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

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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.