b>Warm Turf 100%**</b>	NR	NR	NR	0.80	0.80	0.80	0.80	0.80	0.80	NR	NR	NR	0.80
<b>Cool Turf 80%*</b>	0.80	0.80	0.80	0.70	NR	NR	NR	NR	NR	0.80	0.80	0.80	0.79
<b>Warm Turf 60%**</b>	NR	NR	NR	0.60	0.60	0.60	0.60	0.60	0.60	0.60	NR	NR	0.60
<b>Combined TurfSav*</b>	0.80	0.80	0.80	0.60	0.60	0.60	0.60	0.60	0.60	0.70	0.80	0.80	0.70
<b>Tree/Shrub/GC L*</b>	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
<b>Tree/Shrub/GC L**</b>	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
<b>Tree/Shrub/GC M*</b>	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
<b>Tree/Shrub/GC M**</b>	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
<b>Tree/Shrub/GC H*</b>	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
<b>Tree/Shrub/GC H**</b>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<b>Open Water Factor</b>	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10

CombinedTurfSav = Combination of cool and warm season turf according to normal management in the Coachella Valley  
 \* = Normal irrigation level to maintain established planting  
 \*\* = Normal irrigation level during plant establishment  
 \*\*\* = Approximate evaporation. Reference, WULCOLS IV

GC = Groundcover  
 L = Low water use, Kc. 0.1 to 0.3  
 M = Moderate water use, Kc. 0.4 to 0.6  
 H = High water use, Kc. 0.7 to 0.9  
 NR = Not Recommended