

# 2016 REPORT TO THE LEGISLATURE

## Status of the California Green Building Standards Code



**State Department of Housing and  
Community Development**

**September 2016**

# A Report on: **CALGreen**<sup>®</sup>

## The California Green Building Standards Code

This report provides the California State Legislature information on updates proposed to the California Green Building Standards Code and related activities conducted by the Department of Housing and Community Development during the fiscal year 2015-2016, which ended on June 30, 2016.



*Above: Drought-tolerant landscape at multifamily development in West Sacramento, California (Photo credit: HCD)  
Cover: Drought-tolerant landscape multifamily development in Sacramento, California (Photo credit: HCD)*



### State of California

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*Drought-tolerant landscape at single-family development in Rancho Cordova, California  
(Photo credit: HCD)*

## Acronyms

CALGreen	California Green Building Standards Code
CBSC	California Building Standards Commission
HCD	California Department of Housing and Community Development
LEED	Leadership in Energy and Environmental Design
MWEL	Model Water Efficient Landscape Ordinance
SHL	State Housing Law



*Drought-tolerant landscape at multifamily development in West Sacramento, California  
(Photo credit: HCD)*

## **Preface**

The following report is prepared in accordance with Health and Safety Code (HSC) Section 17928(b), which requires the California Department of Housing and Community Development (HCD) to submit a report to each house of the California State Legislature no later than September 1 of each year. HSC Section 17928 has been reprinted below for reference and convenience. The following items indicate the specific topic areas discussed in this report:

1. Green building measures proposed as building standards during the prior fiscal year; and
2. Green building guidelines or resources reviewed during the development of green building measures proposed as building standards during the prior fiscal year.

### **Health and Safety Code Section 17928**

17928. (a)(1) The Department of Housing and Community Development shall, for building standards submitted to the California Building Standards Commission for adoption in the 2010 California Building Code or later, do all the following:

(A) Review relevant green building guidelines as deemed necessary by the department when preparing proposed building standards for submittal.

(B) Consider proposing as mandatory building standards those green building features determined by the department to be cost effective and feasible to promote greener construction.

(2) Nothing in this subdivision shall be construed to supplant or otherwise change the existing process for approval and adoption of building standards through the California Building Standards Commission.

(b)(1) The department shall also summarize in a report to the Legislature no later than September 1 of each year, both of the following:

(A) Green building features proposed as building standards during the prior fiscal year.

(B) Green building guidelines reviewed pursuant to subdivision (a) during the prior fiscal year.

(2) For those items required by this subdivision already included in other reports provided to the Legislature or generally available, the department may fulfill this requirement by citing where that information can be found.

**Note:** The 2013 and 2016 California Green Building Standards Code (CALGreen) including updates, the 2016 current rulemaking documents, and the current and previous CALGreen reports can be viewed on HCD's website at <http://www.hcd.ca.gov>.

Hard copies are available upon request. Please contact the HCD State Housing Law Program Staff with any questions at (916) 445-9471.

HCD reviewed the following green building guidelines, programs and resources related to proposed building standards over the past fiscal year:

- Collaborative for High Performance Schools (CHPS)
- U.S. Green Building Council – Leadership in Energy and Environmental Design (LEED)
- Build it Green – GreenPoint Rated Program
- Green Building Initiative – Green Globes Program
- ANSI/ASHRAE Standard 189.1 – 2014 “Standard for the Design of High-Performance Green Buildings”
- ANSI/ASHRAE Standard 62.2 – 2013 “Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings”
- 2012 ICC 700, National Green Building Standard
- 2015 International Green Construction Code (IgCC)
- IAPMO 2015 Green Plumbing and Mechanical Code Supplement
- NSF/ANSI Standard 350: “On-site Residential and Commercial Water Reuse Treatment Systems”
- NSF/ANSI Standard 350-1: “On-site Residential and Commercial Graywater Treatment Systems for Subsurface Discharge”
- Chapter 476, Statutes of 2011 (AB 341) Report to the Legislature: CalRecycle’s 75% Initiative, CalRecycle, August 2015.

HCD uses an open public process when developing consequential changes to the CALGreen Code. Public focus group meetings gather stakeholder input regarding proposed building standards. Relevant State agencies, concerned stakeholder groups and others commonly participate including these listed below.

- Building officials
- Design professionals
- Representatives from the construction industry
- Representatives from building product manufacturers
- Representatives from model code writing bodies
- Representatives from the environmental community
- Federal and State agency representatives
- Interested individuals
- Public utility representatives
- Representatives from the disabled access community

## **Introduction**

CALGreen – the nation's first state-mandated green building code -- has been in effect since January 1, 2011. As noted in Background and History, CALGreen is written as a building standards code with both mandatory and voluntary measures. CALGreen provides for environmentally responsible and resource-efficient activities, from new building design and sustainable construction to full operational use for the built environment.

The California Department of Housing and Community Development (HCD) continues to improve the CALGreen Code by looking at new technologies to complement current building practices that aid in conservation and reduce overall ecological impacts.

As a regulation, changes to CALGreen entail detailed evaluation, analysis of alternatives and proposed changes, historical knowledge of the code, and information on new developments in sustainable building, related standards, and other codes. Sound rationale must accompany all proposed changes.

As green building practices become more routine, technology changes, and the public becomes more aware of additional benefits of sustainable building, CALGreen needs to be continuously evaluated to ensure its validity and that it is feasible for the public to take advantage of sustainable building measures in order to improve both indoor and outdoor environments for current and future Californians.

Because CALGreen is an evolving code and new technologies and methods will continue to evolve in the building industry, continued training will be necessary to ensure that an up-to-date knowledge base is established and maintained in the industry and HCD.

## Background and History

California -- a longtime leader in green and sustainable building practices -- developed the California Green Building Standards Code (CALGreen) in order to improve public health, safety and general welfare by enhancing the design and construction of buildings. By using building concepts that reduce negative environmental impacts and/or increase positive impacts, CALGreen encourages sustainable construction practices through:

- Planning and design
- Energy efficiency
- Water efficiency and conservation
- Material conservation and resource efficiency
- Environmental quality



*Electric-vehicle charging station at in West Sacramento, California (Photo credit: HCD)*

### **2008: Enacted as a Voluntary Code**

The 2008 CALGreen Code (California Code of Regulations, Title 24, Part 11), approved by the California Building Standards Commission (CBSC) in January 2008, took effect in August 2009. This first edition CALGreen was initially a voluntary code authorized by the Department of Housing and Community Development (HCD).

### **No Fees**

Unlike some rating systems, such as Leadership in Energy and Environmental Design (LEED) or the Green Globes system, that have additional licensing, certification, rating and/or verification costs, there are no fees required to use the CALGreen Code.

## Enforcement

The CALGreen Code – like other building codes -- is enforced by existing, local enforcement agencies.



*Drought-tolerant landscape at multifamily development in West Sacramento, California  
(Photo credit: HCD)*

## Updates to 2008 CALGreen Code

*2010 CALGreen becomes the nation's first, state-mandated green building code*

HCD updated the original 2008 CALGreen Code in the 2009-2010 fiscal year (during the 2009 Triennial Code Adoption Cycle) through a process that involved soliciting public input, reviewing and analyzing necessary changes; for example, changes that allow users to more-easily distinguish between low-rise residential provisions and nonresidential provisions. Most noteworthy, however, was an update – proposed by HCD -- to establish "mandatory minimum requirements." Whereas the Code was originally *voluntary* unless adopted as a mandatory requirement by a local enforcement agency, the 2010 CALGreen became the **nation's first state-mandated green building code**. Subsequently, the mandatory provisions of CALGreen were listed in the California Air Resources Board (ARB) scoping plan as one of the tools to implement the California Global Warming Solutions Act of 2006, Chapter 488, Statutes of 2006 (AB 32).

This scoping plan contains additional guidance encouraging local jurisdictions to go above and beyond the mandatory minimum requirements.

Also in the 2009-2010 updates, a tier system was added to the Code to give local enforcing agencies the ability to adopt consistent and streamlined methods for green building construction above and beyond the mandatory minimum requirements. The tier system – a voluntary portion of the CALGreen Code -- will become increasingly popular in more-progressive jurisdictions that wish to further reduce greenhouse gas emissions and promote even more-sustainable construction practices.

## **Updates to 2010 CALGreen Code**

### *2013 CALGreen expands scope to include all residential buildings*

In the 2011-2012 fiscal year, HCD updated the 2010 CALGreen Code (during the 2012 Triennial Code Adoption Cycle), conducting a comprehensive evaluation for mandatory and voluntary updates before expanding the scope of CALGreen to include all residential buildings, rather than only low-rise residential buildings (three stories or less). HCD also expanded the scope to include additions and alterations that increase the building's conditioned area, volume or size. This requirement now captures many additions and alterations to existing buildings thereby increasing the effectiveness of the CALGreen Code in implementing enforceable sustainable building standards that have a positive impact on the environment.

## **Updates to 2013 CALGreen Code**

### *California drought results in emergency amendments to 2013 CALGreen*

During the 2015-2016 fiscal year, HCD proposed emergency amendments to the 2013 CALGreen Code. Facing historic drought conditions, the State of California and HCD were charged to look for additional ways to further reduce the use of potable water. Continuing action upon directives to conserve California's water resources were deemed essential by the Governor's Executive Order B-29-15, issued on April 1, 2015. In coordination with other State agencies, HCD proposed the emergency adoption of building standards requiring a water budget for landscape irrigation that conforms to the local, water-efficient landscape ordinance, or to the California Department of Water Resources' (DWR) Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. HCD's emergency provisions in CALGreen also included a modification to the formula for calculating water use for residential landscaped areas, thereby reducing even further the allowable use of potable water for landscaped areas beyond the MWELO requirements.

## **HCD Accomplishments (2015-2016)**

### **Continuing to Adapt to Address California's Historic Drought**

HCD submitted proposed emergency building standards for the 2013 California Plumbing Code and the CALGreen Code, designed to reduce the fixture flow rates for residential lavatory faucets and wall-mounted urinals and to align with the California Energy Commission's Appliance Efficiency Regulations, which were adopted on January 1, 2015. These emergency building standards were approved by the California Building Standards Commission (CBSC) on October 21, 2015.

