

## ZONING CODE

### 21 Attachment 3

## Appendix C

### ET PROFILE AND PLANT FACTORS

|                             | Jan>                                                                                                                                                                                         | <Feb | Mar  | Apr> | <May  | Jun   | Jul   | Aug   | Sep> | <Oct | Nov  | Dec  | Totals | Totals |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|-------|-------|-------|-------|------|------|------|------|--------|--------|
| <u>Monthly ETo (inches)</u> |                                                                                                                                                                                              |      |      |      |       |       |       |       |      |      |      |      | Inches | Feet   |
| Zone No. 1-Coves            | 1.71                                                                                                                                                                                         | 2.84 | 4.00 | 5.70 | 6.84  | 7.98  | 7.98  | 6.27  | 5.70 | 4.00 | 2.28 | 1.71 | 57.01  | 4.75   |
| Zone No. 2-COD              | 2.00                                                                                                                                                                                         | 3.36 | 4.68 | 6.68 | 8.02  | 9.35  | 9.35  | 7.35  | 6.68 | 4.68 | 2.67 | 2.00 | 66.82  | 5.57   |
| Zone No. 3-EMC              | 2.25                                                                                                                                                                                         | 3.75 | 5.25 | 7.50 | 9.00  | 10.50 | 10.50 | 8.25  | 7.50 | 5.25 | 3.00 | 2.25 | 75.00  | 6.25   |
| Zone No. 4-TH               | 2.64                                                                                                                                                                                         | 4.40 | 6.16 | 8.80 | 10.56 | 12.32 | 12.32 | 9.68  | 8.80 | 6.16 | 3.52 | 2.64 | 88.00  | 7.33   |
| Zone No. 5-I10              | 2.82                                                                                                                                                                                         | 4.68 | 6.57 | 9.39 | 11.27 | 13.15 | 13.15 | 10.33 | 9.39 | 6.57 | 3.76 | 2.82 | 93.90  | 7.83   |
| % Annual ETo per Month      | 3                                                                                                                                                                                            | 5    | 7    | 10   | 12    | 14    | 14    | 11    | 10   | 7    | 4    | 3    |        |        |
| Zone No. 1 =                | Most protected cove areas with minimum wind, longest mountain shadows, higher rainfall, Palm Can. to La Q. Cove                                                                              |      |      |      |       |       |       |       |      |      |      |      |        |        |
| Zone No. 2 =                | Lower cove areas, light winds, long afternoon shadows from mountains, typ. Hwy 111 from Cathedral City to La Quinta                                                                          |      |      |      |       |       |       |       |      |      |      |      |        |        |
| Zone No. 3, 4 =             | Moderate winds, minimum mountain shadows, some blowing sand and dust; 3) Upper valley predominate wind from northwest;<br>4) Lower valley has lower elevation and more summer southeast wind |      |      |      |       |       |       |       |      |      |      |      |        |        |
| Zone No.5 =                 | Frequent strong northwest winds, heavy blowing sand and dust, typical of I-10 corridor to Washington Street                                                                                  |      |      |      |       |       |       |       |      |      |      |      |        |        |

Maximum Applied Water Allowance (CCF) = ETo (in inches for season) X 0.45 X Area (in square feet) X 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

$$\text{Estimated Total Water Use (CCF)} = \frac{\text{ETo (in inches for season)} \times \text{Plant Factor} \times \text{Area (in square feet)} \times 0.62}{748}$$

Irrigation System Efficiency

Target Irrigation Efficiency = 0.80 Turf Rotor  
= 0.75 Sprayheads  
= 0.90 Drip/Micro/PC Bubbler

Emitters per Plant Estimate =  $\frac{\text{Area of Plant in Square Feet} \times \% \text{ of Area to Be Wet}}{\text{Square Feet Wet Per Emitter}}$

| Soil Type            | (inches water holding capacity per inch of depth)                       | Emitter Wetted Area<br>Square Feet Each | Emitter<br>Spacing |
|----------------------|-------------------------------------------------------------------------|-----------------------------------------|--------------------|
| Very Coarse Sand     | 0.05 Typical of high on an alluvial fan                                 | 0.75 to 1.75                            | 10"                |
| Blow Sand            | 0.07 Typical of mid valley ridge area                                   | 1.75 to 3                               | 18"                |
| Fine Sand            | 0.10 Typical of low on alluvial fans from Rancho Mirage to Indian Wells | 3 to 5                                  | 3'                 |
| Very Fine Silty Sand | 0.15 Typical of lowest alluvial fans from La Quinta, Indio, & Coachella | 5 to 10                                 | 4'                 |
| Silt Loam            | 0.17 Typical of lower valley agricultural areas located below sea level | 10 to 28                                | 4.5'               |

|                          | Jan  | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Avg  |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <u>Plant Factor (Kc)</u> |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Cool Turf 100%**         | 1.00 | 1.00 | 1.00 | NR   | NR   | NR   | NR   | NR   | NR   | 1.00 | 1.00 | 1.00 | 1.00 |
| Warm Turf 100%**         | NR   | NR   | NR   | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | NR   | NR   | NR   | 0.80 |
| Cool Turf 80%*           | 0.80 | 0.80 | 0.80 | 0.70 | NR   | NR   | NR   | NR   | NR   | 0.80 | 0.80 | 0.80 | 0.79 |
| Warm Turf 60%*           | NR   | NR   | NR   | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | NR   | NR   | 0.60 |
| Combined TurfSav*        | 0.80 | 0.80 | 0.80 | 0.70 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.70 | 0.80 | 0.80 | 0.70 |
| Tree/Shrub/GC L*         | 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 |
| Tree/Shrub/GC L**        | 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 |
| Tree/Shrub/GC M*         | 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 |
| Tree/Shrub/GC M**        | 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 |
| Tree/Shrub/GC H*         | 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 |
| Tree/Shrub/GC H**        | 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 |
| Open WaterFactor         | 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 |

(Approx. Evaporation from a still water surface, higher factor (1.2) with falls and fountains.) Reference; WUCOLS IV

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

GC = Groundcover

L = Low water use Kc .1 to .3

M = Moderate water use Kc .4 to .6

H = High water use Kc .7 to .9

NR = Not Recommended