No Permanent Irrigation: Step 1

Select one of the following:

○ **Submetered Irrigation:** Permanently installed subsystem metering is in place for the irrigation systems at the project building and associated grounds.

⦿ **Non-Metered Irrigation:** Irrigation systems are not metered separately from other water subsystems at the project building and associated grounds.

NON-METERED IRRIGATION

Select the option for Non-Metered Irrigation

No Permanent Irrigation: Step 2

No permanent irrigation: The landscaping installed does not require permanent irrigation systems. Temporary irrigation systems used for plant establishment will be removed within one year of installation.

NO PERMANENT IRRIGATION

☐ The project building and associated grounds have no permanent irrigation systems.

Upload WEc3-6. Provide a signed statement from the facility manager, property manager, or property owner stating that there is no permanent irrigation system installed on the grounds and that temporary or hand-watering occurs only on an as-needed basis and only during periods of drought or for the establishment of new plantings.

Upload *Files:*

Select no permanent irrigation and upload a signed statement confirming that there is no permanent irrigation.

Theoretical Calculation: Step 1

NON-METERED IRRIGATION

Select one of the following:

○ **LEED Design & Construction Streamlined Path:** The project building earned a prerequisite or at least one point for water efficient landscaping under LEED for New Construction, LEED for Core and Shell, or LEED for Schools.

◉ **Theoretical Performance Calculation (Option 2):** Irrigation water reduction is determined by comparing theoretical baseline and design mid-summer irrigation water use.

○ **No permanent irrigation:** The landscaping installed does not require permanent irrigation systems. Temporary irrigation systems used for plant establishment will be removed within one year of installation.

Select non-metered irrigation and then the option for Option 2: Theoretical Performance Calculation.

Theoretical Calculation: Step 2

THEORETICAL PERFORMANCE CALCULATION

Performance period start: [　　　　　　　]

Performance period end: [　　　　　　　]

Reference evapotranspiration rate (ET_o): [　　　　　　6.8]

Table. Irrigation Baseline Case (July)

Input the ETo. This is often a value between 4 and 8. It's not always easy to track down but is generally gathered with local weather data stations.

Theoretical Calculation: Step 3

Landscape Type	Area (sf)	ks	kd	kmc[1]	K_L	ET_0	ET_L	Irrigation Type	IE	TWA (Gal)
Turf grass	9,019	0.8	1	0.8	0.64	6.8	4.35	Sprinkler ▼	0.625	39,126
Mixed - Trees, Sh	2,255	0.5	1.1	0.5	0.28	6.8	1.9	Sprinkler ▼	0.625	4,273
Total area	11,274					Baseline Total Potable Water Applied (TPWA) (gal)				43,399

[Add Row]   [Delete Row]

Table. Irrigation Design Case (July)

Landscape Type	Area (sf)	ks	kd	kmc[1]	K_L	ET_0	ET_L	Irrigation Type	IE	CE	TWA (Gal)
Turf grass	4,977	0.8	1	0.8	0.64	6.8	4.35	Sprinkler ▼	0.625	1	21,601
Mixed - Trees, Sh	6,297	0.2	1.1	0.5	0.11	6.8	.75	Drip ▼	0.9	1	3,262
Total area	11,274						Design total water applied (TWA) (gal)				24,863
							Nonpotable water used (gal)				0
							Design total potable water applied (TPWA) (gal)				24,863

Enter the baseline and installed irrigation cases.

Theoretical Calculation: Tips

Landscape Type	Area (sf)	ks	kd	kmc[1]				Irrigation	IE	TWA
Turf grass	9,019	0.8	1					Sprinkler	.625	39,126
Mixed - Trees, Sh	2,255	0.5	1.1		0.5	0.28	6.8	1.9 Sprinkler ▼	0.625	4,273
Total area	11,274						Baseline Total Potable Water Applied (TPWA) (gal)			43,399

Higher area of turf grass in the base case. But not 100%

[Add Row] [Delete Row]

Total area must be consistent

Table. Irrigation Design Case (July)

Landscape Type	Area (sf)	ks	kd	kmc[1]	K_L	ET_0	ET_L	Irrigation Type	IE	CE	TWA (Gal)
Turf grass	4,977	0.8	1	0.8	0.64	6.8	4.35	Sprinkler ▼	0.625	1	21,601
Mixed - Trees, Sh	6,297	0.2	1.1	0.5	0.11	6.8	.75	Drip ▼	0.9	1	3,262
Total area	11,274							Design total water applied (TWA) (gal)			24,863
								Nonpotable water used (gal)			0
								Design total potable water applied (TPWA) (gal)			24,863

If claiming some controller efficiency, must back up with manufacturer data

Theoretical Calculation: Tips

Landscape Type	Area (sf)	ks	kd	kmc[1]	K_L	ET_0	ET_L	Irrigation Type	IE	TWA (Gal)
Turf grass	9,019	0.8	1	0.8	0.64	6.8	4.35	Sprinkler ▼	0.625	39,126
Mixed - Trees, Sh	2,255	0.5	1.1	0.5	0.28	6.8	1.9	Sprinkler ▼	0.625	4,273
Total area	11,274				Baseline Total Potable Water Applied (TPWA) (gal)					43,399

Add Row   Delete Row

Values for ks, kd, and kmc are consistent with low-med-high from the reference guide. If not, justify with a narrative

Table: Irrigation Design Case (July)

Landscape Type	Area (sf)	ks	kd	kmc[1]	K_L	ET_0	ET_L	Irrigation Type	IE	CE	TWA (Gal)
Turf grass	4,977	0.8	1	0.8	0.64	6.8	4.35	Sprinkler ▼	0.625	1	21,601
Mixed - Trees, Sh	6,297	0.2	1.1	0.5	0.11	6.8	.75	Drip ▼	0.9	1	3,262
Total area	11,274				Design total water applied (TWA) (gal)						24,863
					Nonpotable water used (gal)						0
					Design total potable water applied (TPWA) (gal)						24,863

Theoretical Calculation: Tips

Landscape Type	Area (sf)	ks	kd	kmc[1]	K_L	ET_0	ET_L	Irrigation Type	IE	TWA (Gal)
Turf grass	9,019	0.8	1	0.8	0.64	6.8	4.35	Sprinkler ▼	0.625	39,126
Mixed - Trees, Sh	2,255	0.5	1.1	0.5	0.28	6.8	1.9	Sprinkler ▼	0.625	4,273
Total area	11,274					Baseline Total Potable Water Applied (TPWA) (gal)				43,399

Values for kd are often the same between the baseline and installed case. Justify differences with a narrative

Values for kmc must always be the same for the design and installed cases

Table Irrigation Design Case (July)

Type	(sf)	ks	kd	kmc[1]	K_L	ET_0	ET_L	Irrigation Type	IE	CE	TWA (Gal)
Turf grass	4,977	0.8	1	0.8	0.64	6.8	4.35	Sprinkler ▼	0.625	1	21,601
Mixed - Trees, S	6,297	0.2	1.1	0.5	0.11	6.8	.75	Drip ▼	0.9	1	3,262
					Design total water applied (TWA) (gal)						24,863
					Nonpotable water used (gal)						0
					Design total potable water applied (TPWA) (gal)						24,863

Add Row   Delete Row