HCD is working with CBSC staff, in consultation with DWR, State Water Resources Control Board (SWRCB), stakeholders and interested parties, to research, evaluate, and develop mandatory building standards for recycled water infrastructure for new single-family and multifamily dwellings by July 1, 2018, pursuant to [Chapter 606, Statutes of 2014 \(AB 2282\)](#).

### **Adoption of the 2016 CALGreen Code (Approved by CBSC on January 20, 2016)**

State Housing Law Program (SHL) Staff developed 2016 CALGreen proposals in consultation with local agencies, environmental stakeholders and interested individuals. During the 2015 Triennial Code Adoption Cycle, new or changed provisions to the 2016 CALGreen included:

- Increased construction waste diversion rate from 50% to 65%. This amendment will help further reduce greenhouse gasses generated by landfills.
- Simplified and incentivized calculation of recycled content for worksite construction materials. This amendment makes compliance with recycled content easier to achieve while still promoting the use of materials with recycled content.
- Adopted former emergency measures for outdoor irrigation and indoor plumbing fixtures. This change carries forward the measures adopted by emergency in 2015.
- Required recycling areas for occupants. This new requirement mandates the design and installation of space for recycling in multifamily buildings.
- Added a new elective measure for hot water recirculation systems. This measure encourages a method to reduce the waste of potable water.



*Debris box for site separation of construction waste in Rancho Cordova, California (Photo credit: HCD)*

## **List of Activities**

### **Ongoing Code Development Work during 2015-2016 Fiscal Year**

HCD continued to evaluate and research possible amendments to CALGreen for the 2016 Intervening Code Adoption Cycle based on enacted legislation, executive orders, new technology, completed studies and stakeholder input. HCD also continued efforts to provide educational outreach to stakeholders and provide assistance to code users throughout the State.

#### **2015**

- On July 14-16, State Housing Law Program staff participated in the California Building Standards Commission Code Advisory Committee Meetings for accessibility, including the Division of State Architect's proposed changes to California Building Code Chapter 11B and specifically related to electric vehicle charging provisions.
- On July 15, State Housing Law Program staff attended the California Water Commission meeting regarding consideration of proposed changes in the CALGreen-referenced Model Water Efficient Landscape Ordinance (MWELO) that have direct impact on residential construction and the Code. The revised MWELO was approved.
- On July 23, State Housing Law Program staff attended a presentation "Saving Energy and Saving Water in New Homes" by Pacific Gas and Electric for Compact Domestic Hot Water distribution regarding indoor efficiency for hot-water delivery to household points of use.

- On July 28, SHL Staff participated in a California Energy Commission workshop on flow-rate efficiencies for residential lavatory faucets and shower heads.
- On August 5, SHL Staff attended the Joint Agency Symposium for the Governor's 2030 Greenhouse Gas Reduction Goals in an interagency discussion of Strategies to Secure and Enhance Carbon Storage on Natural and Working Lands to meet Governor Brown's goals.
- On August 5, SHL Staff attended a coordination meeting with CBSC and DSA for the purposes of coordinating rulemaking documents to make outdoor water reduction provisions in CALGreen permanent.
- On August 11, SHL Staff participated in a webinar conducted by the Department of Water Resources on the revised MWELO.
- On August 24, SHL Staff audited DWR's Independent Technical Panel Meeting discussing outdoor water use and barriers for the landscape professionals and landscape trades.
- On August 25, SHL Staff presented HCD's proposed regulations for the 2016 CALGreen Code to the CBSC's Green Building Code Advisory Committee.
- On September 22, SHL Staff provided featured expertise for a webinar hosted by the Plug-in Electric Vehicle Collaborative on Electric Vehicle Charging. Topics included current code requirements and HCD/CBSC proposed changes during the 2015 Triennial Code Adoption Cycle for CALGreen and the California Electrical Code.
- On October 1-5, SHL Staff attended the International Code Council 2016 Group A Public Comment Hearings in Long Beach. These code hearings focused on administrative, structural, building, green standards, and energy requirements and other proposals for the 2018 model codes.
- On October 1, HCD Staff attended the opening Air Resources Board's 2030 Draft Scoping Plan Update for energy-efficient green buildings. ([http://www.arb.ca.gov/cc/scopingplan/resolution\\_14-16.pdf](http://www.arb.ca.gov/cc/scopingplan/resolution_14-16.pdf))
- On October 14, SHL Staff attended a workshop on Compact DHW by Pacific Gas and Electric for hot water distribution regarding indoor efficiency of hot-water delivery to household points of use.
- On October 21, SHL Staff participated at the CBSC Code Advisory Committee Meetings for re-adoption of outdoor MWELO outdoor water efficiency standards and new adoption of CALGreen indoor appliance efficiency amendments, aligning with adopted California Energy Commission regulations.
- On November 6, SHL and CBSC Staff conducted interagency discussion regarding residential and non-residential MWELO, coordinating draft regulations and proposed language for public comments.
- On November 9, HCD Staff facilitated the opening steering committee meeting for Visitability and Universal Design (UD). The proposal, announced by Business, Consumer Services and Housing Agency, proposed voluntary requirements for aging-in-place design preparations in new residential construction that will preserve resources and reduce future costs of alterations. HCD conducted subsequent steering committee meetings and multiple teleconferences on the plans and details for this proposal. UD draft regulations have been developed with stakeholder groups and are in consideration for future rulemaking.

- On November 16, SHL and CBSC Staff initiated a 15-day public comment period regarding proposed regulations for residential and non-residential MWEL0.
- On November 19, HCD Staff presented Department updated rules and rulemaking for the built environment for Sacramento Valley Association of Building Officials and the Nor-Cal Permit Techs.
- On November 24, SHL and HCD attended the first Interagency Working Group to the Air Resources Board's 2030 Draft Scoping Plan Update for energy-efficient green buildings.
- On December 4, SHL Staff submitted comments on “Zero Net Energy” and the ARB proposed Green Building and Energy Efficiency draft measures for the ARB’s 2030 Scoping Plan and year 2030 target efficiencies.
- On December 4, SHL Staff submitted final Triennial Code proposals of rulemaking packages for the 2016 CALGreen Code to the CBSC.
- On December 9, SHL Staff attended the California Energy Commission's Appliance Efficiency Regulations hearing addressing appliance efficiency and water fixture flow rates for lavatory faucets and wall-mounted urinals.
- On December 10, SHL Staff met with CBSC staff regarding AB 2282 municipal recycled water strategies.
- On December 15, SHL and HCD staff attended the second Interagency Working Group to the Air Resources Board’s 2030 Draft Scoping Plan Update for energy-efficient green buildings.
- On December 15, SHL Staff participated in a public workshop hosted by CalRecycle to focus on state investment and partnerships needed to achieve California’s 75% recycling goal and to look for sustainable funding sources.
- On December 16, SHL Staff attended the CBSC hearing regarding the 2015 Triennial Code Adoption, including green standards references from the 2016 California Building and Residential Codes.



*Recycled water for use in landscape irrigation (Photo credit: HCD)*

## **2016**

- On January 12, HCD Staff attended ARB's 2030 Draft Scoping Plan Update for energy-efficient green buildings.
- On January 19-20, CBSC approved HCD's Green Standards Code amendments for the 2016 Triennial Code Cycle (EXHIBIT A). CBSC also certified compliance and approval of permanent emergency building standards for MWEL0 and reduced flow rates for urinals and lavatory faucets in the 2013 CALGreen and 2013 CPC (EXHIBITS B and C).
- On January 29, SHL, CBSC and DWR conducted a strategy meeting to discuss AB 2282 Recycled Water Systems rulemaking and regulations.
- On February 2, SHL Staff attended a Visitability Task Group meeting in discussion of proposed requirements for aging-in-place design preparations in new residential construction.
- On February 3, SHL Staff attended a Universal Design Reinforcement Task Group meeting in discussion of proposed requirements for aging-in-place design preparations in new residential construction.
- On February 8, SHL Staff participated in a task group teleconference while serving on the national model code technical committee in development of a national water efficiency and sanitation standard, the 2017 Water Efficiency and Sanitation Standard. The conference was focused on Alternate Water Sources.
- On February 9, HCD Staff attended an intergovernmental stakeholder meeting with Assembly Member Gatto regarding AB 1463 and standards related to Onsite Treated Water in residential development and as related to AB 2282.

- On February 12, SHL Staff presented a 2016 codes update training to Sacramento Valley Association of Building Officials membership.
- In February, 2016 SHL Staff conducted emergency review of CALGreen indoor plumbing fixture flow rates to align with California Energy Commission Title 20 Appliance Efficiency Regulations for outdoor landscape irrigation and potable water reduction.
- On March 11, HCD and CBSC Staff met to discuss CALGreen verification guidelines for Tier 1 and Tier 2 CALGreen standards pursuant to AB 341.
- On March 15-17, SHL Staff attended the California Building Official's Annual Business Meeting and delivered presentations on Visitability, Universal Design and Tiny Homes.
- On March 17, HCD Staff met with State Water Resources Control Board Stormwater Management Staff for a briefing on Low Impact Development and low-cost solutions to improve water efficiency in California as they relate to possible mandatory measures for the building codes. Topics included green infrastructure approaches, water recycling, storm water capture, and ground water infiltration.
- On March 18, SHL Staff met with CBSC Staff to continue discussion regarding AB 2282 municipal recycled water rulemaking strategies.
- On March 24, SHL Staff attended seminar for reducing in-home exposure to air pollution.
- On March 29, SHL Staff continued discussions with State Water Resources Control Board regarding March 17 Low Impact Development approaches, recycled water and building codes goals.
- On March 30, SHL Staff participated in a task group teleconference with the Water Efficiency and Sanitation Standard code technical committee. The conference was focused on the development process, committee procedures and balloting for consensus voting.
- On April 5, SHL Staff and managers sent California code revisions to International Code Council for updating the existing 2013 CALGreen Guide to the new 2016 CALGreen Code.
- On April 5-6, SHL Staff attended the first meeting while serving on a national model code technical committee in developing a national water efficiency and sanitation standard, the 2017 Water Efficiency and Sanitation Standard.
- On April 19, SHL Staff and HCD Division of Administration and Management attended the Assembly Budget Hearing to provide background information and answer questions on the 2016-17 CALGreen Budget Change Proposal requesting one additional staff member for CALGreen activities.
- On April 20-27, SHL Staff attended the ICC 2016 Group B Public Comment Hearings in Louisville, Kentucky. These code hearings focused on administrative, structural, building, green standards, and energy requirements and other proposals for the 2018 model codes.
- SHL Staff updated the CALGreen summary updates for 2016 CALGreen, revised from the mandatory requirements, Tier 1, and Tier 2 measures. The summaries are used for dissemination at Green California Summit and Exposition and other training sessions.

