



California Energy Commission

# Landscape Irrigation Efficiency Standards & Labeling

## Efficiency Committee Workshop

Sacramento, CA

April 1, 2009

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Efficiency and Renewable Energy Division

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**DOCKET**

09-AAER-1A

DATE April 01 2009

RECD. April 10 2009



## Announcements

- Facilities and Logistics
- Call-in Participation
  - Call-in number: **888-469-1980**
    - Passcode: **Irrigation**
    - Call Leader: **Lorraine White**
  - Follow along on the Webcast: **[www.energy.ca.gov](http://www.energy.ca.gov)**
- In-person Participation
  - Blue Cards





# Agenda

- Overview of AB 1881
- Irrigation Devices and Recommendations
- Testing Protocols
- EPA's WaterSense™ Program and Irrigation Efficiency
- Efficiency Efforts Elsewhere in the Country
- DWR's Program: the Model Landscape Ordinance
- Landscape Irrigation Best Management Practices
- A Practitioners Point of View
- Local Agency Perspectives and Recommendations
- An Electric Utility Interest in Water Efficiency
- Public Comments



# Landscape Irrigation Efficiency

- Requirements of AB 1881 (Laird, Chapter 559, Statutes of 2006)
  - Energy Commission
    - Efficiency performance standards and labeling requirements for controllers and sensors by January 1, 2010
    - Report schedule for emitters and valves to Legislature
    - Prohibit sale or installation of non-compliant equipment by January 1, 2012
  - DWR
    - Update Model Landscape Ordinance
  - Local Agencies
    - Adopt Model Ordinance or better by January 1, 2010
    - Separate meters for certain new connections by January 1, 2008



## California Energy Commission

# Broad Support

**Association of CA Water Agencies**

**CA Association of Nurseries &  
Growers**

**CA Farm Bureau Federation**

**CA Landscape Contractors  
Association**

**CA Sod Producers Association**

**CA Urban Water Conservation  
Council**

**Council for a Green Environment**

**Delta Bluegrass Company**

**East Bay Municipal Utilities District**

**Eastern Municipal Water District**

**Friends of the River**

**Irrigation Association**

**Metropolitan Water District of  
Southern CA**

**Mono Lake Committee**

**Natural Resources Defense Council**

**Olivenhain Municipal Water District**

**Planning and Conservation League**

**San Diego County Water Authority**

**Santa Clara Valley Water District**

**Sonoma County**

**Sierra Club**

**Water Replenishment District of  
Southern CA**



## But Why the California *Energy* Commission?

Charged with

- Licensing thermal power plants 50 MWs and larger
- **Adopting appliance and building energy efficiency standards**
  - **first adopted standards on plumbing products (showerheads, faucets) in late 1977, which first took effect December 22, 1978**
- Forecasting state energy use
- Conducting public interest energy research
- Maintaining energy information and performing analysis
- Proposing to the Governor integrated state energy policies
- Renewable energy development incentives and policies



# Efficiency Standards & Labeling

- Appliance Efficiency Regulations, (California Code of Regulations, Title 20, Sections 1601 through 1608)
- Public Resources Code sec 25402(c), requires the CEC to set standards:
  - for all appliances that use a significant amount of energy or water
  - that are feasible, and must reduce energy or water demand growth
  - that are cost-effective to consumers over the life cycle of the appliance
- AB 1881's Purpose - reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy **OR** water



# Water-Energy Policies

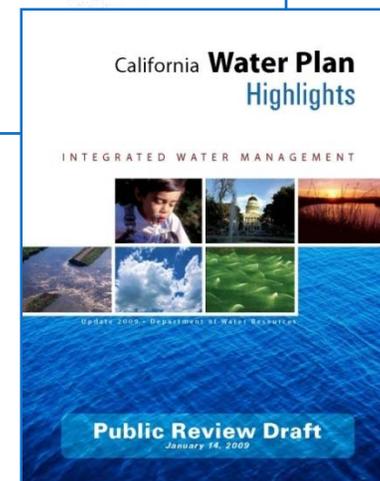
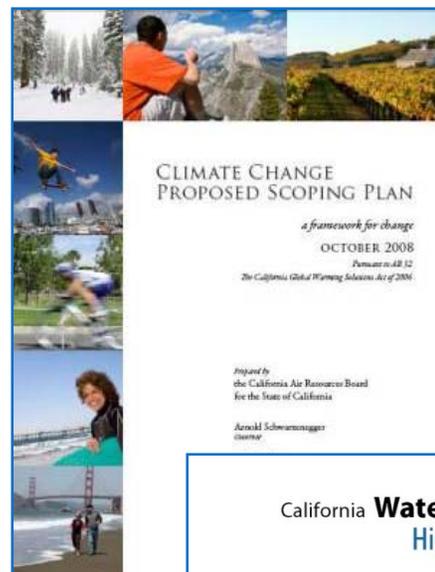


- 2003 IEPR - Power Generation
  - Non-fresh Supplies or Alternatives
  - ZLD
- 2005 IEPR – System and End Use Conservation and Efficiency
  - Saving Water Saves Energy
  - Reduce Peak Demand
  - Renewable and Self-Generation
- 2007 IEPR – Tools and Implementation
  - EM&V



