

Calculator: Water Efficient Landscaping Calculator

www.usgbc.org/ShowFile.aspx?DocumentID=9213

Summary

The Water Efficient Landscaping calculator was developed as part of the LEED rating system for guiding the reduction in potable water use for landscaping irrigation.

Developers: US Green Building Council (USGBC)

Applicable sectors							Themes		
All Infrastructure	Buildings	Roads	Water	Energy	Transport	Construction	Materials	Ecology	Wastewater
							Potable Water	Carbon/GHG	Other

Countries	US	Access	Free to download
Compatibility with other tools	The Water Efficient Landscaping Calculator has been developed for use with the LEED rating system.	Guidance for users	Guidance for using the tool is provided in the introductory page of the calculator.
Inputs & outputs	<p>The user is prompted to select the combination of vegetation types in the planned site and the cover area of each.</p> <p>The user then selects from a dropdown menu low, medium or high values of species factor, density factor, microclimate factor for each vegetation type and irrigation and controller efficiencies. The user also includes volume of rainwater or greywater recycling.</p> <p>The calculator outputs the total monthly water consumption for the design and the baseline case and provides the net reduction in water consumption due to improvements in design.</p>	Methodology	<p>The calculator estimates the reduction in potable water use for irrigation in landscaping by comparing the total monthly water consumption of the design case with a baseline case.</p> <p>The water consumption is calculated based on the factors of:</p> <ul style="list-style-type: none"> - Regional evapotranspiration; - Landscape types and cover area; - Species factor; - Density factor; - Microclimate factor for each landscape type; - Irrigation system efficiency; - Controller efficiency (if applicable). <p>The calculation also considers use of a greywater or rainwater harvesting system.</p>
Database library	The calculator contains an inbuilt database of low, medium or high values for species factors, density factors and microclimate factors for different landscape types, as well as irrigation efficiencies for different irrigation systems (drip or sprinkler).	Data intensity & flexibility	Data flexibility is high as the user can use default values or enter their own. Data intensity is low as suggested values are included in the calculator, allowing the user to choose from a drop-down menu.

Note: "Free to download" does not necessarily imply that it is free for commercial use.