- On April 20, SHL Staff attended the Green California Summit and Expo in Sacramento and were featured joint presenters with CBSC Staff at a Pre-Summit session to provide updates on changes to the 2016 CALGreen Code.
- On April 21, SHL Staff attended the Green California Summit and Expo and were featured presenters to give an update on changes to CALGreen during the 2015 Triennial Adoption Cycle for the 2016 Code. This included information on 2013 Intervening changes for Electric Vehicle Charging, and emergency building standards adopted in 2015 for outdoor irrigation and indoor plumbing fixture flow rate reductions in response to the ongoing drought, and changes in 2016 CALGreen.
- On April 22, SHL Staff attended the Green California Summit and Expo and were featured joint presenters with CBSC, Division of State Architects, and California Energy Commission Staff for a concurrent panel to discuss EV charging infrastructure changes in the CALGreen Code in an effort to increase the number of EV's toward the goal of 1.5 million EV's on the road by 2025.
- On May 2, SHL Staff met with CBSC Staff regarding AB 2282 municipal recycled water strategies.
- On May 10, HCD Staff met with Alameda County Chief Assistant District Attorney regarding the Berkley balcony collapse incident that occurred on June 16, 2015, killing six and injuring seven U.C. Berkeley students.
- On May 23, SHL Staff participated in the Sustainable Silicon Valley's Spring Water Symposium.
- On June 10, HCD Staff participated in the 2016 Tri-Chapter Annual Meeting of East Bay, Monterey Bay and Peninsula International Code Council Chapters to present information on California code changes for the 2016 Building Standards Code, as well as information on codes and standards relative to tiny homes.
- On June 13, HCD Staff participated in a teleconference conducted by CA Office of Emergency Services about the Statewide Drought Meeting. Topics covered highlights from previous Operational Period, significant drought activities and program updates, and regional status reports.
- On June 14, HCD and CBSC Staff conducted the first stakeholder group meeting on code proposals related to AB 2282 municipal recycled water systems.
- HCD is in the midst of the 2016 Intervening Code Adoption Cycle that will continue the research, evaluation, and development of new prescriptions and consign the value of the 2016 CALGreen Code. The new rules have an effective date of July 1, 2018.

## Future Actions and Activities

During the 2016-2017 fiscal year, HCD anticipates the following continuing actions and new activities:

- Continue participation in the technical committee for a national water-efficiency and sanitation standard called WE•Stand. The International Association of Plumbing and Mechanical Officials (IAPMO) intends to publish the standard in December 2017.
- Continue activities to investigate, identify, and propose new building standards for the installation of recycled water systems in newly constructed single-family residential and multifamily residential buildings. AB 2282 directs HCD to research and develop requirements where municipal recycled water systems exist and are planned. Research will lead to measures proposed for adoption during the 2016 Intervening Code Adoption Cycle for an effective date of July 1, 2018. These activities are conducted with stakeholder groups in partnership with California Building Standards Commission and in consultation with Department of Water Resources and State Water Resources Control Board.
- Evaluate and propose necessary amendments to CALGreen for the 2016 Intervening Code Adoption Cycle based on enacted legislation, executive orders, new technology, completed studies and stakeholder input.
- Continue outreach and education to the general public, local enforcing agencies, industry professionals, and other stakeholders throughout the State.
- Consult with local enforcing agencies to verify implementation and enforcement as well as the successes and challenges of CALGreen as the economy continues to improve and production of single- and multifamily dwellings increases.



*Recycling area for use by building occupants at in South Natomas, California (Photo credit: HCD).*

## Exhibit A

### Summary of Rulemaking Activity

#### DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN) CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11

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##### 1) Rationale for Necessity

The proposed actions continue to adopt, amend or repeal portions of the 2013 CALGreen into the 2016 CALGreen as part of the 2015 Triennial Code Adoption Cycle established by the California Building Standards Commission (CBSC). The intent of the 2016 triennial version of CALGreen is to:

- (1) Continue reducing greenhouse gas (GHG) emissions from buildings.
- (2) Result in environmental benefits through reduced use of energy, water, and raw materials; improved public and building occupant health due to improved indoor air quality; and overall reduction in detrimental environmental impacts.
- (3) Continue the Administration's directive to adopt green building standards for residential, commercial, and public building construction as part of the building code adoption process.

Proposed amendments in this rulemaking are also intended to provide further clarity, specificity and direction to the code user, and to implement and make specific existing state laws. Proposed amendments are a result of recommendations developed during the public participation period prior to submittal to the CBSC. The rationale for each proposed amendment by chapter and section is listed below.

##### **Specific Proposed Regulatory Actions:**

HCD proposes to continue adoption of the 2013 CALGreen with amendments into the 2016 CALGreen. The rationale for each regulatory action is listed below.

**Note:** There is no model code language associated with CALGreen; therefore, all language consists of California text.

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##### 1. CHAPTER 1 ADMINISTRATION

HCD proposes to continue adoption of Chapter 1 from the 2013 CALGreen into the 2016 CALGreen with modifications as follows:

##### **SECTION 101 – GENERAL**

###### **Section: 101.5.1 Building.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. Currently Section 101.5.1 refers to the California Building Code and the California Residential Code as the applicable codes related to construction, alteration, movement, enlargement, replacement, repair, use and occupancy, location, maintenance, removal and demolition of every structure in California. The proposed modification provides an additional reference to the California Existing Building Code, which now includes provisions for existing buildings formerly in the California Building Code. The proposed modification provides clarity to the code user. There is no intended change in regulatory effect.

**Section: 101.7.1 Findings and filings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with nonsubstantive editorial modification. The modification provides the code user with the correct address where the HCD headquarters is now located.

**SECTION 104 – DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT**

**Section: 104.1 Scope.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to replace the term “apartment houses” with “apartments,” as proposed in the 2016 California Building Code (CBC). The term “apartment house” was defined and used last in the 2001 CBC, when the Uniform Building Code was the model code in California. The term “Apartment house” has not been used (except in Chapter 1) in the CBC since 2007, when the International Building Code became the model code. The term currently used in the CBC is “apartment.” The proposed modification provides clarity and consistency with the CBC. There is no intended change in regulatory effect.

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**2. CHAPTER 2  
DEFINITIONS**

HCD proposes to continue adoption of Chapter 2 from the 2013 CALGreen Code into the 2016 CALGreen Code with modifications as follows:

**SECTION 202 – DEFINITIONS**

**DEMAND HOT WATER RECIRCULATION SYSTEM.**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “Demand Recirculation System” is used in Section A4.303.5, which HCD proposes for adoption.

**ELECTRIC VEHICLE (EV) CHARGER.**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “electric vehicle charger” is used in Section 4.106.4, but is not defined. The proposed definition provides clarity to the code user. There is no intended change in regulatory effect.

**ELECTRIC VEHICLE CHARGING SPACE (EV SPACE).**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “electric vehicle charging space” (EV space) is used in HCD’s new proposals in Sections 4.106. 4.2 and A4.106.8.2 (HCD proposes to replace the term “electric vehicle charging station” with the term “EV charging space”) and needs to be defined. (See rationale for Sections 4.106.4.2 and A4.106.8.2.) The proposed definition provides clarity to the code user. There is no intended change in regulatory effect.

**ELECTRIC VEHICLE CHARGING STATION (EVCS).**

**Rationale:** HCD proposes to amend the above referenced definition. The newly proposed language clarifies that the EVCS is an EV charging space with an EV charger (or other charging equipment) installed to serve this space. This proposal is necessary due to HCD’s proposal to replace the term “electric vehicle charging station,” currently used in Sections 4.106.4.2 and A4.106.8.2, with the term “EV charging space.” The proposed definition is also consistent with the definition, proposed by the Division of State Architect (DSA) in Chapter 2 of the California Building Code. (See rationale for “electric vehicle charging space” and Sections 4.106.4.2 and A4.106.8.2.)

**HOT WATER RECIRCULATION SYSTEM.**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “hot water recirculation system” is used in Section A4.303.5, which HCD proposes for adoption.

## **HYBRID URINAL.**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “hybrid urinal” is used in HCD’s new proposal in Section A4.303.4. The proposed definition is consistent with the definition in the IAPMO Guide Criteria (IGC) 311-2014, which is the current standard for hybrid urinals with high-efficiency drain cleansing feature.

## **ORGANIC WASTE.**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “Organic waste” is used in Section 4.410.2, which HCD proposes for adoption. The proposed definition is consistent with the definition in the Public Resources Code, Section 42649.8(c).

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### **3. CHAPTER 4 RESIDENTIAL MANDATORY MEASURES**

HCD proposes to continue adoption of Chapter 4 from the 2013 CALGreen Code into the 2016 CALGreen Code with modifications as follows:

#### ***Division 4.1 – PLANNING AND DESIGN***

#### **SECTION 4.106 – SITE DEVELOPMENT**

##### **Section: 4.106.4.2 New multifamily dwellings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to replace the term “EV charging stations” with “EV charging spaces” since the term “EV charging space” better describes a space available for future installation of EVSE, but with no EV charger installed. The proposed modification in terminology aligns with the terminology used by DSA in Chapter 11B of the California Building Code. (See the definitions of “EV charging space” in Chapter 2 of CALGreen.)

HCD also proposed to repeal the requirement for identification of EVCS on the construction documents. The same requirement is addressed in Section 4.106.4.2.1; there is no reason for the same requirement to be duplicated.

The proposed modifications provide clarity to the code user. There is no intended change in regulatory effect.

- Sections:**
- 4.106.4.2.1 Electric vehicle charging space (EV space) locations.**
  - 4.106.4.2.2 Electric vehicle charging space (EV space) dimensions.**
  - 4.106.4.2.3 Single EV space required.**
  - 4.106.4.2.4 Multiple EV spaces required.**

**Rationale:** HCD proposes to continue adoption of the above referenced sections with modifications. HCD proposes to replace the term “EVCS” with “EV space” or “EV spaces” since the terms better describe a space available for future installation of EVSE, but with no EV charger installed. The proposed modification in terminology aligns with the terminology used by DSA in Chapter 11B of the California Building Code (See the definition of “EV charging space” in Chapter 2.)