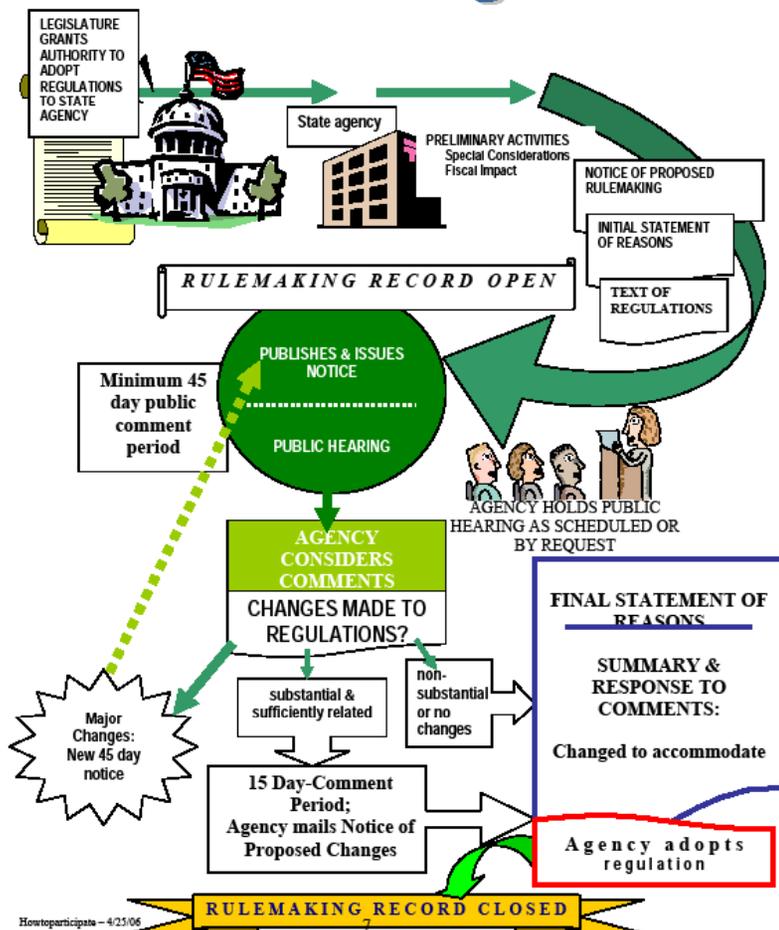
# Implementation of Laws & Policies

- California Constitution and statutes
- ARB Scoping Plan
  - Water Conservation is expected to reduce GHG's by 1.4 MMTCO<sub>2</sub>e by 2020
- Governor's call for a 20% reduction in water demand by 2020
- State Water Plan – Use and reuse water significantly more efficiently





## The Rulemaking Process



## Phases

- Preliminary Activities
  - Scoping
  - Information and data collection
  - Public outreach
  - Analyses and supporting documents
  - Draft Language
    - Define standard, test methods & labeling requirements
- Official Rulemaking
  - Publish Notice
  - Public Hearing(s)
  - Agency Adopts Regulations
- OAL Review



# Issues to Address

- How to compare performance of equipment (i.e., "dumb" and "smart" controllers) ?
- What considerations should be included in the cost-effectiveness evaluation?
- What studies and assessments should the Commission rely upon?



- Question of Enforcement - Manufacturers must certify to the Commission they meet the standards in order to sell in the state [Sect. 25402 (c)(1)].
  - How best do we enforce installation requirements?
- **ISSUES YOU RECOMMEND WE ADDRESS**



## Input & Participation

- Comments regarding Scope
  - Submit by 5:00 p.m. on Wednesday, April 8, 2009
  - Include the docket number 09-AAER-1A and indicate “2009 Irrigation Equipment Performance Standards and Labeling Requirements Proceeding Scope” in the subject line
- Public Adviser’s Office at (916) 654-4489 or (800) 822-6228 or by e-mail at [pao@energy.state.ca.us](mailto:pao@energy.state.ca.us)
- Contribute studies and information
- Service list
- Future workshops and meetings





## California Energy Commission

# Schedule

Phase	
Preliminary Activities	Hold Workshop: April 1, 2009 Publish Scoping Order: May 1, 2009 Technical Workshop #1: May 2009 Technical Workshop #2: June 2009 Staff Report: July 2009
Formal Rulemaking	Target date to publish proposed regulations in the registry: Aug 14, 2009 Public hearing: week of September 14, 2009 Revise language if needed and publish for comments: October – November 2009 Commission Approval: Dec 16, 2009
OAL Review	Submit final packet to OAL: Jan 4, 2010 OAL decision: Feb 18, 2010



## Proceeding Information

- Energy Commission's Website:
  - <http://www.energy.ca.gov/appliances/irrigation/>
- General information: Lorraine White
  - [lwhite@energy.state.ca.us](mailto:lwhite@energy.state.ca.us)
  - 916 654-4075
- Office of Administrative Law
  - [http://www.oal.ca.gov/reg\\_notice.htm](http://www.oal.ca.gov/reg_notice.htm)
- Department of Water Resources
  - <http://www.owue.water.ca.gov/landscape/ord/updatedOrd.cfm/>





## California Energy Commission

# Questions ?

