

**45-DAY EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
CALIFORNIA BUILDING STANDARDS COMMISSION**

**REGARDING PROPOSED CHANGES TO THE
CALIFORNIA GREEN BUILDING STANDARDS CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11**

The California Building Standards Commission (CBSC) proposes these regulations to be included in the 2013 edition of the California Green Building Standards Code (CALGreen), Part 11, Title 24, California Code of Regulations.

LEGEND FOR EXPRESS TERMS

1. New California amendments: All such language appears underlined.
2. Repealed text: All such language appears in ~~strikeout~~.

45-DAY EXPRESS TERMS

**CHAPTER 2
DEFINITIONS**

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ET ADJUSTMENT FACTOR (ETAF) [BSC] For the purposes of this Part, ETAF means a factor of 0.55 that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.

~~HYDROZONE.~~ ~~A portion of the landscaped area having plants with similar water needs.~~

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~~LANDSCAPE (PLANT) COEFFICIENT (K_L)~~ ~~The product of the species factor multiplied by the density factor and the microclimate factor. $\{K_L = K_s \times K_d \times K_{mg}\}$ The landscape coefficient is used in the landscape water budget calculation. (UCCE, 2000)~~

~~MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELo) [BSC]~~ ~~The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and climatological parameters. A California regulation commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations. The MWELo regulation establishes a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects.~~

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~~REFERENCE EVAPOTRANSPIRATION (ET_o) [BSC]~~ ~~The estimated rate of evapotranspiration from a standardized surface of well watered, actively growing cool season four to seven inch (10.16 to 17.78 cm)~~

~~turfgrass with sufficient density to fully shade the soil. The water needs of a landscape planting can be calculated by multiplying the Landscape Coefficient [K_L] and Reference Evapotranspiration (E_{T0}).~~

SPECIAL LANDSCAPE AREA (SLA) [BSC] means an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface. For the purposes of this Part, the additional water allowance for SLA's shall be 0.45.

WATER BUDGET. ~~Is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO).~~

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CHAPTER 5 NONRESIDENTIAL MANDATORY MEASURES

Division 5.3- WATER EFFICIENCY AND CONSERVATION

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SECTION 5.302 DEFINITIONS

5.302.1 Definitions. The following terms are defined in Chapter 2.

ET ADJUSTMENT FACTOR (ETAF)

GRAYWATER.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO).

POTABLE WATER.

RECYCLED WATER.

SUBMETER.

SPECIAL LANDSCAPE AREAS (SLA).

WATER BUDGET.

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SECTION 5.304 OUTDOOR WATER USE

5.304.1 Water budget. ~~A water budget shall be developed for landscape irrigation use that installed in conjunction with a new building or an addition or alteration conforms to the local water efficient landscape ordinance or to the California Department of Water Resources Model Water Efficient Landscape Ordinance where no local ordinance is applicable.~~

Note: Prescriptive measures to assist in compliance with the water budget are listed in Sections 492.5 through 492.8, 492.10 and 492.11 of the ordinance, which may be found at: <http://www.water.ca.gov/wateruseefficiency/docs/WaterOrdSec492.cfm>.

5.304.1 Outdoor water use in landscape areas 2,500 square feet or greater. [BSC] When water is used for outdoor irrigation for landscape projects 2,500 square feet or greater, one of the following shall apply:

1. A local water efficient landscape ordinance that is, based on evidence in the record, at least as effective in conserving water as the updated model ordinance adopted by the Department of Water Resources per Government Code Section 65595 (c) including an evapotranspiration adjustment factor (ETAF) of 0.55 and an additional water allowance for special landscape areas (SLA) of 0.45.
2. The California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELo) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations including an evapotranspiration adjustment factor (ETAF) of 0.55 and an additional water allowance for special landscape areas (SLA) of 0.45.

Notes:

1. MWELo prescriptive measures are listed in Sections 492.4 through 492.8, 492.10 and 492.11 of the Chapter 2.7, Division 2, Title 23, available at the following link: <http://www.water.ca.gov/wateruseefficiency/docs/WaterOrdSec492.cfm>
2. The Department Of Water Resources (DWR) landscape ordinance webpage is available at the following link: <http://water.ca.gov/wateruseefficiency/landscapeordinance/>
3. The water budget calculator for use with the 0.55 ETAF is available at the following link: <http://water.ca.gov/wateruseefficiency/landscapeordinance/>

5.304.2 Methods to reduce potable water use. [BSC] Other methods to reduce potable water use in landscape areas include but are not limited to:

1. Use of captured rainwater, recycled water, or graywater designed per the *California Plumbing Code*.
 - a. The use of potable water may be used as a back-up water supply for on-site water recycling and/or reuse systems may be allowed by the Authority Having Jurisdiction (AHJ), provided that it can be demonstrated to the AHJ that the amount of potable water used as back-up in the water recycle or reuse system is less than that which would have been used by other means authorized by the AHJ.
2. Water treated for irrigation purposes and conveyed by a water district or public entity.