The proposed modifications provide clarity to the code user. There is no intended change in regulatory effect.

##### **Section: 4.106.4.2.5 Identification.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification and editorial corrections. HCD proposes to repeal Note 4, and correct the link to the California Manual on Uniform Traffic Control Devices (California MUTCD) in Note 1.

Currently Note 4 refers to the Governor's Office of Planning and Research (OPR) draft guidelines (Plug-In Electric Vehicles: Universal Charging Access Guidelines and Best Practices), addressing physical accessibility standards and design guidelines for EVs. The guide cited in Note 4 is still available, but the Division of the State Architect is currently developing accessibility standards for EV charging stations. When these standards are adopted (2016 CBC), they become mandatory, and there will be no need for the best practices to be used and for this guide to be referenced.

The proposed modification provides clarity and consistency to the code user. There is no intended change in regulatory effect.

## ***Division 4.3 – WATER EFFICIENCY AND CONSERVATION***

### **SECTION 4.303 – INDOOR WATER USE**

#### **Section 4.303.1.2 Urinals.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to repeal the date, which clarifies that Section 4.303.1.2 becomes effective on January 1, 2016, and also to change the word "The" to a capital letter T, as it is now the beginning of the sentence.

Section 4.303.1.2 was amended during an emergency rulemaking in 2015 (2013 CALGreen) to avoid a conflict between Title 20 (Appliance Efficiency Regulations) and CALGreen. The date was required to clarify that the effective date for enforcing the flush volume of 0.125 for urinals was January 1, 2016. However, this date is no longer required in this section since the 2016 CALGreen will be effective on January 1, 2017.

#### **Section: 4.303.1.4.1 Residential lavatory faucets.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with new modification. HCD proposes to repeal the date, which clarifies that Section 4.303.1.4.1 becomes effective on January 1, 2016, and also to change the word "The" to a capital letter T, as it is now the beginning of the sentence.

Section 4.303.1.4.1 was amended during an emergency rulemaking in 2015 (2013 CALGreen) to avoid a conflict between Title 20 (Appliance Efficiency Regulations) and CALGreen. The date was required to clarify that the effective date for enforcing the maximum flow rate of 1.2 gallons per minute for residential lavatory faucets was January 1, 2016. However, this date is no longer required in this section since the 2016 CALGreen will be effective on January 1, 2017.

#### **Section: 4.303.2 Standards for plumbing fixtures and fittings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. The proposed modification corrects the reference to the applicable standards in the California Plumbing Code (CPC). Currently Section 4.303.2 clarifies that in addition to the CALGreen Code requirements; plumbing fixtures and fittings shall be installed in accordance with the CPC, and shall meet the applicable standards referenced in Table 1401.1 of the CPC. The modification is necessary due to relocation of the referenced standards to Chapter 17 in the CPC. There is no intended change in regulatory effect.

### **SECTION 4.304 – OUTDOOR WATER USE**

#### **Section: 4.304.2 (Formerly 4.304.1) Irrigation controllers.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modifications. HCD proposes to repeal the phrase "provided by the builder," clarifying that Section 4.304.2 applies when landscape is installed at the time of final inspection of a project regardless of the installer (builder, owner, landscape contractor, etc.).

HCD also proposes to replace the existing note with a reference to the HCD's CALGreen Guide. Currently the note refers to the Irrigation Association for more information regarding irrigation controllers;

however, the Irrigation Association is not the only source for obtaining information about irrigation. HCD's research showed that there are dozens of other sources such as California Department of Water Resources, local enforcing agencies, local water purveyors, the Metropolitan Water District of Southern California, the California Landscape Contractors Association, etc.

HCD developed a "Guide to the California Green Building Standards Code", which provides commentary, background, questions and answers (Q&A) and some helpful tools for the code user to better understand the CALGreen Code. HCD believes that the Guide provides adequate information for compliance with this section, and refers to different sources of information, not only the Irrigation Association.

The proposed modification provides clarity to the code user. There is no intended change in regulatory effect.

#### ***Division 4.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY***

#### **SECTION 4.408 – CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING**

**Section: 4.408.1 Construction waste management.**

**Section: 4.408.4 Waste stream reduction alternative.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. The proposed modification increases the percentage of diverted nonhazardous construction and demolition waste from 50-percent to 65-percent, moving the existing Tier 1 voluntary measure (65%) to mandatory. This change represents an increase of 15%. Similarly, HCD proposed to reduce the weight of construction waste by 15% per foot in Section 4.408.4 Waste stream reduction alternative, for consistency. HCD also proposes to increase the verification requirements for Tier 1 and Tier 2, and keep the same percentages (65% and 75%). (See rationale for Section A4.408.1.)

The proposed modification (including Tier 1 and Tier 2 proposals) will aid in CalRecycle's statewide recycling goal of 75% for 2020 as stated in AB 341 (Chapter 476, Statutes of 2011).

The CBSC proposed similar amendments during the 2013 Intervening Code Adoption Cycle; however, this proposal was withdrawn. The CALGreen Code Advisory Committee recommended that the CBSC reintroduce this proposal for the 2015 Triennial Code Adoption Cycle. Currently, based upon the information from CalRecycle and local enforcing agencies, 65% is an achievable number.

#### **SECTION 4.410 - BUILDING MAINTENANCE AND OPERATION**

**Section: 4.410.1 Operation and maintenance manual.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with new modifications. HCD proposes to add "photovoltaic systems" and "electric vehicle chargers" to Item 2, clarifying that operation and maintenance instructions for photovoltaic (PV) systems and EV chargers are required in the manual.

Currently Item 2(a) requires operation and maintenance instructions for equipment and appliances. "Photovoltaic systems" and "electric vehicle chargers" fall under this category; therefore, these are covered by Item 2(a) even though not specifically stated in the text. PV systems and EV chargers are systems that play an important role in many households in California, and their importance is increasing every day. HCD proposes to incorporate these two terms in the existing language in order to provide clarity to code users as to other systems requiring operation and maintenance instructions. There is no intended change in regulatory effect.

**Section: 4.410.2 Recycling by occupants.**

**Rationale:** HCD proposes to adopt the above referenced section. This measure would require developers and/or owners of multifamily buildings with five or more dwelling units on a building site to provide readily accessible area, adequate in size to accommodate containers for depositing, storage and

collection of non-hazardous materials (including organic waste) for recycling. This requirement will assist businesses that will be required to meet AB 1826. Multifamily buildings with five or more dwelling units are also defined as businesses in AB 1826.

Section 4.410.2 was initially proposed by the Department of Resources Recycling and Recovery (CalRecycle). Similar language is currently in Section 5.410.1, but without the organic waste.

AB 341 (Chapter 476, Statutes of 2011) set California's statewide recycling goal at 75%, and directs CalRecycle to propose statewide strategies to assist in meeting that goal. Organic materials constitute about 40% of the landfilled waste and are the primary source of methane emissions from landfills. Providing adequate space for the storage and collection of organic waste would increase overall recycling and reduce emissions of methane, a potent greenhouse gas.

AB 1826 (Chapter 727, Statutes of 2014), requires, as of April 1, 2016, any business (including some multifamily residential buildings) generating eight (8) cubic yards or more of organic waste to arrange for recycling services specific to that waste. The threshold for required service is reduced to four (4) cubic yards of organic waste on January 1, 2017, and to four (4) cubic yards of commercial solid waste effective January 1, 2019.

## **Division 4.5 – ENVIRONMENTAL QUALITY**

### **SECTION 4.503 - FIREPLACES**

#### **Section: 4.503.1 General.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to clarify and update the title of the U.S. EPA emission standards, and to clarify that woodstoves or pellet stoves are required to have a permanent label indicating they are certified to meet the emission limits. The proposed modification provides clarity to the code user and consistency with the U.S. EPA New Source Performance Standards (NSPS). There is no intended change in regulatory effect.

### **SECTION 4.504 - POLLUTANT CONTROL**

#### **Section: 4.504.2.3 Aerosol paints and coatings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with new editorial modification. The proposed modification provides the code user with the correct reference to the California Code of Regulations, Title 17. The modification to the existing language is necessary due to changes in Title 17. There is no intended change in regulatory effect.

#### **Tables: 4.504.1 ADHESIVE VOC LIMIT**

#### **4.504.2 SEALANT VOC LIMIT**

#### **4.504.3 VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS**

**Rationale:** HCD proposes to continue adoption of the above referenced Tables with editorial modifications. There is no intended change in regulatory effect.

#### **Section: 4.504.5 Composite wood products.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. Currently Section 4.504.5.1 requires a verification of compliance with Section 4.504; Item 4 provides the US, Australian and European standards for exterior grade products. HCD proposes to add four Canadian standards (CSA O121, CSA O151, CSA O153, CSA O325), which is another option for compliance with this section. This proposal was suggested by the California Air Resources Board. There is no intended change in regulatory effect.

## SECTION 4.507 - ENVIRONMENTAL COMFORT

**Section: 4.507.2 Heating and air-conditioning system design.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modifications. The references to ANSI/ACCA 2 Manual J, ANSI/ACCA 1 Manual D, and ANSI/ACCA 3 Manual S are updated to the most recent standards, approved by ANSI. There is no intended change in regulatory effect.

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## 4. CHAPTER 6 REFERENCED ORGANIZATIONS AND STANDARDS

HCD proposes to continue adoption of Chapter 6 from the 2013 CALGreen Code into the 2016 CALGreen Code with modifications as follows:

**Section: 601.1**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modifications. Some standard references are updated to the most current standards, approved by the applicable organization. There is no intended change in regulatory effect.

## 5. APPENDIX A4 RESIDENTIAL VOLUNTARY MEASURES

### *Division A4.1 – PLANNING AND DESIGN*

#### SECTION A4.106 - SITE DEVELOPMENT

**Tables: A4.106.5.1(1) TIER 1- LOW-RISE RESIDENTIAL  
A4.106.5.1(3) TIER 1- HIGH-RISE RESIDENTIAL BUILDINGS, HOTELS, AND  
MOTELS**

**Rationale:** HCD proposes to continue adoption of the above referenced tables with modifications. The proposed modifications are intended to align the values in Tables A4.106.5.1(1) and A4.106.5.1(3) with the prescriptive requirements in the California Energy Code. At the time of development of this document the new proposals for the 2016 California Energy Code are pending approval; changes to the original proposals are possible. Therefore, further coordination with the California Energy Commission may be necessary.

