



# LANDSCAPE/IRRIGATION WORKSHEET

Tap sizing for dedicated irrigation taps

**\*Yellow fields require user input\***

**Irrigation Water Requirement = (ET<sub>o</sub> x PF x LA)/IE**

Define Landscape & Irrigation System:			
<b>High Water Use Plant Material</b>			
*Cool season turfgrass (Kentucky bluegrass)			
Plant Factor (PF, %)	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 50px; text-align: center;">High</td> <td style="width: 50px; text-align: center;">0.9</td> </tr> </table>	High	0.9
High	0.9		
Landscape Area (LA, sq ft)	0		
Irrigation Efficiency (IE, %)	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 50px; text-align: center;">Overhead</td> <td style="width: 50px; text-align: center;">0.65</td> </tr> </table>	Overhead	0.65
Overhead	0.65		
<b>High-Moderate Water Use Plant Material</b>			
*Hybrid grass types (Texas hybrids, fescue, etc.)			
Plant Factor (PF, %)	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 50px; text-align: center;">High-Med</td> <td style="width: 50px; text-align: center;">0.8</td> </tr> </table>	High-Med	0.8
High-Med	0.8		
Landscape Area (LA, sq ft)	0		
Irrigation Efficiency (IE, %)	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 50px; text-align: center;">Overhead</td> <td style="width: 50px; text-align: center;">0.65</td> </tr> </table>	Overhead	0.65
Overhead	0.65		
<b>Moderate Water Use Plant Material</b>			
*Traditional trees/shrubs/perennials, alternative grass types (buffalograss, blue grama, etc.)			
Plant Factor (PF, %)	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 50px; text-align: center;">Med</td> <td style="width: 50px; text-align: center;">0.5</td> </tr> </table>	Med	0.5
Med	0.5		
Landscape Area (LA, sq ft)	12,881		
Irrigation Efficiency (IE, %)	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 50px; text-align: center;">Drip</td> <td style="width: 50px; text-align: center;">0.9</td> </tr> </table>	Drip	0.9
Drip	0.9		
<b>Low Water Use Plant Material</b>			
*Xeric trees/shrubs/perennials, native grass mixes			
Plant Factor (PF, %)	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 50px; text-align: center;">Low</td> <td style="width: 50px; text-align: center;">0.25</td> </tr> </table>	Low	0.25
Low	0.25		
Landscape Area (LA, sq ft)	0		
Irrigation Efficiency (IE, %)	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 50px; text-align: center;">Drip</td> <td style="width: 50px; text-align: center;">0.9</td> </tr> </table>	Drip	0.9
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)	12881
Avg Plant Factor (%)	0.50
Avg Irrigation Efficiency (%)	0.90

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

Irrigation Water Requirement (IWR):	
Peak monthly IWR:	33542 gal
Maximum flow requirement	3.5 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: 65 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