WaterSense® Labeled Homes

Version 2.0

Jonah Schein
November 19, 2020
"Leaning In" to 2020

Meet Jilly
• 5.5-year-old American Staffordshire Terrier rescue
• Likes:
  • Belly rubs
  • Long walks
  • Car rides
  • Interrupting webinars at the most inopportunete times
• Dislikes:
  • Squirrels
  • Wasting water (especially with baths)
Agenda

- A little looking back, a little looking ahead
- Updated certification process
- Version 2 technical requirements
- Version 2 pilot program
- Examples of Version 2 requirements
Where We’ve Been, Where We’re Going?

What we thought 5-6 years ago:

- Rising cost of water
- Increased outdoor water restrictions
- More stringent code

What Will This Mean?

- Rising costs for water and sewer
  - Higher utility bills
  - Larger connection fees
- Increased use of outdoor water restriction
  - Designated watering days
  - No new planting
  - Water budget based billing
  - No outdoor water use
- More stringent code
  - More efficient plumbing products
  - Strict permitting & development policies
Why Water Matters to the Building Industry in 2020

➢ Cost of water
  • Average cost of water has continued to rise, this trend is likely to continue
  • Largely driven by capital infrastructure spending

➢ Being responsible stewards of water is an important part of the building industry’s social license to operate
  • New homes frequently bear a large part of the conservation burden because they represent a substantial new demand to the community

➢ Water is an increasingly important part of the land entitlement process
  • Availability of water/service connections is frequently the deciding factor in a site’s viability

➢ Corporate disclosure & reporting
  • Investors are increasingly interested in these issues as a potential risk to business operations (both from an ESG and financial perspective)
Last Year Around This Time…

- Planned to release all revised elements late 2019/early 2020
  - Update certification and technical requirements
  - First major update to both since 2009
- V2 currently available in pilot form
- Still plan to release final V2 for 2021 (minimal changes from the draft)
“Modernizing” the Certification Infrastructure

- WaterSense released the updated Certification System in May, 2020
  - Titled as “version 1.3” but is essentially the same in spirit as what we had intended to release as the “version 2.0” certification system
- The certification system is essentially agnostic to the technical requirements
- Focuses on organizational and system capacity for oversight of the WaterSense label
  - Creates a more consistent approach with WaterSense labeled products and revisions to the ENERGY STAR Certified Homes certification requirements
- Will facilitate participation of other Home Certification Organizations (HCOs)
- Streamlines participation for existing builder, provider, and rater partners
RESNET was approved as the first WaterSense HCO this past summer

Has been our sole certification partner ('program administrator') since 2009

RESNET is transitioning from “WaterSense providers” to using “HERSh2o providers” to conduct oversight of WaterSense labeled homes

- All HERSh2o providers, raters, and RFIs will be able to do WaterSense certifications

Reporting is integrated into the HERSh2o registry

- Currently this happens via xml schema in the HERSh2o excel worksheet, ultimately it will be handled by software

Brief training is available for raters and RFIs on the RESNET training portal
WaterSense Home Verifiers

- Raters/RFIs earn the title “WaterSense Home Verifier” after completing the required training
- Will be listed in a searchable tool on the WaterSense website
- RESNET will provide this information directly to EPA
  - No additional action needed by the rater
Will be searchable by

- Name
- Company
- Location
- HCO*

*once additional HCOs are approved
What Do I Need to Do?

 Builders
• Existing: No action required (existing partnership agreement carry forward)
• New: Sign up as a WaterSense builder partner at no cost
• Consider participating in the V2 pilot to take advantage of flexibility and get ready for the new requirements

 Raters/RFIs
• Take the HERSh2o and WaterSense training on the RESNET training portal

 Providers
• Existing: Sign up as a HERSh2o provider by the end of 2020
• New: Sign up as a HERSh2o provider

 Others
• If you work through a different home certification system stay up to date as we onboard more HCOs
# Indoor Checklist

**Current Version 1.2**

## Low-hanging fruit: simple to implement and verify

- **Leaks**
  - Pressure loss test on all water supplies: detected no leaks
  - No visible leaks from hot water delivery system
  - No visible leaks from toilets/urinals
  - No visible leaks from bathroom faucets
  - No visible leaks from kitchen faucets
  - No visible leaks from showerheads
  - No visible leaks from other fixtures or appliances

## Items that require basic documentation or on-site verification

- **Service pressure**
  - Single-family: Pressure tank installed and set ≤ 80 psig OR single-family: PRV installed upstream of fixtures and pressure test ≤ 60 psig OR
  - Single-family: Pressure test ≤ 60 psi and written documentation from water supplier that pressure ≤ 60 psi
  - Multi-family: Pressure test ≤ 60 psi