**Section: A4.106.8.2 New multifamily dwellings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to replace the term “EV charging stations” with “EV charging spaces” since the term “EV charging space” better describes a space available for future installation of EVSE, but with no EV charger installed. The proposed modification in terminology aligns with the terminology used by DSA in Chapter 11B of the California Building Code. (See also the definition of “EV charging space” in Chapter 2 of CALGreen.)

HCD also proposes to repeal the requirement for identification of EVCS on the construction documents. The same requirement is addressed in Section 4.106.4.2.1; there is no reason for the same requirement to be duplicated.

HCD additionally proposes to update the website address in note 1.

The proposed modifications provide clarity to the code user. There is no intended change in regulatory effect.

### *Division A4.3 – WATER EFFICIENCY AND CONSERVATION*

## **SECTION A4.303 INDOOR WATER USE**

### **Section: A4.303.3 Appliances.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to keep the reference to the ENERGY STAR program for dishwashers and clothes washers, but repeal the requirement for maximum water use. HCD also proposes an editorial modification to this section.

The ENERGY STAR is a U.S. Environmental Protection Agency (EPA) voluntary program that helps businesses and individuals save money and protect the climate through superior energy efficiency. Currently Section A4.303.3 provides an elective measure for appliances, which, if adopted by a jurisdiction or chosen by a builder, would require at least one appliance (dishwasher or clothes washer) to be ENERGY STAR with specified maximum allowed water use.

HCD proposes repeal the requirement for water use because it is part of the criteria required for these products to earn the ENERGY STAR certificate. Without duplicating the water use requirements in CALGreen, if the ENERGY STAR criteria are changed, Section A4.303 3 will automatically refer to the new ENERGY STAR requirement without the need of further modification of CALGreen.

The proposed modification provides clarity to the code users and consistency with the ENERGY STAR program. There is no intended change in regulatory effect.

### **Section: A4.303.4 Nonwater supplied urinals and waterless toilets.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to incorporate language, clarifying that hybrid urinals are considered waterless urinals.

The hybrid urinal is a new product currently on the market. These urinals operate as nonwater urinals, but are connected to a water line. The hybrid urinals are able to use a water hook-up for the purpose of flushing, but do not require water to do so. Like waterless urinals, they rely on gravity to bring fluids down into the filter system; but use the water supply line at regular intervals to rinse the inside of the urinal bowl. The proposed modification is consistent with the CBSC proposal in Appendix A5.

### **Section: A4.303.5 Hot water recirculation systems.**

**Rationale:** HCD proposes to adopt the above referenced section as an elective measure for water conservation. The amount of potable water wasted while waiting for hot water to arrive to the point of use in a sink or other plumbing fixture, depends upon numerous factors – the distance between the point of use and the water heater, the water heater temperature setting, the location of the fixtures, internal pipe diameter, effective length, pipe insulation and user behavior. The Department of Energy estimates that 3,600 to 12,000 gallons of water per year can be saved by the typical household with four points of hot water use.

When energy used to treat municipal water, pump it to households, and then treat wastewater is factored in, the Department of Energy estimates that energy savings per the same household of four range from 800 to 1,600 kilowatt-hours per year.

Demand hot water recirculation systems typically cost \$200 to \$350 up front and cost only \$27 per year in electricity or \$15 a year in natural gas to operate.

## **SECTION A4.304 - OUTDOOR WATER USE**

### **Section: A4.304.2 Potable water elimination.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to repeal the phrase “by the builder,” clarifying that Section A3.304.2 applies whenever landscape is provided regardless of whether installed by the builder or the owner.

## **Division A4.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY**

### **SECTION A4.404 - EFFICIENT FRAMING TECHNIQUES**

#### **Section: A4.404.1 Lumber size**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. The proposed modification provides a reference to Chapter 23 of the California Building Code, and Chapter 6 of the California Residential Code. Currently Section A4.404.1 refers to the California Residential Code, Tables R502.5(1) and R502.5(2), for size and installation requirements for beams, headers, and trimmers. However, the span tables of Chapter 5 have been moved into Chapter 6, Tables R602.7(1) and 602.7(2). HCD proposes to repeal the reference to the tables, and refer to Chapter 6 instead. This proposal is intended to avoid incorrect section references when the International Code Council (ICC) makes changes to the model codes. When Section A4.404.1 was developed, CALGreen applied to low-rise residential buildings only. During the 2012 Triennial Code Adoption Cycle, the application was expanded to include high-rise residential buildings. However, Section A4.404.1 was not corrected; therefore, high-rise residential buildings are currently not covered. HCD proposes to correct the oversight by referring to the California Building Code, Chapter 23, for size and installation requirements for beams, headers, and trimmers for residential buildings that do not fall under the scope and application of the California Residential Code.

#### **Section: A4.404.2 Dimensions and layouts.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. The proposed modification adds a title (Dimensions and layouts) to the section number, providing clarity and consistency with other sections of CALGreen. There is no intended change in regulatory effect.

### **SECTION A4.405 - MATERIAL SOURCES**

#### **Section: A4.405.3.1.1 Total material cost.**

**Rationale:** HCD proposes to continue adoption of the above referenced table with modification. HCD proposes to repeal Table A4.405.3, and incorporate new language referring to the ICC Building Valuation Data (BVD) or other valuation data approved by the local enforcing agency.

Currently Table A4.405.3 provides the square foot construction cost for one- and two-family dwellings, and multifamily dwellings, pursuant to the International Code Council's (ICC) Building Valuation Data. However, the BVD codified in the 2013 CALGreen is already outdated because it was published in February 2011. ICC updates its BVD every six months; therefore, it is not possible for HCD to keep the data in CALGreen current with 18 months adoption cycle. Instead maintaining the ICC tables in CALGreen, HCD proposes to provide a reference to the ICC data base, or other data approved by the local enforcing agency.

#### **Sections: A4.405.3.1.3 Determination of recycled content value of materials (RCV<sub>M</sub>). (Note 2)**

#### **A4.405.3.1.4 Determination of recycled content value of assemblies (RCV<sub>A</sub>). (Note)**

**Rationale:** HCD proposes to adopt the above referenced sections with modifications. HCD proposes to modify the notes, clarifying that the total recycled content shall be considered preconsumer when the manufacturer reports the total recycled content of a material as one percentage, in lieu of separately reporting preconsumer and postconsumer values. Currently the notes allow the total recycled content to be calculated as 50-percent preconsumer and 50-percent postconsumer when not reported separately by the manufacturer. The proposed modification is intended to encourage manufacturers to designate and report the recycled content in materials as preconsumer and postconsumer, and to provide additional benefits for manufacturers using only postconsumer recycled content in their products.

### **SECTION A4.408 - CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING**

**Section: A4.408.1 Enhanced construction waste reduction.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modifications. The proposed modification increases the verification requirements for Tier 1 and Tier 2, and keeps the same percentages (65% and 75%) for construction waste reduction.

Additional verification requirements for Tier 1 and Tier 2, as a voluntary measures, will aid in CalRecycle's statewide recycling goal at 75% for 2020 as stated in AB 341 (Chapter 476, Statutes of 2011). HCD also proposes to increase the percentage of nonhazardous construction and demolition waste from 50-percent to 65-percent, moving the existing Tier 1 voluntary measure (65%) to mandatory. (See the rationale for Section 4.408.1)

**Division A4.6 – TIER I AND TIER 2**

**SECTION A4.601 - GENERAL**

**Section: A4.601.4.2 Prerequisite and elective measures for Tier 1.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification in Item 3. The proposed modification changes the requirements for achieving Tier 1 status.

Until June 1, 2015, when the emergency proposal for outdoor irrigation was adopted (in 2013 CALGreen), Section A4.601.4.2 required compliance with two prerequisites and two elective measures for residential buildings to achieve Tier 1 status. As part of the emergency rulemaking, the requirement for water budget (prerequisite) was moved to Chapter 4 as mandatory, and Section A4.304.4 (prerequisite), mandating potable water use reduction, was repealed. As a result, currently Tier 1 can be achieved with two electives only.

HCD proposes to increase the required number of electives from two to three in order to provide more opportunities for jurisdictions, builders, and/or owners to conserve water. The proposed modification is consistent with the Governor's Executive Order B-29-15, issued on April 1, 2015.

**Section: A4.601.5.2 Prerequisite and elective measures for Tier 2.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification in Item 3. The proposed modification changes the requirements for achieving Tier 2 status.

Until June 1, 2015, when the emergency proposal for outdoor irrigation was adopted (in 2013 CALGreen), Section A4.601.5.2 required compliance with two prerequisites and three elective measures for residential buildings to achieve Tier 2 status. As part of the emergency rulemaking, the requirement for water budget (prerequisite) was moved to Chapter 4 as mandatory, and Section A4.304.4 (prerequisite), mandating potable water use reduction, was repealed. As a result, currently Tier 2 can be achieved with two electives only.

HCD proposes to increase the required number of electives from three to four in order to provide more opportunities for jurisdictions, builders, and/or owners to conserve water. The proposed modification is consistent with the Governor's Executive Order B-29-15, issued on April 1, 2015.

**Section: A4.602 RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST**

**Rationale:** HCD proposes to adopt the above referenced section with modification. HCD proposes to modify the language in the application checklist to align with the modifications proposed to other sections in the 2016 CALGreen.

There is no intended change in regulatory effect.

**TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS:**

(Government Code Section 11346.2(b)(3) requires an identification of each technical, theoretical, and empirical study, report, or similar document, if any, upon which the agency relies in proposing the regulation(s).

None.

**STATEMENT OF JUSTIFICATION FOR PRESCRIPTIVE STANDARDS:**

(Government Code Section 11346.2(b)(1) requires a statement of the reasons why an agency believes any mandates for specific technologies or equipment or prescriptive standards are required.)

HCD is statutorily required to adopt by reference model building codes, which contain prescriptive standards. Prescriptive standards provide the following: explicit guidance for certain mandated requirements; consistent application and enforcement of building standards while also establishing clear design parameters; and ensure compliance with minimum health, safety and welfare standards for owners, occupants and guests.

Performance standards are permitted by state law; however, they must be demonstrated to the satisfaction of the proper enforcing agency.

