

**15-DAY EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE 2013 CALIFORNIA GREEN BUILDING STANDARDS CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11
(OUTDOOR POTABLE WATER USE REDUCTION STANDARDS)
(HCD EF 01-15)**

The Department of Housing and Community Development (HCD) proposes to make necessary changes to be included in the 2013 edition of the California Green Building Standards Code (CGBC), also known as CALGreen, as presented on the following pages:

1. **Existing California text or language being modified:** All language is shown in normal Arial 9 point; modified language is underlined or shown in ~~strikeout~~.
2. **Existing text not being modified:** All language not displayed in full is shown as “...” (i.e., ellipsis).
3. **Repealed text:** All language appears in ~~strikeout~~.
4. **Amended, adopted or repealed language after public hearing:** All language is shown in double underline or ~~double-strikeout~~.
5. **Notation:** Authority and Reference citations are provided at the end of each section.

SUMMARY OF REGULATORY ACTION

HCD PROPOSES TO:

- Adopt new California Amendments into the 2013 California Green Building Standards Code.
- Amend existing 2013 California Amendments adopted as emergency regulations on May 29, 2015 and October 21, 2015, to accommodate changes resulting from adoption of a revised Model Water Efficient Landscape Ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7, Section 490 et seq.) by the California Department of Water Resources.

1. HCD proposes to amend Chapter 2, Definitions, as follows:

CHAPTER 2 DEFINITIONS

~~**ET ADJUSTMENT FACTOR (ETAF).** A factor that, when applied to reference evapotranspiration (ETo), adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.~~

Rationale for Change:

HCD proposes to repeal the above referenced definition. This definition is no longer needed because the term will no longer be used in CALGreen, Divisions 4.3 or A4.3. There is no reason for unused terms to be defined.

For the 45-day comment period (September 11 through October 26, 2015), HCD proposed to adopt the above referenced definition. The ETAF was referenced in the proposed new Section 4.304.1, and was a technical term that was specifically used when calculating the required water budget proposed in Section 4.304.1. However, subsequent to comments received during the California Building Standards Commission (CBSC) meeting (held on May 29, 2015, meetings convened by the Department of Water Resources related to their Model Water Efficient Landscaping Ordinance (MWELO)), and the 45-Day comment period, and after further review, HCD further amended Section 4.304.1. The new amendment refers to MWELO, instead of specifying how to calculate the water budget. Therefore, the term ETAF is no longer needed in Section 4.304.1.

~~**LANDSCAPE WATER METER.** An inline device installed at the irrigation supply point that measures the flow of water into the irrigation system and is connected to a totalizer to record water use.~~

Rationale for Change:

HCD proposes to adopt the above referenced definition. The term “landscape water meter” is proposed to be used in Section A4.304.3, and is currently not defined in CALGreen. The newly proposed definition is consistent with the definition used within MWELO’s irrigation design plan requirements.

~~**REFERENCE EVAPOTRANSPIRATION (ETo).** [HCD] Evapotranspiration is the loss of water to the atmosphere by the combined processes of evaporation (from soil and plant surfaces) and transpiration (from plant tissues). It is an indicator of how much water crops, lawn, garden, and trees need for healthy growth and productivity. Reference evapotranspiration (ETo) is the industry standard for determining irrigation requirements. ETo is an estimate of the evapotranspiration of a large field of four to seven inch tall, cool season grass that is well watered.~~

Rationale for Change:

HCD proposes to repeal the above referenced definition. This existing definition is no longer needed because the term will no longer be used in CALGreen, Divisions 4.3 or A4.3. Currently the term “Reference Evapotranspiration (ETo)” is used in Section A4.304.4. However, for the 15-Day public comment period, HCD proposes to repeal this section, and the term “ETo” will no longer be used in CALGreen. There is no reason for unused terms to be defined.

NOTE:

Authority cited: Health and Safety Code Sections 17921, 17922 and 19990. Reference: Health and Safety Code Sections 17000 through 17060, 17910 through 17990 and 19960 through 19997.

2. HCD proposes to amend Chapter 4, Division 4.3 Water Efficiency and Conservation, as follows:

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 Outdoor potable water use in landscape areas. After December 1, 2015, new residential developments with an aggregate landscape area equal to or greater than 500 square feet shall comply with one of the following options:~~

- ~~1. A local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent, or~~
- ~~2. Projects with aggregate landscape areas less than 2500 square feet may comply with the MWELO's Appendix D Prescriptive Compliance Option.~~

Notes:

- ~~1. The Model Water Efficient Landscape Ordinance (MWELO) and supporting documents are available at: <http://www.water.ca.gov/wateruseefficiency/landscapeordinance/>~~
- ~~2. A water budget calculator is available at: <http://www.water.ca.gov/wateruseefficiency/landscapeordinance/>~~

Rationale for Change:

Subsection 4.304.1 provided a starting compliance date of June 1, 2015, which applied to the DWRs' MWELO as it existed on that date. DWR has since updated the MWELO, and a revised version, dated July 9, 2015 (effective December 1, 2015) has been approved by the California Water Commission and codified in the California Code of Regulations, Title 23. Due to the update to the MWELO, HCD proposes to further amend this section by referring to the updated MWELO and the revised effective date of December 1, 2015. HCD also proposes to amend the language to reflect scoping changes in the updated MWELO, and to specify that MWELO applies to new residential developments with an aggregate landscape area equal to or greater than 500 square feet.

