



# New Homes Modification

April 19, 2012



# Housekeeping

- Attendees will be automatically muted upon entering the call
- At specific times during the meeting, participants will be able to ask questions and provide feedback
  - To create a “virtual line,” please type your name in the chat window of GoToMeeting
  - Once your name is called, you can mute/unmute your line by pressing \*6
  - You may also type your question in the chat box in the lower right corner of the screen and it will be answered in the order it was received
- Please do not place the call on hold
  - If you need to take a call, please disconnect from the conference line and call back when you are finished



# Meeting Objectives

- Explain the specification development process
- Review the draft specification
- Gather input on a path forward



# BACKGROUND



# What is WaterSense

- Voluntary partnership and labeling program launched by EPA in 2006
- Simple way for consumers to identify products and homes that use 20% less water and perform well
  - Specification for single family homes added in December, 2009
- Backed by EPA's efficiency and performance criteria
- Independently certified



# Specification Development Process





# WaterSense Labeling Support

**EPA relies on industry and other interested parties with experience in:**

- Design
- Manufacture
- Building
- Installation

**EPA and its stakeholders**

- Define performance attributes
- Establish performance and efficiency levels
- Develop procedures to evaluate the attributes



# Technical Analysis & Market Research

## 1. Technical analysis and market research

- How water-efficient products & homes are differentiated from their standard counterparts
- Existence of widely accepted performance and efficiency standards/specifications
- Water and cost savings from national adoption of the water-efficient product
- Environmental impacts
- Level of stakeholder support





# Notification of Intent

## 2. NOI to develop a specification

- Identify data gaps and research needs to stakeholders
- Solicit input and request further data on outstanding technical issues
- Begin working with stakeholders to define
  - Important performance attributes and evaluation methods (if none exist)
  - Correlation between performance and user satisfaction
  - Water efficiency and performance levels
- Work may be done through consensus-based standards development groups or through less formal stakeholder groups



# Draft Specification

## 3. Draft specification

- Issued when technical questions and information gaps are adequately addressed
- To the extent possible, based on existing standards and specifications
- Opportunity for formal public comment on specific product evaluation criteria and performance levels
- Released with a supporting statement
  - Provides rationale and justification for water efficiency and performance criteria
  - Indicates water savings potential
  - Describes cost-effectiveness for consumers



# Final Specification

- 4. Final specification
  - Consider and resolve comments received on draft specification
    - Publish compilation of public comments
    - Publish public meeting presentation and summary
    - Publish response to public comments
    - Revise supporting statement to reflect changes
  - Establish third-party infrastructure for certifying products/homes to meet specification criteria for water-efficiency and performance



# DRAFT SPECIFICATION FOR WATERSENSE LABELED NEW HOMES (VERSION 1.1)



# Why Are Modifications Necessary?

- Home building market is significantly different today than when the specification development process originally began
- New product technologies are available in the market place
- Lessons learned from the first two years of labeling new homes can be used to fine tune the criteria based on feedback
- Opportunity to expand the program to new builders and stakeholders



# Proposed Modifications

- **Scope**
  - Allow homes in multi-family buildings to earn the WaterSense label
  - Associated changes to various technical criterion, inspection, and certification elements
- **Update product requirements**
- **Adjust landscape design criteria**



# Certification Approach

**The draft specification applies the label to individual homes/units.**

- Maintains a consistent approach for the inspection/sampling protocol and certification system
- Applies certain requirements to specific common-use areas that tend to be large contributors to total water use
  - Landscape design
  - Common use laundry rooms
  - Education & maintenance
  - Irrigation