**CONSIDERATION OF REASONABLE ALTERNATIVES**

(Government Code Section 11346.2(b)(4)(A) requires a description of reasonable alternatives to the regulation and the agency's reasons for rejecting those alternatives. In the case of a regulation that would mandate the use of specific technologies or equipment or prescribe specific action or procedures, the imposition of performance standards shall be considered as an alternate. It is not the intent of this paragraph to require the agency to artificially construct alternatives or describe unreasonable alternatives.)

None. There were no alternatives available to HCD. HCD is required by statute to adopt model codes by reference, however, there are no model codes addressing green building standards specific to California.

**REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS.**

(Government Code Section 11346.2(b)(4)(B) requires a description of any reasonable alternatives that have been identified or that have otherwise been identified and brought to the attention of the agency that would lessen any adverse impact on small business.)

HCD has determined that this regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states.

**FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS.**

(Government Code Section 11346.2(b)(5)(A) requires the facts, evidence, documents, testimony, or other evidence on which the agency relies to support an initial determination that the action will not have a significant adverse economic impact on business.)

None.

**ASSESSMENT OF EFFECT OF REGULATIONS UPON JOBS AND BUSINESS EXPANSION, ELIMINATION OR CREATION.**

(Government Code Sections 11346.3(b)(1) and 11346.5(a)(10)).

HCD has assessed whether or not and to what extent this proposal will affect the following:

- The creation or elimination of jobs within the State of California.

**These regulations will not affect the creation, or cause the elimination, of jobs within the State of California.**

- The creation of new businesses or the elimination of existing businesses within the State of California.

**These regulations will not affect the creation or the elimination of existing business within the State of California.**

- The expansion of businesses currently doing business with the State of California.

**These regulations will not affect the expansion of businesses currently doing business within the State of California.**

- The benefits of the regulations to the health and welfare of California residents, worker safety, and the state's environment.

**These regulations will update and improve minimum existing building standards, which will provide increased protection of public health and safety, worker safety and the environment.**

#### **ESTIMATED COST OF COMPLIANCE, ESTIMATED POTENTIAL BENEFITS, AND RELATED ASSUMPTIONS USED FOR BUILDING STANDARDS**

(Government Code Section 11346.2(b)(5)(B)(i) states if a proposed regulation is a building standard, the initial statement of reasons shall include the estimated cost of compliance, the estimated potential benefits, and the related assumptions used to determine the estimates.)

- No increased cost of compliance for those regulations.
- The potential benefits include, but are not limited to:
  - Continue to reduce greenhouse gas (GHG) emissions.
  - Continue the Administration's directive to adopt green building standards for residential, commercial, and public building construction as part of the building code adoption process.
  - Protection of public health and safety.
  - Environmental benefits through reduced use of energy, water, and raw materials; improved public and building occupant health due to improved indoor air quality; and overall reduction in detrimental environmental impacts.
  - General welfare of California residents.

#### **DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS**

(Government Code Section 11346.2(b)(6) requires a department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal to describe its efforts, in connection with a proposed rulemaking action, to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues. These agencies may adopt regulations different from these federal regulations upon a finding of one or more of the following justifications: (A) The differing state regulations are authorized by law and/or (B) The cost of differing state regulations is justified by the benefit to human health, public safety, public welfare, or the environment.)

These regulations do not duplicate nor conflict with federal regulations. The State of California has preemptive authority to adopt more restrictive mandatory standards for the appliances addressed in these regulations.

## Exhibit B

### FINDING OF EMERGENCY OF THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT (HCD) REGARDING THE 2013 CALIFORNIA PLUMBING CODE (CPC) CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5

The adoption of these regulations or order of repeal is necessary for the immediate preservation of the public peace, health and safety, or general welfare, as follows:

#### **FINDING OF EMERGENCY**

In response to State of Emergency proclamations issued by Governor Brown in January and April of 2014, and in particular Executive Order B-29-15 (issued April 1, 2015), and adoption of revised Appliance Efficiency Regulations by the California Energy Commission, HCD is proposing this emergency building standard regulation requiring further prescriptive water use reduction for urinals and residential lavatory faucets for newly constructed residential buildings.

HCD is proposing the adoption of these emergency regulations that amend the 2013 California Plumbing Code (California Code of Regulations, Title 24, Part 5) as follows:

- Amends Section 403.3 pertaining to urinals with an effective date of January 1, 2016.
- Amends Section 403.7 pertaining to residential lavatory faucets with an effective date of July 1, 2016.

HCD is also proposing the adoption of these emergency regulations that amend the 2013 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11, also known as CALGreen) as follows:

- Amends Section 4.303.1.2 pertaining to urinals with an effective date of January 1, 2016.
- Amends Section 4.303.1.4.1 pertaining to residential lavatory faucets with an effective date of July 1, 2016.

#### **BACKGROUND (objectives and benefits)**

California has been faced with persistent drought conditions over the last decade. This summary will provide recent history applicable to this rulemaking.

Governor Brown's Executive Order B-29-15 (April 1, 2015) provided a summary of the ongoing drought conditions in California starting with declarations for a State of Emergency (January 17, 2014) and Continued State of Emergency (April 25, 2014); evidence of a record low snowpack, decreased water levels in reservoirs, reduced river flows, and declining supplies in underground water basins.

In addition, the Governor acknowledged that a distinct possibility exists for drought conditions to continue. Further, the Executive Order found that conditions of extreme peril to the safety of persons and property continue to exist due to water shortage and drought conditions with which local authority is unable to cope. To address these concerns, the Executive Order specified that strict compliance with identified statutes and regulations would prevent, hinder or delay, or mitigate the effects of the drought. The following objective and individual directive is applicable to this rulemaking. Although HCD is not specifically charged with the directive, HCD is implementing the prescriptive standards related to residential lavatory faucets and urinals from the California Energy Commission's Appliance Efficiency Regulations, into the building standards codes, specifically the 2013 California Plumbing Code and the 2013 CALGreen Code.

### **Implementing the 25% Standard (Water Conservation; State Water Resources Control Board)**

The findings of drought emergency in emergency regulations adopted in May 2015 by the State Water Resources Control Board recognize the Governor's Executive Order B-29-15 which direct the State Board to impose restrictions on water suppliers to achieve, in part, a statewide 25 percent reduction in potable urban usage through February 28, 2016. The findings also recognize that drought conditions continue to exist and will likely continue for the foreseeable future and additional action by both the State Water Resources Control Board and local water suppliers will likely be necessary to prevent waste and unreasonable use of water and to further promote conservation. The Board has also posted an Urban Water Supplier Conservation Tiers document which identifies specific water conservation standards applicable to specified suppliers, ranging from 4 to 36 percent (as of June 11, 2015).

### **Increase Enforcement Against Water Waste**

Item 16 of the Governor's Executive Order directs the California Energy Commission to update emergency regulations establishing standards that improve the efficiency of water appliances, including toilets, urinals, and faucets available for sale and installation in new and existing buildings.

Given the extensive code adoption process, adherence to the current 2015 Triennial Code Adoption Cycle schedule would make the proposed building standards effective at the local level on January 1, 2017. Deadlines for proposed changes in the 2013 Intervening Code Cycle have already passed. The approved changes for the 2013 Intervening Code Cycle, which become effective July 1, 2015, have already been published.

A delay of nearly 6 months in the effective date for measures reducing flow rates of residential lavatory faucets and 12 months for reduced flush volume for wall hung urinals does not address the Governor's declared emergency for the effective conservation of California's limited water resources. In view of the urgency to conserve California's water resources, as deemed essential by the Governor's Executive Order and prior proclamations, HCD proposes the adoption of these building standards through the emergency adoption process. HCD finds that:

1. The executive order and proclamation issued by the Governor have clearly indicated priority for the conservation of California's water resources as being essential and critical and that there be no undue delay in enacting measures to achieve this goal.
2. HCD has recently adopted emergency regulations related to outdoor residential water use and compliance with the Department of Water Resources' Model Water Efficient Landscape Ordinance. Although outdoor residential water use is a significant portion of residential water use, additional water use reduction is also possible with reduced flow faucets and reduced flush volume urinals.
3. HCD has adopted prior emergency regulations into the CPC related to impacts of the drought conditions in California and the need to conserve water. For example, the adoption of emergency regulations (California amendments) related to use of gray water systems in California was approved by the California Building Standards Code (CBSC) in 2009 which amended the 2007 California Plumbing Code (CPC). HCD has supported the conservation and efficient use of potable water whenever possible.
4. HCD has maintained stakeholder lists for those interested in water conservation either through measures proposed in the CALGreen Code or in the CPC. Although the proposed regulations incorporate regulations adopted by the California Energy Commission, HCD plans to have opportunities for public comments during the certification process for these emergency regulations as well as through the normal rulemaking process for the adoption of standards related to the 2016 building standards codes.
5. HCD also recognizes these emergency regulations will result in water savings related to existing residential structures through statutory requirements in Civil Code Section 1101.2 *et seq.*, which will apply the most current building standards related to, lavatory faucets, urinals, toilets and showerheads to existing dwellings built prior to 1994:

### **Single-Family Residential (Section 1101.4)**

- As of January 1, 2014, for all building alterations or improvements to single-family residential real property, as a condition for issuance of a certificate of final completion and occupancy or final permit approval by the local building department, the permit applicant shall replace all noncompliant plumbing fixtures with water-conserving plumbing fixtures.
- As of January 1, 2017, noncompliant plumbing fixtures in any single-family residential real property shall be replaced by the property owner with water-conserving plumbing fixtures.

### **Multi-Family Residential (includes residential hotels) and Commercial (includes hotels that are not residential hotels) (Section 1101.5)**

- As of January 1, 2014, all noncompliant plumbing fixtures in any multifamily residential real property and any commercial real property shall be replaced with water-conserving plumbing fixtures under specified conditions.
- As of January 1, 2019, all noncompliant plumbing fixtures in any multifamily residential real property and in any commercial real property shall be replaced with water-conserving plumbing fixtures.

### **AUTHORITY AND REFERENCE**

The Health and Safety Code (HSC), State Housing Law, Section 17921, provides the Department of Housing and Community Development (HCD) authority to propose the adoption, amendment, or repeal of building standards to the California Building Standards Commission (CBSC) in accordance with the HSC, California Building Standards Law, and provisions for the California Building Standards Code (Section 18935 *et seq.*).

HSC, Employee Housing Act, Section 17040, provides HCD authority to adopt, amend, or repeal rules and regulations for the protection of the public health, safety, and general welfare of employees and the public, governing the erection, construction, enlargement, conversion, alteration, repair, occupancy, use, sanitation, ventilation, and maintenance of all employee housing.

