Water efficient landscaping

WEc3.3 | Possible 1 point

Intent

To limit or eliminate the use of potable water or other natural surface or subsurface resources available on or near the project site for landscape irrigation.

Requirements

Reduce potable water or other natural surface or subsurface resource consumption for irrigation compared with conventional means of irrigation. If the building does not have separate water metering for irrigation systems, the water-use reduction achievements can be demonstrated through calculations. Points are earned according to the following schedule:

- **WE Credit 3.1** (1 point): 50% reduction in potable water or other natural surface or subsurface resource use for irrigation over conventional means of irrigation.
- **WE Credit 3.2** (2 points): 75% reduction in potable water or other natural surface or subsurface resource use for irrigation over conventional means of irrigation.
- **WE Credit 3.3** (3 points): 100% reduction in potable water or other natural surface or subsurface resource use for irrigation over conventional means of irrigation.

For buildings without vegetation or other ecologically appropriate features on the grounds, points can be earned by reducing the use of potable water for watering any roof and/or courtyard garden space or outdoor planters, provided the planters and/or garden space cover at least 5% of the building site area (including building footprint, hardscape area, parking footprint, etc). If the planters and/or garden space cover less than 5% of the building site area, the project is ineligible for this credit.

Three options are available to demonstrate compliance with the above requirements. Project teams that do not separately meter their actual irrigation water use during the performance period must choose Option B.

Choose one of the following options:

Option A

Calculate the baseline irrigation water use by determining the water use that would result from using an irrigation system typical for the region and compare this with the building's actual irrigation potable water use, which can be determined through submetering. Use the baseline and actual water use values to calculate the percentage reduction in potable water or other natural surface or subsurface resource use. More detail about completing this calculation is available in the LEED for Existing Buildings: Operations & Maintenance Reference Guide.

Option B

Calculate the estimated irrigation water use by determining the landscape area for the project and sorting this area into the major vegetation types. Determine the reference evapotranspiration rate (ET0) for the region and determine the Species Factor (ks), Density Factor (kd) and Microclimate Factor (kmc) for each vegetation type. Use this information to calculate the Landscape Coefficient (KL) and irrigation water use for the design case. Calculate the baseline case irrigation water use by setting the above factors to average values representative of conventional equipment and design practices. Use the estimated and baseline case to determine the percentage reduction in potable water or other natural surface or subsurface resource use. Factor values and other resources for completing these calculations are available in the LEED for Existing Buildings: Operations & Maintenance Reference Guide.

Option C

If independent irrigation performance and ranking tools are available from local, regional, state or national sources, use such tools to demonstrate reductions in potable water or other natural surface or subsurface resource for irrigation purposes. Provide information about the independent tool to demonstrate that it is technically sound.

Potable water is defined as water that is suitable for drinking and is supplied from wells or municipal water systems.