- **Hot water delivery**
  - Acceptable system type
  - 120°F temperature change within ± 0.6 gallons

- **Toilets**
  - WaterSense labeled

- **Flushing urinals**
  - WaterSense labeled

- **Showers and faucets**
  - WaterSense labeled

- **Showerheads**
  - Measured flow rate—minimum 2.0 gpm water per shower compartment ≤ 2.100 in\(^2\) (Flow test maximum: 0.36 gallons per minute)

- **Dishwashers**
  - ENERGY STAR qualified

- **Clothes washers**
  - ENERGY STAR qualified

## Items that require coordination and planning w/ builder

- **Evaporative cooling system**
  - Acceptable system type
  - Maximum 3.5 gal/water/fan hour cooling, maximum 3 blowdowns in 24 hours

- **Water coolers**
  - Certified to NSF/ANSI Standard 44, including voluntary efficiency rating standards in Section 7

- **Drinking water**
  - Reg.

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![Image of checklist pages](image-url)
**Outdoor Criteria**

<table>
<thead>
<tr>
<th>Item</th>
<th>Section</th>
<th>Home or Unit Criteria</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Req</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Landscape design</strong></td>
<td>4.1</td>
<td>Single-family: Front yard landscaped</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>All improved areas landscaped</td>
<td></td>
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<td></td>
<td></td>
<td>Temporary landscape installed</td>
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<tr>
<td></td>
<td>4.1.1</td>
<td>Landscapable area of lot ≤ 1,000 m² and exempt from landscape design criteria</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>4.1.1</td>
<td>Water budget tool calculations verified</td>
<td></td>
<td></td>
<td>Req</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Landscape complies with water budget design</td>
<td></td>
<td></td>
<td>Req</td>
<td></td>
</tr>
<tr>
<td><strong>Slopes</strong></td>
<td>4.1.2</td>
<td>Slopes ≥ 4:1 are vegetated</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Mutiling</strong></td>
<td>4.1.3</td>
<td>No exposed soil</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>All mulch is 2 to 3 inches deep</td>
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<tr>
<td><strong>Pools/spas</strong></td>
<td>4.1.4</td>
<td>Single-family: Cover installed</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Multi-family: Independently metered</td>
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<td></td>
<td></td>
<td>Multi-family: Butt or grate system</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Multi-family: Siphonic media or cartridge filtration system</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ornamental water features</strong></td>
<td>4.1.5</td>
<td>Recirculates water and serves beneficial use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Irrigation system</strong></td>
<td>4.2</td>
<td>WaterSense labeled weather-based irrigation controller or approved soil moisture sensor-based controller</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multi-family: Independently metered</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Designed or installed by an irrigation professional certified by a WaterSense labeled program</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Provided design for design/installation</td>
<td></td>
<td></td>
<td>Req</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>System supplied by certified irrigation professional</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Irrigation System Audit Checklist completed by certified irrigation professional</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Provided water for audit</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Low-hanging fruit:** simple to implement and verify

**Items that require basic documentation or coordination w/ irrigation professional**

**Items that require coordination and planning w/ builder**
### Resident/Home-owner Manual

<table>
<thead>
<tr>
<th>Item</th>
<th>Section</th>
<th>Home or Unit Criteria</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Doc</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Homeowner or Resident and Building Management Education Criteria</strong></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Single-family/occupant operating manual</td>
<td>5.2</td>
<td>Written operating and maintenance manual (or chapter) for all water-using equipment/controls installed in house, unit, yard, or common use outdoor area</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>General information on water-efficient dishwashers and clothes washers if they are not installed</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Building operating manual</td>
<td>5.3</td>
<td>Multi-family: Manual for all water-using equipment and controls outside of individual dwellings or inside of individual dwellings that are maintained by building management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrigation system</td>
<td>5.2</td>
<td>Schematic, itemized list of irrigation components, copies of irrigation schedules, and information on reprogramming schedules included in operating manual for homeowners of single-family homes and for building managers for multi-family buildings</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Pools/spas</td>
<td>4.1.4</td>
<td>Multi-family: Detailed information on filtration equipment and manufacturer’s recommended maintenance schedule to building management</td>
<td></td>
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</tr>
</tbody>
</table>

