

**BUILDING STANDARDS COMMISSION**

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## **BUILDING STANDARDS INFORMATION BULLETIN 15-02**

**DATE:** June 1, 2015

**TO:** LOCAL BUILDING DEPARTMENTS  
STATE AGENCIES AND DEPARTMENTS  
LICENSED CONTRACTORS  
DESIGN PROFESSIONALS  
INTERESTED PARTIES

**SUBJECT:** Emergency Building Standards for Immediate Enforcement –  
Outdoor Landscape Irrigation

The purpose of this Information Bulletin is to bring attention to emergency building standard regulations that amend the 2013 California Green Building Standards Code (CALGreen), Part 11, Title 24, California Code of Regulations and are effective immediately.

During the California Building Standards Commission (CBSC) meeting on May 29, 2015, the CBSC commissioners approved (as amended) emergency building standards proposed by the Department of Housing and Community Development (HCD), the Division of the State Architect-Structural Safety (DSA-SS), the Office of Statewide Health Planning and Development (OSHPD), and CBSC. These emergency standards address exterior landscape irrigation systems applicable to specified residential and nonresidential buildings, and became effective and enforceable June 1, 2015, by local enforcement agencies and state agencies as specified in state law for the affected occupancies.

These emergency standards were developed in response to the Governor's Executive Order No. B-29-15 which addresses current ongoing emergency drought conditions in California. The complete text of each emergency standard is included in the attachment and is available on the Building Standards Commission Website [www.bsc.ca.gov](http://www.bsc.ca.gov) contained within the following state agency submittals:

- [BSC EF-01-15 \(for specified nonresidential applications\)](#)
- [HCD EF-01-15 \(for specified residential applications\)](#)
- [DSA-SS EF-01-15 \(for specified educational facilities\)](#)
- [OSHPD EF-01-15 \(for specified health facilities\)](#)

Supplement (blue) pages for these emergency regulations will be made available by the International Code Council (ICC) to existing code subscribers once the final rulemaking is certified as complete. Title 24 is composed of thirteen parts and is published by ICC,

the International Association of Plumbing and Mechanical Officials (IAPMO), and the National Fire Protection Agency (NFPA). For information regarding code subscriptions the publisher contact information follows:

- The International Code Council at:  
Website: <http://www.iccsafe.org/contact-icc/>  
Telephone: 800-786-4452  
(Publishes Parts 1, 2, 2.5, 6, 8, 9, 10, 11, and 12 of Title 24)
- The International Association of Plumbing and Mechanical Officials (IAPMO) at:  
Online Store website: <http://iapmomembership.org/>  
Telephone: 909-472-4208 or Email: at [publications@iapmo.org](mailto:publications@iapmo.org)  
(Publishes Parts 4 and 5 of Title 24)
- National Fire Protection Association (NFPA) – BNI Publishers at:  
<http://www.bnibooks.com/>  
Telephone: 888-264-2665  
(Publishes Part 3 of Title 24)

Pursuant to Government Code Section 11346.1, these emergency standards will expire after 180 days unless extended, or replaced with a final adoption of building standards. In order for the emergency building standards to become permanent, the state agencies named herein must complete the rulemaking process by engaging in the certification of compliance of the standards, including bringing the matter back before the CBSC at a public meeting to consider adoption.

During this process, the public will have an opportunity to address the state agencies and the CBSC with comments regarding the code language proposed for adoption and that will replace the emergency building standards language. All related rulemaking documents and announcements from the state agencies and CBSC are additionally made available on the CBSC website [www.bsc.ca.gov](http://www.bsc.ca.gov).

Questions concerning the emergency regulations and application to specific occupancies should be directed to as follows:

- CBSC (916) 263-0916 (For specified non-residential applications)
- HCD (916) 445-9471 (For specified residential applications)
- DSA-SS (916) 445-8100 (For specified educational facilities)
- OSHPD (916) 440-8356 (For specified health facilities)

Questions concerning this bulletin should be directed to this office at (916) 263-0916 or via E-mail at [cbsc@dgs.ca.gov](mailto:cbsc@dgs.ca.gov).



