

## DOCKETED

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<b>Project Title:</b>	Residential Lavatory Faucets and Showerheads
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<b>Docketed Date:</b>	7/30/2015



# Proposed Adoption of Water Efficiency Regulations

## **Lead Commissioner Workshop**

Art Rosenfeld Hearing Room

July 28, 2015

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Efficiency Division

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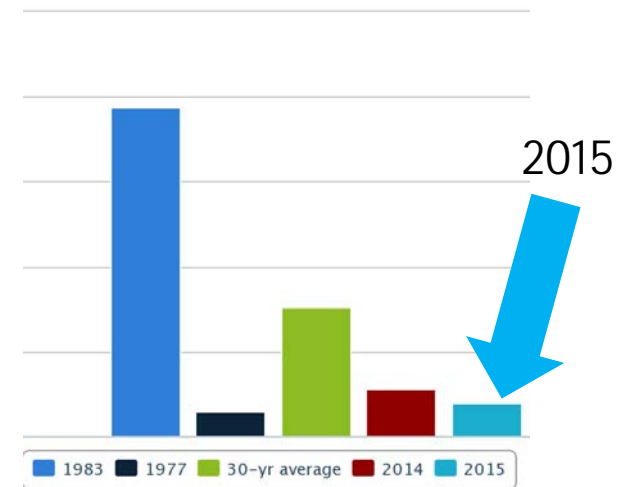


# California faces a drought and water emergency

- 2014 third driest and warmest year on record
- Sierra snowpack at 5 percent of average
- Reservoir levels less than 50 percent of average



Folsom Lake, CA, Winter 2013-2014



Annual CA Runoff (USGS)

All Californians must act to conserve water

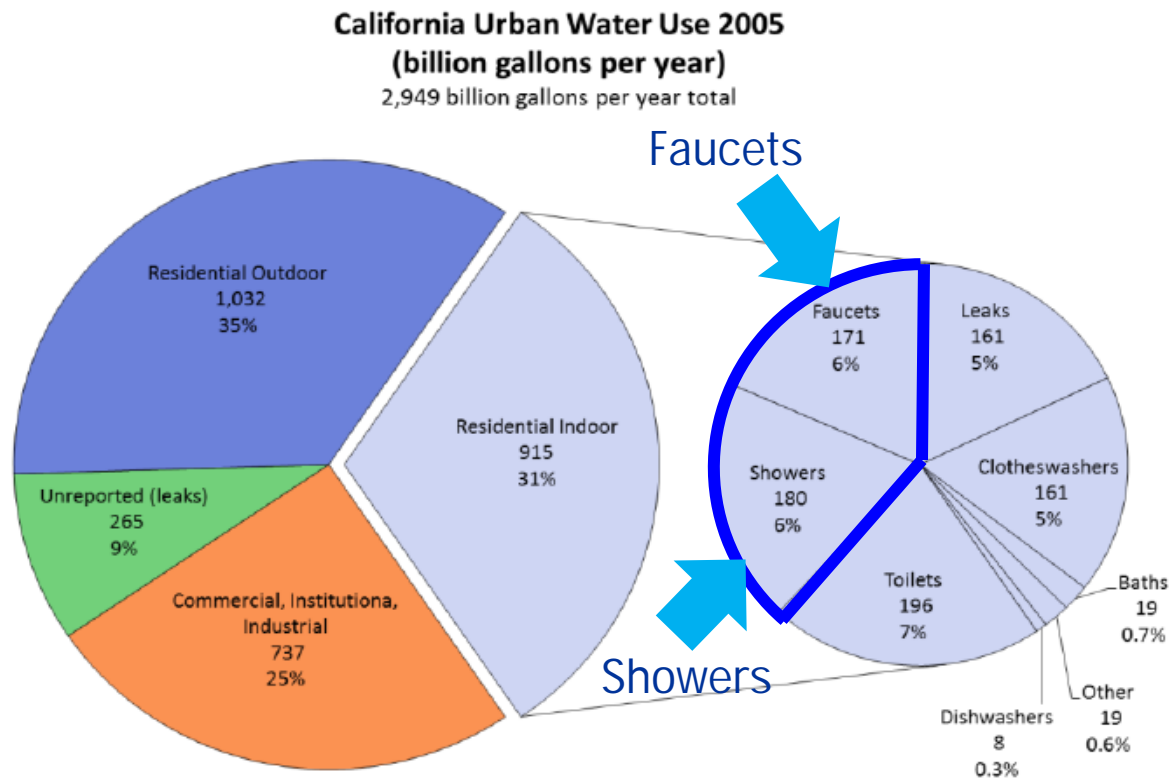


# Water Conserving Appliance Standards

- **January 17, 2014**
  - Governor Brown proclaimed a state of emergency
- **April 1, 2015**
  - Governor Brown issued Executive Order B-29-15
  - Authorizes Energy Commission to adopt emergency regulations establishing standards improving efficiency of water appliances
- **April 8, 2015**
  - Energy Commission adopted emergency water efficiency standards
    - ✓ Toilets, Urinals, Kitchen and Lavatory Faucets
  - Standards become effective January 1, 2016
- **July 28, 2015**
  - Workshop to discuss lavatory faucet and showerhead efficiency standards

