WATER EFFICIENT LANDSCAPE WORKSHEET

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Planning Division

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Water Budget Calculation

Provide a water budget calculation for the landscape project based on the information included in section (a) through (d) below:

a. Apply the following ETo values to the Maximum Applied Water Allowance and Estimated Total Water Use:

Reference Evapotranspiration (ETo) Table												
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual Eto
2.2	2.3	3.8	4.3	5.5	5.9	6.9	6.4	5.1	3.2	2.5	2	50.2

b. Use the Water Use Classification of Landscape Species (WUCOLS) plant factor or from horticultural researchers with academic institutions or professional associated as approved Department of Water Resources (DWR). The plant factor is as follows:
   1) Very low water use plants = 0 to 0.1
   2) Low water use plants = 0.1 to 0.3
   3) Moderate water use plants = 0.4 to 0.6
   4) High water use plants = 0.7 to 1.0

c. Include all water features in the high water use hydrozone. Include temporary irrigated areas in the low water use hydrozone.

d. Identify and calculate the water use for all Special Landscape Areas. This includes edible plants, areas irrigated with recycled water, water features using recycled water, and areas dedicated to active play, such as parks, sports fields, golf courses, and where turf provides a playing surface. The ET Adjustment Factor (ETAF) for new and existing (non-rehabilitated) Special Landscape Areas shall not exceed 1.0.

Maximum Applied Water Allowance (M.A.W.A.)

Calculate the project's Maximum Applied Water Allowance using the following formula:

MAWA (Annual Gallons Allowed) = (ETo) (0.62) [(ETAF x LA) + ((1 – ETAF) x SLA)]

Where:

MAWA	=	Maximum Applied Water Allowance (gallons per year)
0.62	=	Conversion Factor
0.7	=	ET Adjustment Factor
ETAF	=	0.55 for Residential Areas & 0.45 for Non-residential Areas
LA	=	Landscape Area includes Special Landscape Area (sq. ft.)
SLA	=	Special Landscape Area (sq. ft.)
ETo	=	Reference Evapotranspiration (inches per year). The ETo for Monrovia is 50.2.

Total Landscape Area (including SLA) (LA) = _____square feet

Special Landscape Area (SLA) = _____square feet

Please Show Calculation:

$$(50.2\ Inches)(0.62)\left[(\_\_\_\_\_ \times \_\_\_\_\_) + \left((1 - \_\_\_\_\_) \times \_\_\_\_\_\right)\right]$$

$$(31.12) \times [(\_\_\_\_\_) + (\_\_\_\_\_)]$$

$$(31.12) \times [\_\_\_\_\_] = \_\_\_\_\_ \textbf{ gallons/year}$$

Estimated Total Water Use (E.T.W.U.)

Calculate the project's Estimated Total Water Use using the formula below. (A worksheet for calculating the ETWU is included on page 5.) The sum of Estimated Total Water Use calculated for all hydrozones should not exceed the project's MAWA (MAWA > ETWU).

ETWU (Annual Gallons Required) = ETo x 0.62 x ETAF x Area

Where:

ETo	=	Reference Evapotranspiration (inches per year). The ETo for Monrovia is 50.2
0.62	=	Conversion Factor
ETAF	=	PF/IE
Area	=	Landscape Area includes Special Landscape Area (sq. ft.)

Project ETWU Calculation (Attach Additional Sheets for Additional Zones, If Needed)

Total Landscape Area (Including SLA) (LA) = _____Sq. Feet

Special Landscape Area (SLA) = _____Sq. Feet

Hydrozone[1]	Plant Factor (PF)	Irrigation Method[2]	Irrigation Efficiency (IE)[3]	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	ETWU
Regular Landscape Areas							
Special Landscape Areas							
				1			
				1			
				1			
				1			
						ETWU Total	

[1] Hydrozone
E.g.
low water use planting
medium water use planting

[2] Irrigation Method
overhead spray
or drip

[3] Irrigation Efficiency
0.75 for spray head
0.81 for drip

Estimated Total Water Use (E.T.W.U.) Continued

Please Show Calculation:

ETWU = $(50.2\ Inches) \times (0.62) \times$ (_____) × (_____)

= $(31.12) \times$ (_____)

= _____ **gallons/year**

_____ **>** _____

MAWA **ETWU**