Jim McGowan  
Executive Director

## BUILDING STANDARDS COMMISSION (BSC) EF-01-15 - EMERGENCY 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.~~

...

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

~~**MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWEL0) [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 MWEL0 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 (ETo).** [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 [KI] and Reference Evapotranspiration (ETo).~~

~~**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 (MWEL0).~~

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### CHAPTER 5 NONRESIDENTIAL MANDATORY MEASURES

#### **Division 5.3- WATER EFFICIENCY AND CONSERVATION**

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#### **SECTION 5.302 DEFINITIONS**

**5.3042.1 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<sub>o</sub>).~~**

**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 ET<sub>o</sub> 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 ET<sub>o</sub> 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.

## DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT (HCD) EF-01-15 EMERGENCY EXPRESS TERMS

### CHAPTER 2 DEFINITIONS

**ET ADJUSTMENT FACTOR (ETAF).** A factor that, when applied to reference evapotranspiration (ET<sub>o</sub>), 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.~~

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

### CHAPTER 4 DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION SECTION 4.304 OUTDOOR WATER USE

**4.304.1 Outdoor potable water use in landscape areas.** On or after June 1, 2015, a water budget shall be developed for landscape irrigation use that conforms to the local water efficient landscape ordinance or to the California Department of Water Resources' Model Water Efficient Landscape Ordinance, whichever is more stringent.

The following factors shall be effective until subsequent revision of the MWELO by the California Department of Water Resources (DWR).

1. ET Adjustment Factor (ETAF) - 0.55.
2. Special Landscape Areas (SLA) - 0.45. (The resulting total ETAF for SLA shall be 1.0).

**Notes:**

1. Prescriptive measures to assist in compliance with the water budget are available in the Model Water Efficient Landscape Ordinance which may be found at: <http://www.water.ca.gov/wateruseefficiency/docs/WaterOrdSec492.cfm>
2. The water budget calculator for use with the 0.55 ETAF is available at: [Web address to be established]

**4.304.1.1 Methods to reduce potable water use.** Other methods to reduce potable water use in landscape areas include but are not limited to:

3. 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.
4. Water treated for irrigation purposes and conveyed by a water district or public entity.

**4.304.1.2 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.

~~4.304.1~~ **4.304.2 Irrigation controllers.** Automatic irrigation system controllers for landscaping provided by the builder and 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.

## APPENDIX A4 RESIDENTIAL VOLUNTARY MEASURES DIVISION A4.3 WATER EFFICIENCY AND CONSERVATION

### SECTION A4.304 OUTDOOR WATER USE

~~**A4.304.1 Low-water consumption irrigation system.** Install a low-water consumption irrigation system which minimizes the use of spray type heads. Spray type irrigation may only be used at turf areas. The remaining irrigation systems shall use only the following types of low-volume irrigation systems:~~

- ~~1. Drip irrigation.~~
- ~~2. Bubblers.~~
- ~~3. Drip emitters.~~
- ~~4. Soaker hose.~~
- ~~5. Stream-rotator spray heads.~~
- ~~6. Other systems acceptable to the enforcing agency.~~

~~**A4.304.2 A4.304.1 Rainwater catchment systems.** An approved rainwater catchment system is designed and installed to use rainwater generated by at least 65 percent of the available roof area. Rainwater catchment systems shall be designed and installed in accordance with the *California Plumbing Code*.~~

~~**A4.304.3 Water budget.** When landscaping is provided by the builder, a water budget shall be developed for landscape irrigation use that 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.~~

~~**A4.304.4 Potable water reduction.** When landscaping is provided by the builder, a water efficient landscape irrigation system shall be installed that reduces potable water use. The potable water use reduction shall be calculated beyond the initial requirements for plant installation and establishment. Calculations for the reduction shall be based on the water budget developed pursuant to Section A4.304.3.~~