HSC, Factory-Built Housing Law, Section 19990, provides HCD authority to adopt rules and regulations to implement the law. California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, Article 5, Section 3070, requires design and fabrication of factory-built housing to be in accordance with the applicable building standards in specified parts, including Part 11 CALGreen, and Part 5 California Plumbing Code, of the Building Standards Code.

HSC, State Housing Law, Section 17928 also provides HCD authority to consider proposing as mandatory buildings standards green building features determined by the HCD to be cost effective and feasible to promote greener construction. The California Building Standards Law also provides for the CBSC to act upon emergency standards if the proposing agency has made the finding of emergency in compliance with Government Code Section 11346.5.

HCD has determined that the adoption of these building standards or order of repeal is necessary for the immediate preservation of the public peace, health and safety, or general welfare, as follows:

HSC, California Building Standards Law, Section 18937 provides that the CBSC commissioners shall act on emergency standards within 30 days, and they must act on the merit of the emergency finding as well as on the proposed standards. HSC Section 18938 requires the filing of emergency standards with the Secretary of State by CBSC only after they have been approved by the commissioners. It requires that the standards become effective when filed Secretary of State or at a later date specified in the standards, and that they be published in Title 24. In this case, the operative date will be January 1, 2016, for urinals,

and July 1, 2016, for lavatory faucets, to be consistent with the California Energy Commission's Appliance Efficiency Regulations.

## **INFORMATIVE DIGEST**

### Summary of Existing Laws and Regulations

#### **California Plumbing Code**

Existing California Code of Regulations, Title 24, 2013 California Plumbing Code (CPC), contains prescriptive requirements which limit the flow of water in fixtures, including urinals and lavatory faucets, as summarized below:

#### Section 403.3 Urinals

Effective flush volume cannot exceed 0.5 gallons per flush.

#### Section 403.7 Residential Lavatory Faucets

Maximum flow rate is 1.5 gallons per minute at 60 psi.

Minimum flow rate cannot be less than 0.8 gallons per minute at 20 psi.

#### **CALGreen Code**

Existing California Code of Regulations, Title 24, 2013 California Green Building Standards Code (CALGreen), consists of building standards addressing sustainable (green) building methods and materials of construction. CALGreen is not based on a model code, however, similar to other green building programs, CALGreen includes provisions related to water efficiency and conservation. The current mandatory and voluntary provisions in the 2013 CALGreen for indoor water use as related to these regulations are summarized below:

#### Section 4.303.1.2 Urinals

Effective flush volume cannot exceed 0.5 gallons per flush.

#### Section 4.303.1.4.1 Residential lavatory faucets

Maximum flow rate is 1.5 gallons per minute at 60 psi.

Minimum flow rate cannot be less than 0.8 gallons per minute at 20 psi.

#### Section A4.303.4 Nonwater supplied urinals and waterless toilets

This is a voluntary elective measure available for adoption which allows the installation of nonwater supplied urinals or composting toilets.

#### Summary Of Effect

This regulatory action provides consistency between the California Building Standards Code which includes the 2013 California Green Building Standards Code (CALGreen) Sections 4.303.1.2 (urinals) and 4.303.1.4.1 (residential lavatory faucets), the 2013 California Plumbing Code Sections 403.3 (urinals) and 403.7 (residential lavatory faucets); and the California Energy Commission's Appliance Efficiency Regulations. Specifically, these emergency regulations will ensure consistency in water use of urinals and lavatory faucets and in the effective dates for the specified flush volume and flow rate.

As an emergency regulation, the proposed standards will be effective immediately upon approval by the CBSC and filing with the Secretary of State to avoid serious harm to the public peace, health, safety and general welfare in response to ongoing drought conditions and the subsequent State of Emergency proclamations and Executive Order B-29-15 issued by the Governor. As far as implementation, the emergency regulations include an operative date of January 1, 2016, for urinals and July 1, 2016, for lavatory faucets; therefore, the emergency regulations will apply on January 1, 2016, and July 1, 2016, as specified.

#### Comparable Federal Statutes or Regulations

There are no comparable federal statutes or regulations.

### Policy Statement Overview

The broad objective of these proposed building standards is to comply with the Governor's Executive Order B-29-15 and prior proclamations related to impact of the drought on California's populace and potential mitigation measures.

Therefore, the specific objectives of these proposed regulations are to:

- Assist with implementation of the provisions of the Governor's Executive Order and prior proclamations including standards improving the efficiency of water appliances.
- Ensure that building standards for urinals and residential lavatory faucets are consistent with the California Energy Commission's Appliance Efficiency Regulations.

### **Conflict With Existing State Statutes Or Regulations**

The proposed regulations would address conflicting requirements between the 2013 CALGreen Code, the 2013 California Plumbing Code, and the California Energy Commission's recently adopted Appliance Efficiency Regulations.

### **MATTERS PRESCRIBED BY STATUTE APPLICABLE TO THE AGENCY OR TO ANY SPECIFIC REGULATION OR CLASS OF REGULATIONS**

HCD is authorized to adopt buildings standards (Health and Safety Code Section 17922) which may be based on model codes or other rules and regulations. This section also provides for adoption of any additions or deletions made by HCD.

The California Energy Commission is authorized to prescribe standards for minimum operating efficiency for energy and water efficient appliances (Public Resources Code Section 25402(c)). This is part of the authority for adoption of the Appliance Efficiency Regulations.

### **MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS**

HCD has determined that the proposed regulatory action enforces a new requirement within the Building Standards Code on local agencies. However, HCD's proposal is based on the Appliance Efficiency Regulations adopted by the California Energy Commission and an effort to ensure consistency between state regulations.

### **FISCAL IMPACT STATEMENT (attached Form 399)**

- A. Cost or Savings to any state agency: **NO**
- B. Cost to any local agency required to be reimbursed under Part 7(commencing with Section 17500) of Division 4: **NO**
- C. Cost to any school district required to be reimbursed under Part 7 (commencing with Section 17500) of Division 4: **NO**
- D. Other nondiscretionary cost or savings imposed on local agencies: **NO**
- E. Cost or savings in federal funding to the state: **NO**

**Estimate:** The proposed regulatory changes related to mandatory requirements in the 2013 CALGreen Code and 2013 California Plumbing Code are not anticipated to result in additional costs. This is due, in part, to the Appliance Efficiency Regulations which will require that only urinals and residential lavatory faucets meeting specific water use criteria be available for sale in California starting on January 1, 2016, for urinals and July 1, 2016, for lavatory faucets. The proposed regulations require that only those urinals and residential lavatory faucets legally available for sale in California on January 1, 2016, and July 1, 2016, as specified by the California Energy Commission, be permitted to be installed on or after the same date.

The reduced water use resulting from these regulations may result in reduced water utility bill costs and reduced energy use related to costs of treating and transporting water.

## Exhibit C

### FINDING OF EMERGENCY OF THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT (HCD) REGARDING THE 2013 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN) CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11

The adoption of these regulations or order of repeal is necessary for the immediate preservation of the public peace, health and safety, or general welfare, as follows:

#### **FINDING OF EMERGENCY**

In response to State of Emergency proclamations issued by Governor Brown in January and April of 2014, and in particular Executive Order B-29-15 (issued April 1, 2015), and adoption of revised Appliance Efficiency Regulations by the California Energy Commission, HCD is proposing this emergency building standard regulation requiring further prescriptive water use reduction for urinals and residential lavatory faucets for newly constructed residential buildings.

HCD is proposing the adoption of these emergency regulations that amend the 2013 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11, also known as "CALGreen") as follows:

- Amends Section 4.303.1.2 pertaining to urinals with an effective date of January 1, 2016.
- Amends Section 4.303.1.4.1 pertaining to residential lavatory faucets with an effective date of July 1, 2016.

HCD is also proposing the adoption of these emergency regulations that amend the 2013 California Plumbing Code (California Code of Regulations, Title 24, Part 5), as follows:

- Amends Section 403.3 pertaining to urinals with an effective date of January 1, 2016.
- Amends Section 403.7 pertaining to residential lavatory faucets with an effective date of July 1, 2016.

#### **BACKGROUND (objectives and benefits)**

California has been faced with persistent drought conditions over the last decade. This summary will provide recent history applicable to this rulemaking.

Governor Brown's Executive Order B-29-15 (April 1, 2015) provided a summary of the ongoing drought conditions in California starting with declarations for a State of Emergency (January 17, 2014) and Continued State of Emergency (April 25, 2014); evidence of a record low snowpack, decreased water levels in reservoirs, reduced river flows, and declining supplies in underground water basins.

In addition, the Governor acknowledged that a distinct possibility exists for drought conditions to continue. Further, the Executive Order found that conditions of extreme peril to the safety of persons and property continue to exist due to water shortage and drought conditions with which local authority is unable to cope. To address these concerns, the Executive Order specified that strict compliance with identified statutes and regulations would prevent, hinder or delay, or mitigate the effects of the drought. The following objective and individual directive is applicable to this rulemaking. Although HCD is not specifically charged with the directive, HCD is implementing the prescriptive standards related to residential lavatory faucets and urinals from the California Energy Commission's Appliance Efficiency Regulations, into the building standards codes, specifically the 2013 CALGreen Code and the 2013 California Plumbing Code.

### **Implementing the 25% Standard (Water Conservation; State Water Resources Control Board)**

The findings of drought emergency in emergency regulations adopted in May 2015 by the State Water Resources Control Board recognize the Governor's Executive Order B-29-15 which direct the State Board to impose restrictions on water suppliers to achieve, in part, a statewide 25 percent reduction in potable urban usage through February 28, 2016. The findings also recognize that drought conditions continue to exist and will likely continue for the foreseeable future and additional action by both the State Water Resources Control Board and local water suppliers will likely be necessary to prevent waste and unreasonable use of water and to further promote conservation. The Board has also posted an Urban Water Supplier Conservation Tiers document which identifies specific water conservation standards applicable to specified suppliers, ranging from 4 to 36 percent (as of June 11, 2015).

### **Increase Enforcement Against Water Waste**

Item 16 of the Governor's Executive Order directs the California Energy Commission to update emergency regulations establishing standards that improve the efficiency of water appliances, including toilets, urinals, and faucets available for sale and installation in new and existing buildings.