**Notes on Homeowner Education Criteria**
### Irrigation Audit Checklist

<table>
<thead>
<tr>
<th>Item</th>
<th>Section</th>
<th>Criterion</th>
<th>Yes</th>
<th>No</th>
<th>NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor Water Efficiency Criteria–Irrigation System Design</td>
<td>4.2.1</td>
<td>Designed or installed by certified irrigation professional</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Name of professional:</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Waiver provided for design/installation</td>
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<tr>
<td></td>
<td></td>
<td>Name of designer/installer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaks</td>
<td>4.2.3</td>
<td>System operates without leaks (checked during audit)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Over spray</td>
<td>4.2.4</td>
<td>System prevents runoff and overspray from leaving the property (checked during audit)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>DU90</td>
<td>4.2.5</td>
<td>Is 65% or greater (determined by catch can test during audit)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Rain shut-off device</td>
<td>4.2.6</td>
<td>System includes a technology that inhibits or interrupts operation of the irrigation system during periods of rainfall or sufficient moisture (e.g., rain sensors, soil moisture sensors)</td>
<td></td>
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</tr>
<tr>
<td>Irrigation controller</td>
<td>4.2.7</td>
<td>WaterSense labeled weather-based controller or soil moisture sensor-based controller with the following capabilities in both smart and standard mode:</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>◦ The controller shall be capable of preserving the contents of the irrigation program settings when the power source is lost and without relying on an external battery backup</td>
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<tr>
<td></td>
<td></td>
<td>◦ The controller shall either be capable of independent, zone-specific programming or storing a minimum of three different programs to allow for separate schedules for zones with differing water needs</td>
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<tr>
<td></td>
<td></td>
<td>◦ The controller shall be capable of indicating to the user when it is not receiving a signal or local sensor input and is not adjusting irrigation based on current weather or soil moisture conditions</td>
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<tr>
<td></td>
<td></td>
<td>◦ The controller shall be capable of interfacing with a rainfall device</td>
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<td></td>
<td></td>
<td>◦ The controller shall be capable of accommodating watering restrictions as follows:</td>
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<tr>
<td></td>
<td></td>
<td>◦ Operation on a prescribed days/week schedule</td>
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<tr>
<td></td>
<td></td>
<td>◦ Either even-day or odd-day scheduling, or any day-interval scheduling between two and seven days</td>
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<tr>
<td></td>
<td></td>
<td>◦ The ability to set irrigation runtimes to avoid watering during a prohibited time of day (e.g., between 3:00 a.m. and 7:00 a.m.)</td>
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<td></td>
<td></td>
<td>◦ Complete shut-off (e.g., on/off switch) to accommodate outdoor irrigation prohibition restrictions</td>
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<tr>
<td></td>
<td></td>
<td>◦ The controller shall include a percent adjust (water budget) feature</td>
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<tr>
<td></td>
<td></td>
<td>◦ If the primary source of weather or soil moisture information is lost, the controller shall be capable of reverting to either a proxy of historical weather data or a percent adjust (water budget) feature</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes on Irrigation System Criteria

- Have a 4-inch or greater pop-up height and matched precipitation. Note: This excludes components of a micro-irrigation system.

* Primarily completed by an irrigation professional if an irrigation system is installed.
Additional Checklists for Multifamily Units

### Lot Number/Street Address of Building

<table>
<thead>
<tr>
<th>Unit Number</th>
<th>Date</th>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
<th>Doc</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Have all prerequisites been met for the building in which this unit is located?</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Date is labeled (must be after building inspection)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Item | Section | Criteria | Yes | No | Doc |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operators Operating Manual</td>
<td>5.1</td>
<td>Written operating and maintenance manual (or chapter) for all water-using equipment, controls, or hardware installed in house, unit, yard, or common-use outdoor area</td>
<td>Required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Lot Number/Street Address of Building

<table>
<thead>
<tr>
<th>Unit Number</th>
<th>Date</th>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
<th>Doc</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Have all prerequisites been met for the building in which this unit is located?</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Date is labeled (must be after building inspection)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Item | Section | Criteria | Yes | No | Doc |
<table>
<thead>
<tr>
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<th></th>
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<tbody>
<tr>
<td>Operators Operating Manual</td>
<td>5.1</td>
<td>Written operating and maintenance manual (or chapter) for all water-using equipment, controls, or hardware installed in house, unit, yard, or common-use outdoor area</td>
<td>Required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Challenges With V1

- Prescriptive requirements create too many potential deal breakers
  - Stakeholders clearly voiced a desire for increased flexibility

- Some requirements are good practices, but don't necessarily demonstrate quantifiable or marketable benefits
  - Builders need to be able to quantify benefits to market their homes at an advantage
  - Communities need to be able to predict and measure the benefits (in terms of future demand reductions)