# Checklists

## WaterSense® Labeled New Home Inspection Checklist

Site Information															
Builder Name:															
Lot Number/Street Address/Unit Number:															
City, State, Zip:															
Inspection Information															
Inspection Company:															
Inspector Name:															
Date:															
Time Started:		Time Completed:													
<p>Is this home being sampled and inspected as part of a sampling protocol for multiple homes in a planned community, subdivision, or multi-family building?  <small>(Were the first 7 homes in this planned community, subdivision, or multi-family building all directly inspected and certified?)</small></p> <p>Was this home randomly selected for sampling from a group of 7 homes that are scheduled for completion within 90 days of one another? <small>(Provide additional information as indicated below for the homes covered by this sampling protocol.)</small></p>															
<table border="1"> <thead> <tr> <th colspan="2">Building Information</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td colspan="4">Is the home being inspected as a unit within a multi-family building?</td> </tr> <tr> <td colspan="4">If yes, are all applicable building requirements met? <small>(Provide responses to the requirements listed below. See Appendix D of the specification for building criteria.)</small></td> </tr> </tbody> </table>				Building Information		Yes	No	Is the home being inspected as a unit within a multi-family building?				If yes, are all applicable building requirements met? <small>(Provide responses to the requirements listed below. See Appendix D of the specification for building criteria.)</small>			
Building Information		Yes	No												
Is the home being inspected as a unit within a multi-family building?															
If yes, are all applicable building requirements met? <small>(Provide responses to the requirements listed below. See Appendix D of the specification for building criteria.)</small>															
Item	Criteria	Yes	No	NI	Doc <sup>1</sup>										
Metering	3.9 WaterSense® labeling for each unit				Req.										
Common-use clothes washers	3.7.2 ENERGY STAR® qualified Water Factor ≤ 6.0				Req.										
Notes on Multi-Family Building Criteria:															
By affixing my signature below, I do hereby declare that I have inspected the home in accordance with the 2012 WaterSense New Home Specification and the Inspection and Verification Guidance for WaterSense Labeled New Homes and will provide, if requested, the necessary supporting documents.															
Inspector Name:		Company:													
Signature:		Date:													

<sup>1</sup> Not installed  
<sup>2</sup> Documentation to be provided by the builder

## WaterSense® Labeled New Home Irrigation Audit Checklist

Site Information	
Project Address:	
Audit Information	
Inspected by a WaterSense Irrigation Partner? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Inspector Name:	
Company Name:	
Date:	

Signature below, the undersigned does hereby declare that the irrigation system homes, as specified in the *WaterSense New Home Specification* and the *Guidelines for WaterSense Labeled New Homes*, have been met and, if provide the necessary supporting documents.

## WaterSense® Labeled New Home Inspection Checklist – Additional Information for Units Covered by a Sampling Protocol in Multi-Family Buildings

Lot Number/Street Address of Building				
Unit Number	Date		___/___/___	
Have all prerequisites been met for the building this unit is located in?		Yes	<input type="checkbox"/>	
No, this unit is being occupied prior to final building inspection.		No	<input type="checkbox"/>	
Date unit is labeled (must be after building inspection).		___/___/___		
Item	Criteria	Yes	No	Doc
Occupant Operating Manual	5.1 Written operating and maintenance manual (or chapter) for all water-using equipment/controls installed in house, unit, yard, or common-use outdoor area			Req.
Lot Number/Street Address of Building				
Unit Number	Date		___/___/___	
Have all prerequisites been met for the building this unit is located in?		Yes	<input type="checkbox"/>	
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# Overview

**Questions or comments?**



Proposed modifications

# SCOPE & MULTI-FAMILY



# Scope

## Current scope applies to:

- Newly constructed single-family homes and townhomes, three stories or less in size

## Draft scope:

Newly constructed homes that are

- *Single family homes and townhomes*

OR

- *Residential units in multi-family buildings three stories or less in size*

OR

- *Residential units in multi-family buildings, including mixed-use buildings, that have independent heating, cooling, and hot water systems separate from other units*



## Scope & Multi-Family

Why allow homes in multi-family buildings to pursue the label?

