

**ANSI/ASABE S623.1 JAN2017**  
**Determining Landscape Plant Water Demands**



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## **Determining Landscape Plant Water Demands**

*Proposed by the Irrigation Association; approved by the ASABE Natural Resources and Environmental Systems Technical Community; approved by ASABE October 2015; approved by ANSI as an American National Standard October 2015, revised by ASABE and approved by ANSI as an American National Standard January 2017.*

**Keywords:** landscapes, turfgrass, plants, trees, shrubs, water, water budget, irrigation, sprinklers, soil

### **0 Foreword**

This standard was created to provide science-based guidelines for determination of the minimum plant water demands for mixed species landscapes that maintain adequate aesthetic quality. Plant water demands can be met by any combination of precipitation and irrigation.

The plant factors and other information in this standard are broad in nature and based on available science. Localized climate data, if available, should be used to corroborate or customize as applicable. The plant categories are purposely broad for general applicability. If scientifically-proven reasons for altering the plant factors are available, the numbers may be adjusted accordingly.

An informative annex of information and techniques for application of the plant factors is included. This annex may also be used to aid decisions for potential deficit watering to maintain minimum survival requirements for plants under low water availability.

### **1 Scope**

This methodology will provide an estimate of plant water demands of permanently installed, non-production based, established landscape materials. The standard will provide minimum water demands for acceptable plant appearance and function. This standard does not cover plants for sports fields, golf courses, or food production. This methodology is applicable for planning and design of planted landscape areas as defined in section 3. It is assumed throughout this standard that the soil around the plants in question are wetted uniformly by precipitation or irrigation.

### **2 Normative References**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies unless noted. For undated references, the latest approved edition of the referenced document (including any amendments) applies.

ASCE Environmental and Water Resources Institute (EWRI) standardized reference evapotranspiration equation. 2005. Reston, Virginia: American Society of Civil Engineers.

### **3 Definitions**

**3.1 acceptable plant appearance:** a plant that is maintaining its intended health, coloration, growth and function is considered “acceptable” for purposes of this standard.