- Value proposition of fixed requirements is variable
  - Example: Outdoor requirement may save lots of water in a dry climate with year-round irrigation, but very little in a cooler climate with a short irrigation season
# Technical Requirements for V2

**MANDATORY CHECKLIST FOR WATERSENSE LABELED HOMES**

<table>
<thead>
<tr>
<th>Item</th>
<th>Requirements</th>
<th>Confirmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pressure-loss test on all water supplies detected no leaks</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td></td>
<td>Free of visible leaks from toilet(s), as determined through visual assessment and by conducting a dye tablet test in each toilet to ensure the flapper is not leaking</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td></td>
<td>Free of visible leaks from bathroom faucet(s)</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td></td>
<td>Free of visible leaks from showerhead(s)</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td></td>
<td>Free of visible leaks from bathroom tub faucet(s), i.e., tub spout(s), when showerhead(s) is activated, as determine through visual assessment after showerhead has been activated for one minute</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td></td>
<td>Free of visible leaks from kitchen and other sink faucet(s)</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td></td>
<td>Free of visible leaks from other fixtures or appliances (e.g., clothes washers, dishwashers, hose bibs, irrigation systems) at point of use or point of connection to water distribution system</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Toilets</td>
<td>WaterSense labeled</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Bathroom sink faucets</td>
<td>WaterSense labeled</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Showerheads</td>
<td>WaterSense labeled</td>
<td>□ Yes □ No</td>
</tr>
</tbody>
</table>

- Meet all items on the mandatory checklist
- Meet an efficiency target of 30% relative to standard new construction
Mandatory Checklist

• Ensures that all WaterSense labeled homes contain a minimum set of features that meet homeowners’ expectations for quality performance

• Criteria for checklist features
  • Basic measure of quality performance not represented by volumetric use
  • Universally applicable to homes regardless of market or climate
  • Easily attainable at little or no incremental cost

• Loss of quality-performance was identified as a risk of setting a standard based on performance efficiency

• Ensures some measure of balance in climates that are more likely to have high outdoor water use
What About Outdoors?

- Outdoor requirements don’t appear on the checklist
  - Can be used to meet the efficiency target
  - It is virtually impossible for many homes to meet the efficiency requirements without substantial outdoor efficiency measures
- Do outdoor measures meet checklist’s goals?
  - Universal applicability
  - Minimal incremental cost
  - Focus on quality-performance
What About Hot Water Distribution?

**Current Requirement**
1. Systems must be designed to store no more than 0.5 gallons of water between the source and furthest use of DHW
2. Systems are tested to a 10°C temperature rise in 0.6 gallons
3. Recirculation systems must be demand initiated

- DHW can be used to meet the efficiency target
- *Unless* you’re willing to place size limits on homes, it is difficult to meet the checklist’s goals for
  - Universal applicability
  - Minimal incremental cost
- Changes to code are starting to outpace the WaterSense requirement
Why a Percent Reduction/Performance Measure?

• Focuses on WaterSense’s primary objective: saving water
• Increases flexibility and adapts to regional differences
  • Allows builder to choose which technologies or practices best suit their process, market, and style
• Aligns impacts of specific measures with their quantifiable impacts
• Easily translates to water and cost savings
• Scales with climate
  • Reference home is consistent across all states/jurisdictions
Why 30 Percent?

• Maintains—or in some cases, increases—water savings compared to current requirements
• Establishes a level that, while rigorous, is still universally achievable in all markets and climates
  • Will apply even in markets with more efficient code requirements
• Provides a balance of indoor and outdoor measures that scale appropriately with climate
How do I Measure 30%?

- EPA allows HCOs to develop their own method of measuring water use
  - EPA retains the role of reviewing/approving each HCO’s method
  - This evaluation protocol is available on our website
- Currently, EPA has approved RESNET’s HERSh2o
- Goal is to efficiently work within the existing framework of potential HCOs while;
  - Ensuring certified homes actually meet the stated efficiency threshold
  - Protecting the integrity of the WaterSense program and label
Version 2.0 Pilot

• Multiple parties were anxious to start using V2
  • Provides an opportunity for proof of concept
• The current administration was interested in exploring consumer satisfaction with different products and technologies
  • The building industry plays an important role in market for plumbing products
  • Builders pay very close attention to homeowner satisfaction (which impacts their reputation and sales) by monitoring call backs (which are a significant post-delivery expense) and resolution activities
• EPA is working with current and potential HCOs to ensure a seamless transition from the pilot to final release of V2
RESNET V2 Pilot

- Allows the label to be earned by single-family homes that meet the draft V2 checklist and have a HERSh2o score of 70 or less
- Originally introduced in Las Vegas
  - Helps to fill a void left by the recently sunset WaterSmart Homes program
  - RESNET can expand the pilot to other areas at their discretion with proper notice to EPA
- Open to participation from future HCOs

First WaterSense labeled homes under V2 by KB Home
Pilot Feedback

• Programmatic feedback on V2
  • Ease of implementation, clarity of requirements, etc.