- *Requests from partners*
- *The multi-family building industry has shown greater growth in recent years*
- *Supports other agency priorities*



# Service Pressure

## **Current:**

Requires static service pressure to be at 60 psi or less through

- Use of a pressure-regulating valve
- Documentation from the public water supplier

## **Draft:**

Clarifies that the pressure requirement applies to water delivered inside of the unit



# Hot Water Delivery

## **Current:**

Requires systems to be designed to store no more than .5 gallons between the *source of hot water* and the furthest fixture

- Requires that circulation pumps be demand initiated
- Prohibits the use of timer and temperature triggered systems

## **Draft:**

Maintains this requirement



# Common Use Laundry Rooms

## **Current:**

Requires clothes washers (if included) to be ENERGY STAR qualified with a water factor of less than 6.

## **Draft:**

Clarifies that clothes washers in common use laundry rooms must also meet this requirement.



# Metering

## **Draft:**

Requires that each unit in a multi-family building be individually metered or equipped with an alternate technology capable of tracking water use and making the information available to the residents of the specific unit





# Landscape Criteria

## **Current:**

Requires that the front yard be landscaped and applies criteria to any other area improved upon by the builder

## **Draft:**

In multi-family buildings, clarifies that the landscape criteria (section 4) applies to all improved upon common use areas

Excludes from landscapable area:

- Areas reserved for the private use of a particular resident (deeded, limited-use common elements, etc.)



# Swimming Pools

## **Current:**

- Pools are factored into the landscape design

## **Draft:**

Common use pools in multi-family buildings are not included in the landscape design plans but must be

- Independently metered/submetered
- Have gutter or grate collection system
- Have sorptive media or cartridge filtration



# Irrigation System Meters

## **Current:**

Single family home irrigation systems (if installed) are not required to be submetered

## **Draft:**

Irrigation systems in multi-family buildings servicing common use areas must be independently metered/submetered



## Scope & Multi-Family

**Questions or comments?**



Proposed modifications

# PRODUCT REQUIREMENTS

# Showerheads

## Current:

Allows for a maximum combined flow rate of 2.5 gpm

- Larger compartments can receive an additional 2.5 gpm if they meet certain size requirements

## Draft:

Requires that all showerheads be WaterSense labeled

- Larger compartments can receive an additional 2.0 gpm if they meet certain size requirements





# Irrigation Controller

## **Current:**

Requires that irrigation systems (if installed) include a controller with multiple feature requirements

## **Draft:**

Requires that if a weather based irrigation controller is used, it must be WaterSense labeled

- Feature requirements have been adjusted slightly to reflect changes in the weather based irrigation controller specification
- Sensor based irrigation controllers may continue to be used provided they meet all feature requirements
- An enforcement date for requiring that weather based irrigation controllers be labeled will be established based on discussions with stakeholder, manufacturers, and certifying bodies



# Product Requirements

**Questions or comments?**





Proposed modifications

# LANDSCAPE DESIGN



# Landscape Design

## **Current:**

Two options for complying with landscape requirements:

- Option 1: Regionally-based allocations determined using EPA's water budget tool
- Option 2: Maximum turf allocation determined using a set percentage (40%) of the landscaped area

## **Draft:**

Requires use of the water budget tool



# Landscape Design

## Water Budget Tool:

- Allows for more flexibility in landscape design
- Can be applied to a broader range of landscapes
- Takes into account local weather patterns
- Rewards projects for making more efficient design and irrigation choices



# Landscape Design

## Water Budget Tool:

- After two years of use the water budget tool is more familiar and comfortable to many stakeholders
- Now available in easier to use online format
- Has been used in the vast majority of WaterSense labeled homes to date
- Harmonized with the LEED for Homes 2012 rating system



# Landscape Design Requirements

**Questions or comments?**

# Additional Information

- WaterSense Information
  - Web site: [www.epa.gov/watersense](http://www.epa.gov/watersense)
  - Future updates:  
[http://www.epa.gov/watersense/new\\_homes/homes\\_final.html](http://www.epa.gov/watersense/new_homes/homes_final.html)
- For questions or to submit technical information:
  - E-mail: [watersense-homes@epa.gov](mailto:watersense-homes@epa.gov)
  - Toll-free Helpline: (866) WTR-SENS  
– 1(866) 987-7367