Energy Commission granted emergency powers to respond to unprecedented drought conditions

# Faucets and Showerheads account for one third of all Residential Indoor Water Use



Source: Christian-Smith, Heberger, Luch (2012)

[http://www.pacinst.org/reports/urban\\_water\\_demand\\_2100/full\\_report.pdf](http://www.pacinst.org/reports/urban_water_demand_2100/full_report.pdf)

**Faucets and Showerheads  
represent significant opportunity for water savings**



# April 8, 2015 Appliance Standard Rulemaking

## CALIFORNIA HAS



**45+** MILLION FAUCETS  
**30** MILLION TOILETS  
**1** MILLION URINALS

## CALIFORNIA CONSUMES

**443** BILLION GALLONS  
of water per year

USING TOILETS, URINALS, AND FAUCETS

## NEW WATER STANDARDS WILL SAVE

**105.6** BILLION GALLONS  
per year

THAT'S NEARLY **ONE OUT OF EVERY FOUR** GALLONS



Savings equal to

**1.4** TRILLION GLASSES  
of water

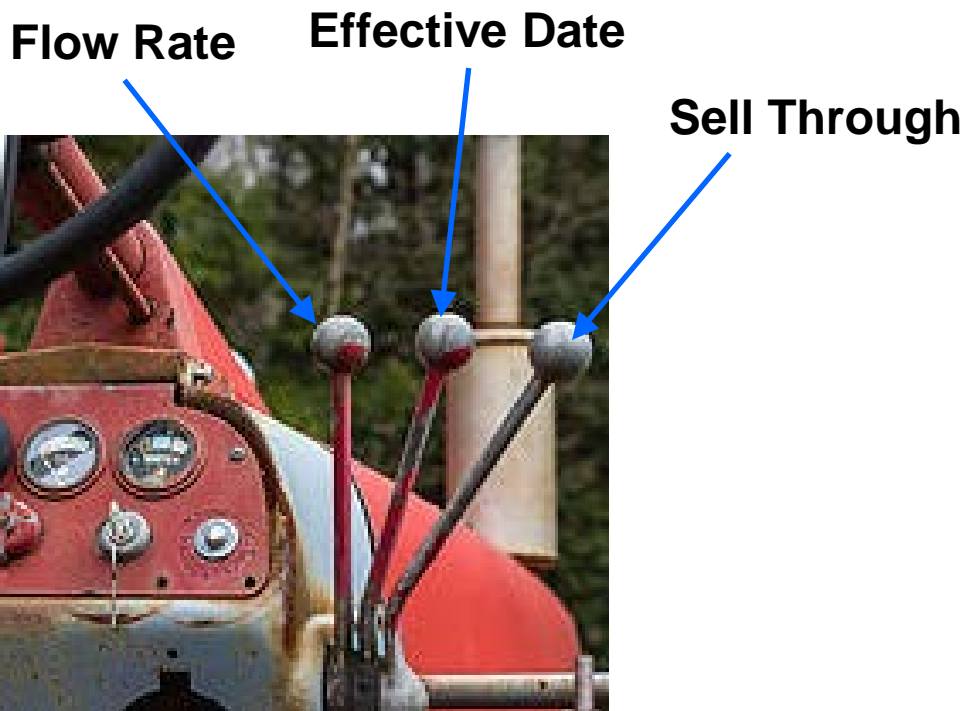


## Current 1.2 GPM Lavatory Faucet Standard

- Plumbing Manufacturers International (PMI)
  - Availability concern regarding 1.2 GPM lavatory faucets by January 1, 2016
- Staff investigation
  - 64 of 5,785 lavatory faucet models in Commission database
    - Meet 1.2 GPM maximum flow rate and
    - Are intended for residential use
  - 1.2 GPM aerator deliveries to faucet manufacturers begin January 2016
  - Certification processes consume significant time, although some streamlining is possible
  - Faucet retailers order faucets 9-12 months in advance due to long global supply chains, product development and certification

# Goals for Amended Lavatory Faucet Standard

- Maximize water savings for Californians
- Maintain faucet availability to consumers and homebuilders
- Minimize burden to implement on manufacturers and retailers
- Obtain savings as early as possible due to drought conditions







# Staff Proposal for Amended Lavatory Faucet Standard

1. 1.2 GPM effective for products manufactured on/after July 1, 2016.
2. 1.5 GPM effective for products manufactured on/after September 1, 2015.