~~**Tier 1.** Reduce the use of potable water to a quantity that does not exceed 65 percent of ETo times the landscape area.~~

~~**Tier 2.** Reduce the use of potable water to a quantity that does not exceed 60 percent of ETo times the landscape area.~~

~~**Note:** Methods used to comply with this section must be designed to meet the requirements of the other parts of the California Building Standards Code and may include, but are not 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.~~

~~**A4.304.5 A4.304.2 Potable water elimination.** When landscaping is provided by the builder and as allowed by local ordinance, 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 1. Use of captured rainwater.~~

- 4 ~~2~~. Use of recycled water.
- 5 ~~3~~. Water treated for irrigation purposes and conveyed by a water district or public entity.
- 6 ~~4~~. Use of graywater.

~~A4.304.6~~ **A4.304.3 Irrigation metering device.** For new water service connections, landscaped irrigated areas more than 2,500 square feet shall be provided with separate submeters or metering devices for outdoor potable water use.

## APPENDIX A4 RESIDENTIAL VOLUNTARY MEASURES DIVISION A4.6 TIER 1 AND TIER 2

### SECTION A4.601 GENERAL

**A4.601.1 Scope.** (No change to text)

**A4.601.2 Prerequisite measures.** (No change to text)

**A4.601.3 Elective measures.** (No change to text)

**A4.601.4 Tier 1.**

**To achieve Tier 1 status a project must comply with the following:**

**A4.601.4.1 Mandatory measures for Tier 1.** (No change to text)

**A4.601.4.2 Prerequisite and elective measures for Tier 1.** In addition to the mandatory measures, compliance with the following prerequisite and elective measures from Appendix A4 is also required to achieve Tier 1 status:

- 1. From Division A4.1, Planning and Design. (No change to text)
- 2. From Division A4.2, Energy Efficiency. (No change to text)
- 3. From Division A4.3, Water Efficiency and Conservation.
  - ~~3.1. Comply with the landscape irrigation water budget requirement in Section A4.304.3.~~
  - ~~3.2. Comply with the Tier 1 potable water use reduction for landscape irrigation design in Section A4.304.4.~~
  - ~~3.3~~ 3.1 Comply with at least two elective measures selected from Division A4.3.
- 4. From Division A4.4, Material Conservation and Resource Efficiency. (No change to text)
- 5. From Division A4.5, Environmental Quality. (No change to text)

**A4.601.5 Tier 2.** To achieve Tier 2 status a project must comply with the following.

**Note:** (No change to text)

**A4.601.5.1 Mandatory measures for Tier 2.** (No change to text)

**A4.601.5.2 Prerequisite and elective measures for Tier 2.** In addition to the mandatory measures, compliance with the following prerequisite and elective measures from Appendix A4 is also required to achieve Tier 2 status:

- 1. From Division A4.1, Planning and Design. (No change to text)
- 2. From Division A4.2, Energy Efficiency. (No change to text)
- 3. From Division A4.3, Water Efficiency and Conservation.
  - ~~3.1. Comply with the landscape irrigation water budget requirement in Section A4.304.3.~~
  - ~~3.2. Comply with the Tier 2 potable water use reduction for landscape irrigation design in Section A4.304.4.~~
  - ~~3.3~~ 3.1 Comply with at least three elective measures selected from Division A4.3.
- 4. From Division A4.4, Material Conservation and Resource Efficiency. (No change to text)
- 5. From Division A4.5, Environmental Quality. (No change to text)

**RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST  
(APPENDIX A4, SECTION A4.602)**

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency <input type="checkbox"/> All	Installer or Designer <input type="checkbox"/> All	Third party <input type="checkbox"/> All
		Tier 1	Tier 2			
<b>WATER EFFICIENCY AND CONSERVATION</b>						
<b>Outdoor water Use</b>						
<b>4.304.1</b> When landscaping is provided, a water budget (calculations) shall be developed for landscape irrigation use that conforms to the local water efficient landscape ordinance or to the California Department of Water Resources Model Water Efficient Landscape Ordinance, whichever is more stringent.  <u>Applies to landscaped areas for buildings for which building permits have been submitted on or after June 1, 2015 until future revision of the MWELO by Dept. of Water Resources (DWR).</u>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.304.4</b> <b>4.304.2</b> Automatic irrigation systems controllers installed at the time of final inspection shall be weather or soil moisture-based.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.304.1</b> Install a low water consumption irrigation system which minimizes the use of spray type heads.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.304.2</b> <b>A4.304.1</b> A rainwater capture, storage and re-use system is designed and installed		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.304.3</b> A water budget shall be developed for landscape irrigation.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.304.4</b> Provide water efficient landscape irrigation design that reduces the use of potable water. Tier 1. Does not exceed 65 percent of ETo times the landscape area. Tier 2. Does not exceed 60 percent of ETo times the landscape area.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.304.5</b> <b>A4.304.2</b> A landscape design is installed which does not utilize potable water.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A304.6</b> <b>A4.304.3</b> For new water service connections, landscaped irrigated areas more than 2,500 square feet shall be provided with separate submeters or metering devices for outdoor potable water use.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## DIVISION OF THE STATE ARCHITECT (DSASS) EF-01-15 - EMERGENCY EXPRESS TERMS

### CHAPTER 1 ADMINISTRATION

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### SECTION 105 DIVISION OF THE STATE ARCHITECT

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**105.1.1 Application - Public elementary and secondary schools and community colleges.** New building construction, alterations and additions and related site work on a new or existing site.

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### CHAPTER 2 DEFINITIONS

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### SECTION 202 GENERAL

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**EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF). [DSA]** For the purposes of this Part, ETAF means a factor of 0.65 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.

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

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

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**MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWEL0)** 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 MWEL0 regulation establishes a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects.

...

**REFERENCE EVAPOTRANSPIRATION (ET<sub>o</sub>).** 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 [KI] and Reference Evapotranspiration (ET<sub>o</sub>).

**SPECIAL LANDSCAPE AREA (SLA). [DSA]** 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 0.35.

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### CHAPTER 3 GREEN BUILDING

**3.01.1 Scope.** Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

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**301.4 Public schools and community colleges. [DSA]** Newly constructed buildings and facilities on new or existing sites shall comply with Chapter 5. Alterations of or additions to existing buildings shall only be required to comply with Chapter 5, Section 5.304.

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CHAPTER 5 - NON-RESIDENTIAL 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.

**EVAPOTRANSPIRATION 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 Outdoor potable water use in landscape areas 2,500 square feet or greater. [DSA]** When potable 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 0.65 and an additional water allowance for special landscape areas (SLA) of 0.35.
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 0.65 and an additional water allowance for special landscape areas (SLA) of 0.35.

**Note:** The MWELo prescriptive measures to assist in compliance with the water budget are listed in Sections 492.4 through 492.8, 492.10 and 492.11 of the MWELo, which may be found at: <http://www.water.ca.gov/wateruseefficiency/docs/WaterOrdSec492.cfm>.

**5.304.2 Alternate methods to reduce outdoor potable water use in landscape areas. [DSA]** As allowed by a district's local city or county water or health agency, methods to reduce potable water use in landscape areas shall be permitted to include but are not limited to:

1. Use of captured rainwater, recycled water, or graywater designed per the *California Plumbing Code*.
  - a. Supplementary water supply: The use of potable water shall only be permitted as a back-up water supply for on-site water reuse systems.

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.** 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 Irrigation 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 Controllers.** 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 Outdoor 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 water use.

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Notation

Authority: Education Code Sections 17280—17317 and 81130--81147.

Reference(s): Education Code Sections 17310 and 81142.