Items 1 and 2 included specific evapotranspiration adjustment factors (ETAF) for purposes of determining the project's water budget Maximum Applied Water Allowance (MAWA) which were adopted as emergency building standards on May 29, 2015. However, due to the significant and comprehensive changes in the updated MWELO HCD now proposes to provide a direct reference to MWELO for compliance purposes, rather than duplicating the selected requirements of MWELO. This reinforces a statewide standard adopted by DWR and still allows more restrictive standards to be adopted by local enforcing agencies, if desired. Additionally, HCD has further amended this section to reference an alternate method of compliance found in MWELO, Appendix D, and revised the notes to provide pointers to resources such as the website for MWELO and supporting references, and web address of a water budget calculator on California Department of Water Resources' website.

~~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:~~

- ~~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.~~

Rationale for Change:

Subsection 4.304.1.1, Items 1 and 2, as proposed for the 45-day comment period, do not appear to be regulatory text or contain any mandate. They provide a reference to other methods to reduce potable water use; however, the use of captured gray water, rainwater and recycled water are recognized by MWEL0 as "Special Landscape Areas" for purposes of calculating water budgets. HCD proposes to repeal Section 4.304.1.1, since the methods mentioned in this section are addressed by the revised MWEL0.

~~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.~~

Rationale for Change:

Subsection 4.304.1.2 references language from existing regulations adopted by the State Water Resources Control Board (California Code of Regulations, Title 23, Division 3, Article 22.5, Section 864) regarding the use of potable water "... where necessary to address an immediate health and safety need or to comply with a specific term or condition in a permit issued by a state or federal agency." HCD proposes to repeal this section, as it restates a regulatory provision addressed by the State Water Resources Control Board regarding prohibited activities for water conservation.

~~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.~~

Rationale for Change:

Subsection 4.304.2 was proposed as a renumbering of an existing CALGreen requirement for irrigation controllers to be either weather or soil-moisture based. However, MWEL0 now includes additional mandates for irrigation controllers to have non-volatile memory, be self-adjusting, located with diagrams of irrigation plans, regulate irrigation schedules, and allow connection to flow sensors (when applicable). HCD proposes to repeal Section 4.304.2 due to the numerous requirements for irrigation controllers in the revised MWEL0. This will avoid duplicative and incomplete references.

NOTE:

Authority cited: Health and Safety Code Sections 17921, 17922 and 19990. Reference: Health and Safety Code Sections 17000 through 17060, 17910 through 17990 and 19960 through 19997.

3. HCD proposes to amend Appendix A4, Division A4.3 Water Efficiency and Conservation, Section A4.304.3 as follows:

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

SECTION A4.304 OUTDOOR WATER USE

~~A4.304.6~~ A4.304.3 Irrigation metering device Landscape water meters. For new water service connections, landscaped irrigated areas ~~more than 2,500~~ less than 5,000 square feet shall be provided with separate submeters or metering devices for outdoor potable water use.

Rationale for Change:

HCD proposes to amend the above referenced section. HCD proposes to replace the term "Irrigation metering device" with "landscape water meters," as used within the revised MWELO's irrigation design plan requirements.

HCD also proposes to clarify that the voluntary requirements for landscape water meters apply to landscape areas less than 5,000 square feet. The current voluntary measure for irrigation metering device applies to irrigated landscapes of more than 2,500 square feet; MWELO and the Water Code require submeters for irrigated residential landscapes of 5,000 square feet or greater. For consistency with MWELO and the Water Code, HCD believes that it is logical to clarify the scoping of CALGreen's voluntary measure to address areas less than 5,000 square feet.

NOTE:

Authority cited: Health and Safety Code Sections 17921, 17922 and 19990. Reference: Health and Safety Code Sections 17000 through 17060, 17910 through 17990 and 19960 through 19997.

4. HCD proposes to amend the Residential Occupancies Application Checklist as follows:

(See Next Page)

**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 ¹		Enforcing Agency <input type="checkbox"/> All	Installer or Designer <input type="checkbox"/> All	Third party <input type="checkbox"/> All
		Tier 1	Tier 2			
WATER EFFICIENCY AND CONSERVATION						
Outdoor water Use						
4.304.1 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. 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).	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>4.304.1</u> After December 1, 2015, new residential developments with an aggregate landscape area equal to or greater than 500 square feet shall comply with one of the following options: 1. A local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent, or 2. Projects with aggregate landscape areas less than 2500 square feet may comply with the MWELO's Appendix D Prescriptive Compliance Option.	<input checked="" type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
4.304.1 4.304.2 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"/>
A304.6 <u>A4.304.3</u> For new water service connections, landscaped irrigated areas more than 2,500 less than 5,000 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"/>

Rationale for Change:

HCD proposes to amend the above referenced checklist in order to align with the amendments proposed to other sections in the 15-day Express Terms.