EXPRESS TERMS

FOR

PROPOSED EMERGENCY 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)

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:

LEGEND FOR EXPRESS TERMS:

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 **Repealed text:** All language appears in strikeout.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 **Amended, adopted or repealed language after public hearing:** All language is shown in double underline or double-strikeout.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 2013 California Amendments on an emergency basis into the 2013 California Green Building Standards Code.

➢ Amend existing 2013 California Amendments on an emergency basis to accommodate changes resulting from adoption of mandatory measures in the 2013 California Green Building Standards Code.

➢ Repeal existing 2013 California Amendments on an emergency basis to accommodate changes resulting from adoption of mandatory measures in the 2013 California Green Building Standards Code.

1. HCD proposes new California amendments in Chapter 2, Definitions, for adoption into the 2013 California Green Building Code 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.

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

~~**LANDSCAPE (PLANT) COEFFICIENT** *(Kl).* The product of the species factor multiplied by the density factor and the microclimate factor. (Kl = K~~ s ~~× K~~ d ~~× K~~ mc ~~) The landscape coefficient is used in the landscape water budget calculation. (UCCE, 2000)~~

2. HCD proposes new amendments in Chapter 4, Division 4.3 Water Efficiency and Conservation, for adoption into the 2013 California Green Building Code 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]*

4.304.1.1 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.

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.

3. HCD proposes new amendments to Appendix A4, Division A4.3 Water Efficiency and Conservation, for adoption into the 2013 California Green Building Code as follows:

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 the 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~~ <u>A4.304.3</u> 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.

4. HCD proposes new amendments to Appendix A4, Division A4.6 Tier 1 and Tier 2, for adoption into the 2013 California Green Building Code as follows:

**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~~ <u>3.1</u> 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)

5. HCD proposes new amendments to the Residential Occupancies Application Checklist for adoption into the 2013 California Green Building Code as follows:

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 ☐ All	Installer or Designer ☐ All	Third party ☐ 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).	☒			☐	☐	☐
~~4.304.1~~ **4.304.2** Automatic irrigation systems controllers installed at the time of final inspection shall be weather or soil moisture-based.	☒			☐	☐	☐
~~A4.304.1 Install a low-water consumption irrigation system which minimizes the use of spray type heads.~~	~~☐~~	~~☐~~	~~☐~~	~~☐~~	~~☐~~
~~A4.304.2~~ **A4.304.1** A rainwater capture, storage and re-use system is designed and installed		☐	☐	☐	☐	☐
~~A4.304.3 A water budget shall be developed for landscape irrigation.~~		☒[2]	☒[2]	~~☐~~	~~☐~~	~~☐~~
~~A4.304.4 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.~~		☒[2]	☒[2]	~~☐~~	~~☐~~	~~☐~~
~~A4.304.5~~ **A4.304.2** A landscape design is installed which does not utilize potable water.		☐	☐	☐	☐	☐
~~A304.6~~ **A4.304.3** 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.		☐	☐	☐	☐	☐