## Driving Factors:

- 1.5 GPM flow rate faucets widely available now
- Achieve immediate significant savings from the 1.5 GPM requirement compared to current 2.2 GPM standard
- Sell through minimizes disruption to retailers
- Alleviates risk to consumers that lavatory faucets will not be available in California stores on January 1, 2016



# Setting Minimum Standards for Showerheads Presents an Opportunity to Save Water

Previous Emergency Drought Rulemaking did not modify  
showerhead maximum flow rate (2.5 GPM)

## Existing Showerhead Standards

Code/Standard	Section	Maximum Flow Rate (GPM)	Pressure (psi)
Title 20	1605.1(h)(1)	2.5	80
CALGreen	4.303.1.3.1	2.0	80
CA Plumbing Code	CA 408.2	2.0	80
WaterSense	3.1.1	2.0	80

Setting the Title 20 showerhead standard to 2.0 GPM  
would align standards



## Proposed Showerhead Efficiency Standard

- All showerheads shall not exceed 2.0 GPM maximum flow rate with pipe pressure at 80 pounds per square inch (psi)
- All showerheads shall have a minimum flow rate of 60 percent of the maximum flow rate at 20 psi
- All showerheads shall have a minimum flow rate of 75 percent of the maximum flow rate at 45 psi
- Effective for products manufactured on /after January 1, 2016

## Scope of Showerhead Standard

- Showerhead definition to remain unchanged in scope:
- Applies to fixed and handheld showerheads, and body sprayers

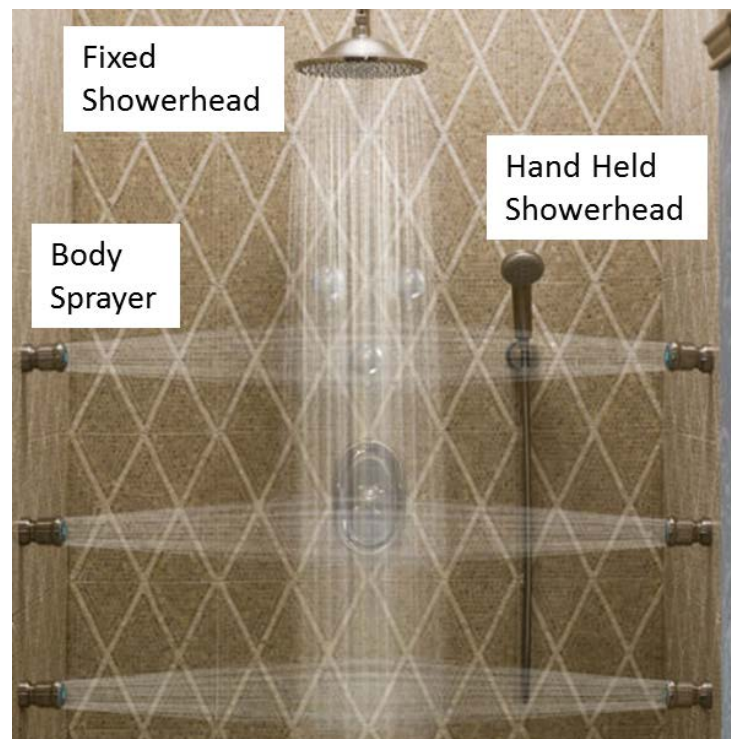


Photo Credit: American Standard



# Proposed Showerhead Test Procedures

- Maximum flow rate procedure per federal test method (no change)
- Minimum flow rate procedure per ASME A112.18.1/CSA B125.1-2012, Section 5.12



# Benefits of Showerhead Efficiency Standard

- Saves 24 Billion Gallons after full stock turnover.
- Immediate energy, water, and monetary savings to consumers.
- Aligns Title 20 Appliance Standards with CALGreen, CA Plumbing Code, and WaterSense.
- Consumer acceptance
- Thermal shock addressed with minimum flow requirement at low pressure.



# Comment Process

- ☐ Comments due **July 31, 2015 by 4:00 pm**
- ☐ Submit comments electronically:
  - ☐ Go to: <http://www.energy.ca.gov/appliances/2015-AAER-05/rulemaking/>
  - ☐ Click on the "Submit eComment" link
- ☐ Or send a hard copy to:

California Energy Commission  
Dockets Office, MS-4  
Re: Docket No. 15-AAER-05  
1516 Ninth Street  
Sacramento, CA 95814-5512
- ☐ Or send a digital copy to:

[docket@energy.ca.gov](mailto:docket@energy.ca.gov)

Please include Docket No. 15-AAER-05 in the subject line.



# Thank you!

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