



# 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:	
<b>High Water Use Plant Material</b>	
*Cool season turfgrass (Kentucky bluegrass)	
Plant Factor (PF, %)	High 0.9
Landscape Area (LA, sq ft)	0
Irrigation Efficiency (IE, %)	Overhead 0.65
<b>High-Moderate Water Use Plant Material</b>	
*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
<b>Moderate Water Use Plant Material</b>	
*Traditional trees/shrubs/perennials, alternative grass types (buffalograss, blue grama, etc.)	
Plant Factor (PF, %)	Med 0.5
Landscape Area (LA, sq ft)	4063
Irrigation Efficiency (IE, %)	Drip 0.9
<b>Low Water Use Plant Material</b>	
*Xeric trees/shrubs/perennials, native grass mixes	
Plant Factor (PF, %)	Low 0.25
Landscape Area (LA, sq ft)	8423
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)	12486
Avg Plant Factor (%)	0.33
Avg Irrigation Efficiency (%)	0.90

Peak monthly ET, Parker, CO:	
Peak monthly ET (July):	7.56 in

Irrigation Water Requirement (IWR):	
Peak monthly IWR:	21547 gal
Maximum flow requirement	2.3 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	
<b>Tap Size Requirement</b>	<b>3/4"</b>

System Design Pressure: 80 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](#)