5.304.2.1 Authorized potable water use. The use of potable water shall be authorized where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency.

5.304.3 Outdoor water use in landscape areas 1,000 to 2,500 square feet. [BSC] When water is used for outdoor irrigation for landscape projects at least 1,000 square feet but not more than 2,500 square

feet, the following shall apply:

5.304.3.1 ~~5.304.3~~ Irrigation design controller and sensor application.

In new nonresidential construction or building addition or alteration with at least 1,000 but not more than 2,500 square feet of cumulative landscaped area (the level at which the MWELo applies), install irrigation controllers and sensors which include the following criteria, and meet manufacturer's recommendations.

5.304.3.2 ~~5.304.3.1~~ Irrigation eControllers.

Automatic irrigation system controllers installed at the time of final inspection shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

Note: More information regarding irrigation controller function and specifications is available from the Irrigation Association.

5.304.4 ~~5.304.2~~ Outdoor potable water use meters.

For new water service or for addition or alteration requiring upgraded water service for landscaped areas of at least 1,000 square feet but not more than 5,000 square feet (the level at which *Water Code* §535 applies), separate submeters or metering devices shall be installed for outdoor potable water use.

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**APPENDIX A5
NONRESIDENTIAL VOLUNTARY MEASURES**

Division A5.3- WATER EFFICIENCY AND CONSERVATION

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**SECTION A5.302
DEFINITIONS**

COMPACT DISHWASHER.

HYDROZONE.

LANDSCAPE (PLANT) COEFFICIENT [KL].

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE.

PLANTS.

POTABLE WATER.

RECYCLED WATER.

REFERENCE EVAPOTRANSPIRATION (ET_o).

STANDARD DISHWASHER.

SUBMETER.

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**SECTION A5.304
OUTDOOR WATER USE**

A5.304.1 ~~A5.304.1.1~~ Reserved.

A5.304.2 ~~A5.304.2.1~~ Outdoor potable water use.

For new water service not subject to the provisions of *Water Code* Section 535, separate meters or submeters shall be installed for indoor and outdoor potable water use for landscaped areas of at least 500 square feet but not more than 1,000 square feet (the level at which Section 5.304.2 applies).

~~A5.304.4 Potable water reduction.~~

~~Provide water efficient landscape irrigation design that reduces the use of potable water beyond the initial requirements for plant installation and establishment in accordance with Section A5.304.4.1 or A5.304.4.2. Calculations for the reduction shall be based on the water budget developed pursuant to Section 5.304.1.~~

~~A5.304.4.1 Tier 1.~~

~~Reduce the use of potable water to a quantity that does not exceed 60 percent of ETo times the landscape area.~~

~~A5.304.4.2 Tier 2.~~

~~Reduce the use of potable water to a quantity that does not exceed 55 percent of ETo times the landscape area.~~

Note: ~~Methods used to accomplish the requirements of this section must be designed to the requirements of the *California Building Standards Code* and shall include, but not be limited to, the following:~~

- ~~1. Plant coefficient.~~
- ~~2. Irrigation efficiency and distribution uniformity.~~
- ~~3. Use of captured rainwater.~~
- ~~4. Use of recycled water.~~
- ~~5. Water treated for irrigation purposes and conveyed by a water district or public entity.~~
- ~~6. Use of graywater.~~

~~A5.304.4.3 Verification of compliance.~~

~~A calculation demonstrating the applicable potable water use reduction required by this section shall be provided.~~

~~A5.304.5 Potable water elimination.~~

~~Provide a water efficient landscape irrigation design that eliminates the use of potable water beyond the initial requirements for plant installation and establishment. Methods used to accomplish the requirements~~

of this section must be designed to the requirements of the ~~California Building Standards Code~~ and shall include, but not be limited to, the following:

1. ~~Plant coefficient.~~
2. ~~Irrigation efficiency and distribution uniformity.~~
3. ~~Use of captured rainwater.~~
4. ~~Use of recycled water.~~
5. ~~Water treated for irrigation purposes and conveyed by a water district or public entity.~~
6. ~~Use of graywater.~~

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**SECTION A5.305
WATER REUSE**

[No changes to section A5.305 Water reuse]

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**APPENDIX A5
NONRESIDENTIAL VOLUNTARY MEASURES**

Division A5.6 - VOLUNTARY TIERS

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[CBSC proposes to update TABLE A5.601 and TABLE A5.602 to reflect the approved emergency regulations]

Notation:

Authority – Health and Safety Code Sections 18930.5, 18934.5 and 18938 (b).

Reference – Health and Safety Code, Division 13, Part 2.5, commencing with Section 18901.