Given the extensive code adoption process, adherence to the current 2015 Triennial Code Adoption Cycle schedule would make the proposed building standards effective at the local level on January 1, 2017. Deadlines for proposed changes in the 2013 Intervening Code Cycle have already passed. The approved changes for the 2013 Intervening Code Cycle, which become effective July 1, 2015, have already been published.

A delay of nearly 6 months in the effective date for measures reducing flow rates of residential lavatory faucets and 12 months for reduced flush volume for wall hung urinals does not address the Governor's declared emergency for the effective conservation of California's limited water resources. In view of the urgency to conserve California's water resources, as deemed essential by the Governor's Executive Order and prior proclamations, HCD proposes the adoption of these building standards through the emergency adoption process. HCD finds that:

1. The executive order and proclamation issued by the Governor have clearly indicated priority for the conservation of California's water resources as being essential and critical and that there be no undue delay in enacting measures to achieve this goal.
2. HCD has recently adopted emergency regulations related to outdoor residential water use and compliance with the Department of Water Resources' Model Water Efficient Landscape Ordinance. Although outdoor residential water use is a significant portion of residential water use, additional water use reduction is also possible with reduced flow faucets and reduced flush volume urinals.
3. HCD has adopted prior emergency regulations into the California Plumbing Code (CPC) related to impacts of the drought conditions in California and the need to conserve water. For example, the adoption of emergency regulations (California amendments) related to use of gray water systems in California was approved by the California Building Standards Commission (CBSC) in 2009 which amended the 2007 California Plumbing Code (CPC). HCD has supported the conservation and efficient use of potable water whenever possible.
4. HCD has maintained stakeholder lists for those interested in water conservation either through measures proposed in the CALGreen Code or in the CPC. Although the proposed regulations incorporate regulations adopted by the California Energy Commission, HCD plans to have opportunities for public comments during the certification process for these emergency regulations as well as through the normal rulemaking process for the adoption of standards related to the 2016 building standards codes.
5. HCD also recognizes these emergency regulations will result in water savings related to existing residential structures through statutory requirements in Civil Code Section 1101.2 *et seq.*, which will

apply the most current building standards related to, lavatory faucets, urinals, toilets and showerheads to existing dwellings built prior to 1994:

**Single-Family Residential (Section 1101.4)**

- As of January 1, 2014, for all building alterations or improvements to single-family residential real property, as a condition for issuance of a certificate of final completion and occupancy or final permit approval by the local building department, the permit applicant shall replace all noncompliant plumbing fixtures with water-conserving plumbing fixtures.
- As of January 1, 2017, noncompliant plumbing fixtures in any single-family residential real property shall be replaced by the property owner with water-conserving plumbing fixtures.

**Multi-Family Residential (includes residential hotels) and Commercial (includes hotels that are not residential hotels) (Section 1101.5)**

- As of January 1, 2014, all noncompliant plumbing fixtures in any multifamily residential real property and any commercial real property shall be replaced with water-conserving plumbing fixtures under specified conditions.
- As of January 1, 2019, all noncompliant plumbing fixtures in any multifamily residential real property and in any commercial real property shall be replaced with water-conserving plumbing fixtures.

**AUTHORITY AND REFERENCE**

The Health and Safety Code (HSC), State Housing Law, Section 17921, provides the Department of Housing and Community Development (HCD) authority to propose the adoption, amendment, or repeal of building standards to the California Building Standards Commission (CBSC) in accordance with the HSC, California Building Standards Law, and provisions for the California Building Standards Code (Section 18935 *et seq.*).

HSC, Employee Housing Act, Section 17040, provides HCD authority to adopt, amend, or repeal rules and regulations for the protection of the public health, safety, and general welfare of employees and the public, governing the erection, construction, enlargement, conversion, alteration, repair, occupancy, use, sanitation, ventilation, and maintenance of all employee housing.

HSC, Factory-Built Housing Law, Section 19990, provides HCD authority to adopt rules and regulations to implement the law. California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, Article 5, Section 3070, requires design and fabrication of factory-built housing to be in accordance with the applicable building standards in specified parts, including Part 11 CALGreen, and Part 5 California Plumbing Code, of the Building Standards Code.

HSC, State Housing Law, Section 17928 also provides HCD authority to consider proposing as mandatory buildings standards green building features determined by the HCD to be cost effective and feasible to promote greener construction. The California Building Standards Law also provides for the CBSC to act upon emergency standards if the proposing agency has made the finding of emergency in compliance with Government Code Section 11346.5.

HCD has determined that the adoption of these building standards or order of repeal is necessary for the immediate preservation of the public peace, health and safety, or general welfare, as follows:

HSC, California Building Standards Law, Section 18937 provides that the CBSC commissioners shall act on emergency standards within 30 days, and they must act on the merit of the emergency finding as well as on the proposed standards. HSC Section 18938 requires the filing of emergency standards with the Secretary of State by CBSC only after they have been approved by the commissioners. It requires that the standards become effective when filed Secretary of State or at a later date specified in the standards, and that they be published in Title 24. In this case, the operative date will be January 1, 2016, for urinals

and July 1, 2016, for lavatory faucets to be consistent with the California Energy Commission's Appliance Efficiency Regulations.

## **INFORMATIVE DIGEST**

### Summary of Existing Laws and Regulations

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Existing California Code of Regulations, Title 24, 2013 California Green Building Standards Code (CALGreen), consists of building standards addressing sustainable (green) building methods and materials of construction. CALGreen is not based on a model code, however, similar to other green building programs, CALGreen includes provisions related to water efficiency and conservation. The current mandatory and voluntary provisions in the 2013 CALGreen for indoor water use as related to these regulations are summarized below:

#### Section 4.303.1.2 Urinals

Effective flush volume cannot exceed 0.5 gallons per flush.

#### Section 4.303.1.4.1 Residential lavatory faucets

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Minimum flow rate cannot be less than 0.8 gallons per minute at 20 psi.

#### Section A4.303.4 Nonwater supplied urinals and waterless toilets

This is a voluntary elective measure available for adoption which allows the installation of nonwater supplied urinals or composting toilets.

#### **California Plumbing Code**

Existing California Code of Regulations, Title 24, 2013 California Plumbing Code (CPC), contains prescriptive requirements which limit the flow of water in fixtures, including urinals and lavatory faucets, as summarized below:

#### Section 403.3 Urinals

Effective flush volume cannot exceed 0.5 gallons per flush.

#### Section 403.7 Residential Lavatory Faucets

Maximum flow rate is 1.5 gallons per minute at 60 psi.

Minimum flow rate cannot be less than 0.8 gallons per minute at 20 psi.

#### Summary Of Effect

This regulatory action provides consistency between the California Building Standards Code which includes the 2013 California Green Building Standards Code (CALGreen) Sections 4.303.1.2 (urinals) and 4.303.1.4.1 (residential lavatory faucets), the 2013 California Plumbing Code Sections 403.3 (urinals) and 403.7 (residential lavatory faucets); and the California Energy Commission's Appliance Efficiency Regulations. Specifically, these emergency regulations will ensure consistency in water use of urinals and lavatory faucets and in the effective dates for the specified flush volume and flow rate.

As an emergency regulation, the proposed standards will be effective immediately upon approval by the CBSC and filing with the Secretary of State to avoid serious harm to the public peace, health, safety and general welfare in response to ongoing drought conditions and the subsequent State of Emergency proclamations and Executive Order B-29-15 issued by the Governor. As far as implementation, the emergency regulations include an operative date of January 1, 2016, for urinals and July 1, 2016, for lavatory faucets; therefore, the emergency regulations will apply on January 1, 2016, and July 1, 2016, as specified.

#### Comparable Federal Statutes or Regulations

There are no comparable federal statutes or regulations.

#### Policy Statement Overview

The broad objective of these proposed building standards is to comply with the Governor's Executive Order B-29-15 and prior proclamations related to impact of the drought on California's populace and potential mitigation measures.

Therefore, the specific objectives of these proposed regulations are to:

- Assist with implementation of the provisions of the Governor's Executive Order and prior proclamations including standards improving the efficiency of water appliances.
- Ensure that building standards for urinals and residential lavatory faucets are consistent with the California Energy Commission's Appliance Efficiency Regulations.

#### **Conflict With Existing State Statutes Or Regulations**

The proposed regulations would address conflicting requirements between the 2013 CALGreen Code, the 2013 California Plumbing Code, and the California Energy Commission's recently adopted Appliance Efficiency Regulations.

#### **MATTERS PRESCRIBED BY STATUTE APPLICABLE TO THE AGENCY OR TO ANY SPECIFIC REGULATION OR CLASS OF REGULATIONS**

HCD is authorized to adopt buildings standards (Health and Safety Code Section 17922) which may be based on model codes or other rules and regulations. This section also provides for adoption of any additions or deletions made by HCD.

The California Energy Commission is authorized to prescribe standards for minimum operating efficiency for energy and water efficient appliances (Public Resources Code Section 25402(c)). This is part of the authority for adoption of the Appliance Efficiency Regulations.

#### **MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS**

HCD has determined that the proposed regulatory action enforces a new requirement within the Building Standards Code on local agencies. However, HCD's proposal is based on the Appliance Efficiency Regulations adopted by the California Energy Commission and an effort to ensure consistency between state regulations.

#### **FISCAL IMPACT STATEMENT (attached Form 399)**

- A. Cost or Savings to any state agency: **NO**
- B. Cost to any local agency required to be reimbursed under Part 7(commencing with Section 17500) of Division 4: **NO**
- C. Cost to any school district required to be reimbursed under Part 7 (commencing with Section 17500) of Division 4: **NO**
- D. Other nondiscretionary cost or savings imposed on local agencies: **NO**
- E. Cost or savings in federal funding to the state: **NO**

**Estimate:** The proposed regulatory changes related to mandatory requirements in the 2013 CALGreen Code and 2013 California Plumbing Code are not anticipated to result in additional costs. This is due, in part, to the Appliance Efficiency Regulations which will require that only urinals and residential lavatory faucets meeting specific water use criteria be available for sale in California starting on January 1, 2016, for urinals, and July 1, 2016, for lavatory faucets. The proposed regulations require that only those urinals and residential lavatory faucets legally available for sale in California on January 1, 2016, and July 1, 2016, as specified by the California Energy Commission, be permitted to be installed on or after the same date.

The reduced water use resulting from these regulations may result in reduced water utility bill costs and reduced energy use related to costs of treating and transporting water.