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**ATTACHMENT A (DRAFT)
WATER EFFICIENT WORK SHEET**

PROJECT NAME: Colorado Blvd. Streetscape Improvements Rosemead Blvd. to Michillinda Ave.
PROJECT LOCATION: Pasadena
TOTAL LANDSCAPE AREA: 187,666 sq.ft.

Maximum Applied Water Allowance (MAWA)					
MAWA = (ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]					
MAWA = Maximum Applied Water Allowance					
ETo = Reference Evapo.....					
0.62 = Conversion factor (to gallons per square foot)					
0.7 = ET Adjustment Factor (ETAF)					
LA = Landscaped Area; includes					
0.3 = Additional ET Adjustment Factor for Special Landscape Area (1.0 - 0.7 = 0.3)					
SLA = Portion of Landscape Area identified as Special Landscape Area - see Definitions. (square feet)					
Applicant to fill in boxes below.					
	52.3	ETo (reference Evapotranspiration from Appendix A (Inches per year)			
	187,666	Landscape Area including Special Landscape Area/SLA (square feet)			
	145,640	Portion of Landscape Area identified as Special Landscape Area (square feet)			
	ETo	ETAF	AREA (s.f.)	Conversion	MAWA
MAWA for LA	52.3 x	0.7 x	187,666 x	0.62 =	4,259,680
MAWA for SLA*	52.3 x	0.3 x	145,640 x	0.62 =	1,416,757
Total MAWA					5,676,437 (gallons per year)

Estimated Total Water Use (ETWU)

ETWU = (ETo) (0.62) [(PF x HA) / IE + SLA]

ETWU = Estimated ...
ETo = Reference Evapo.....
0.62 = Conversion factor (to gallons per square foot) .
PF = Plant Factor from WUCOLS (see Definitions)
HA = Hydrozone Area - planting area separated to high, moderate, low and very low water use areas (square feet)
IE = Irrigation Efficiency - see Chart ** (minimum 0.71)

SLA - Portion of Landscape Area identified as Special Landscape Area - see Definitions (square feet)

ETWU arrived from Hydrozone Table below= 5,298,326 gallons per year

HYDROZONE TABLE

hydrozone	plant water use type	plant factor (PF) (see table B)	hydrozone area (HA) (square ft.)	PFxHA (square ft.)	% of landscape area (LA)	irrigation efficiency IE	Hydro-zone ETWU
1	cool/turf	0.8	0	0	0%	0.71	0
2	warm/turf	0.6	0	0	0%	0.71	0
3	high water	0.8	0	0	0%	0.71	0
4	mod.water	0.5	0	0	0%	0.90	0
5	low water	0.3	42,026	12,608	22%	0.71	575,804
6	low water	0.2	0	0	0%	0.90	0
7	very low	0.1	0	0	0%	0.90	0
						<i>Subtotal ETWU</i>	575,804
8	SLA	--	145,640	--	78%	--	4,722,523
		TOTAL	187,666		100%		5,298,326

Table A - PF (Plant Factor)

Cool Season Turf*	0.8	
Warm Season Turf**	0.6	
High Water Using Plants	0.8	can be between 0.7 - 0.9
Moderate Water Using Plants	0.5	can be between 0.4 - 0.6
Low Water Using Plants	0.2	can be between 0.1 - 0.3
Very Low water Using Plants	0.1	below 0.1

* species include tall fescue, ryegrass, bentgrass and kentucky bluegrass

** species include bermudagrass, zoysizgrass, st. augustinegrass

Table B - IE (Irrigation Efficiency)

Pop-up spray heads	0.71
Rotor heads	0.75
Microspray	0.75
Bubblers	0.8
Drip emitters	0.85
Subsurface irrigation	0.9

note: adjustment can be made based on exact type of equipment