• Anonymized data that could indicate consumer satisfaction levels
  • Correlation of call backs to specific technologies or design strategies
  • Meant to access information that primarily already exists, not create new collection efforts
Using HERSh2o for WaterSense V2

- Long term the plan is to embed the calculations in rating software
- Current spreadsheet includes WaterSense checklist and export function to the RESNET registry
- Based on pilot feedback, HERSh2o rating AND WaterSense certification adds 30-60 minutes to existing rating
Getting to 30

3 bedroom
2 bath
2,400 ft$^2$
10,000 ft$^2$ lot
San Bernardino, CA

<table>
<thead>
<tr>
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<tr>
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Key influences on this home:
- Hot and dry
- Year-round irrigation
- Large lot size
San Bernardino, CA

<table>
<thead>
<tr>
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Mandatory checklist includes:
- WaterSense labeled plumbing products (toilets, showerheads, bathroom faucets)
- Basic leak detection
San Bernardino, CA

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Major version 1.2 indoor requirements:
- ENERGY STAR certified clotheswasher and dishwasher
- On demand hot water recirculation
  - System must be designed to store no more than 0.5 gallons of water
- Additional product and verification requirements not included here
San Bernardino, CA

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Major Version 1.2 outdoor requirements:
- WaterSense labeled controller
- Professional irrigation audit/commissioning
- Would also require the WaterSense Water Budget Tool, not included here
San Bernardino, CA

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Achieves WaterSense certification through:
- Mandatory checklist
- ENERGY STAR certified clotheswasher and dishwasher
  - No hot water recirculation
- Outdoor water use improvements
  - Reducing the irrigated area (the part of the landscape that requires supplemental irrigation) by 20%
  - WaterSense labeled controller
  - Professional irrigation audit/commissioning
- No Water Budget
Portland, ME

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Key influences on this home:
- Cool and wet climate
- Limited irrigation despite large lot size
- Cool climate increases the ratio of hot to cold water used
Portland, ME

**Reference Home** | **Mandatory Checklist**
---|---
Indoor | Outdoor | Indoor | Outdoor
Water Use (kgal/year) | 48.5 | 28.1 | 44.1 | 28.1
Rating | 100 | 95

Mandatory checklist includes:
- WaterSense labeled plumbing products (toilets, showerheads, bathroom faucets)
- Basic leak detection
Portland, ME

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Major version 1.2 indoor requirements:
- ENERGY STAR certified clotheswasher and dishwasher
- On demand hot water recirculation
  - System must be designed to store no more than 0.5 gallons of water
- Additional product and verification requirements not included here
## Portland, ME

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Major Version 1.2 outdoor requirements:
- WaterSense labeled controller
- Professional irrigation audit/commissioning
- Would also require the WaterSense Water Budget Tool, not included here
# Portland, ME

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Rating | 100 | 95 | 81 | 73 | 68 |

Achieves WaterSense certification through:
- Mandatory checklist
  - Further reducing plumbing product efficient (1 GPF toilets, 1.5 GPM showerheads, 1.5 GPM faucets)
- ENERGY STAR certified clotheswasher and dishwasher
- Hot water recirculation
- WaterSense labeled irrigation controller
  - No professional irrigation audit/commissioning or Water Budget
  - No reduction in irrigated area
What Version 2 Will Mean for You

- Hot water distribution requirement
  - No longer mandatory but can be used to meet efficiency target
- WaterSense water budget tool
  - No longer mandatory but landscape and irrigation technology can be used to meet efficiency target
- Certified irrigation professional
  - No longer mandatory but can be used to receive an audit/commissioning credit toward the efficiency target
- Better ability to quantify impacts of specific measures and the labeled home overall
Overview of Potential Benefits

- Reduce prescriptive requirements
  - Version 2.0 draft requires a single, short, easily achievable checklist
  - Version 1.2 requires multiple checklists and several requirements where difficulty and impact varied greatly by region and market

- Focus on primary goal of saving water
  - Efficiency requirement focuses on quantifiable water savings

- Allow for easier implementation and certification by using the organization and processes of existing HCOs
Questions?

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Email | watersense@epa.gov
Phone | (866) WTR-SENS (987-7367)