



LANDSCAPE/IRRIGATION WORKSHEET

Tap sizing for dedicated irrigation taps

Yellow fields require user input

$$\text{Irrigation Water Requirement} = (\text{ETo} \times \text{PF} \times \text{LA}) / \text{IE}$$

Define Landscape & Irrigation System:

High Water Use Plant Material
 *Cool season turfgrass (Kentucky bluegrass)

Plant Factor (PF, %)	High	0.9
Landscape Area (LA, sq ft)	2,537	
Irrigation Efficiency (IE, %)	Overhead	0.65

High-Moderate Water Use Plant Material
 *Hybrid grass types (Texas hybrids, fescue, etc.)

Plant Factor (PF, %)	High-Med	0.8
Landscape Area (LA, sq ft)	0	
Irrigation Efficiency (IE, %)	Overhead	0.65

Moderate Water Use Plant Material
 *Traditional trees/shrubs/perennials, alternative grass types (buffalograss, blue grama, etc.)

Plant Factor (PF, %)	Med	0.5
Landscape Area (LA, sq ft)	12803	
Irrigation Efficiency (IE, %)	Drip	0.9

Low Water Use Plant Material
 *Xeric trees/shrubs/perennials, native grass mixes

Plant Factor (PF, %)	Low	0.25
Landscape Area (LA, sq ft)	0	
Irrigation Efficiency (IE, %)	Drip	0.9

*PWSD holds final discretion for determining appropriate plant factor designations based on landscape plan submission

Site Summary:

Total Irrigated Area (sq ft)	15340
Avg Plant Factor (%)	0.57
Avg Irrigation Efficiency (%)	0.86

Peak monthly ET, Parker, CO:

Peak monthly ET (July):	7.56	in
-------------------------	------	----

Irrigation Water Requirement (IWR):

Peak monthly IWR:	49804	gal
Maximum flow requirement	5.2	GPM

* Max. flow requirements are based on peak monthly irrigation demands and follow PWSD's watering guidelines

Hydraulic Requirements:

Tap Size (in)	Max GPM v = 7.5 fps
3/4"	10
1"	18
1 1/2"	40
2"	71
3"	189
4"	380
* 2" and smaller assumes Seamless K Copper Tube 3" and larger assumes Ductile Iron Pipe Class 350	
Tap Size Requirement	3/4"

System Design Pressure: 70 PSI

- Design pressure has been field tested & verified
- This form has been completed in compliance with PWSD's Engineering Standards & Specifications Manual regarding irrigation design specifications

[Visit Appendix B of the SMWSA Model Ordinance for Plant Factor Guidelines](#)