



The WaterSense® *Blueprint*

Issue VI, Summer 2015:

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IN THIS ISSUE

Summer is here—and so is your new issue of the *WaterSense Blueprint*!

You already know that new homes can earn the WaterSense label. But did you know that gut rehabs can, too? By meeting all the criteria in the ***WaterSense New Home Specification***, builders and remodelers can make sure a home is both high-performing and high-efficiency. Read more to learn how.

In this issue, we've included a new infographic that shows the benefits of a WaterSense labeled home. Use it in social media or materials to educate your customers on the value of the WaterSense label!

We also have a section highlighting news about WaterSense and trends and issues that are affecting the green building industry. Finally, our calendar of events lists items of interest for WaterSense partners and stakeholders.

As a reminder, we want the *Blueprint* to cover the topics you're most interested in, so please don't hesitate to let us know what future topics you'd like us to address. Email those and other comments to watersense@epa.gov.

TECHNICAL CORNER: "GUT REHAB" PROJECTS AND THE WATERSENSE LABEL

You might already know that new homes can earn the WaterSense label, but did you know that existing homes that undergo a gut rehab can also earn the WaterSense label?

When remodeling, many homeowners are looking for ways to make their homes as efficient, comfortable, and convenient as possible. Following the steps required in the ***WaterSense New Home Specification*** can help make homes at least 20 percent more efficient. In fact, compared to a typical home, a WaterSense labeled home can save a family of four 50,000 gallons of water a year or more! That's enough to wash 2,000 loads of laundry and could amount to utility bill savings of up to \$600 each year.

To be clear, the remodeling we're referring to isn't just a kitchen or a single bathroom remodel. In order to earn the WaterSense label, you'll typically have to make substantial changes to a home's plumbing system in addition to updating most water-using products, including the landscape. Less extensive renovation projects can still make use of WaterSense labeled products that are third-party certified for efficiency and performance. But for those looking for the full water efficiency package, the WaterSense label for the whole home is the way to go!

As with any new single- and multi-family construction, a WaterSense labeled rehab project needs to meet all the criteria listed in the **WaterSense New Home Specification** to earn the label, including installing WaterSense labeled fixtures, an efficient hot water distribution system, and meeting the specification's outdoor water use requirements.

There are some unique challenges in labeling a rehab project that don't exist with new construction. Below, we've highlighted some of the biggest considerations when renovating a home to earn the WaterSense label.

Delivering Hot Water Faster

When hot water moves through pipes that take circuitous routes, have a larger diameter than is necessary, or have excessively long runs, the plumbing system wastes both energy and water. It wastes energy because the water that was once hot is allowed to cool, and it wastes water because water goes down the drain while users wait for hot water to arrive. To address this problem, WaterSense allows for a maximum of 0.5 gallons of water to be stored between the source of hot water (which is typically the water heater) and the furthest fixture from it. This ensures that the hot water distribution systems in WaterSense labeled homes are both energy- and water-efficient, not to mention more convenient with less wait time for residents.

In new construction, designing and installing efficient hot water distribution systems can be a challenge, but at least you're starting with a clean slate. In a retrofit, you might be dealing with a plumbing system that's completely inaccessible (behind walls, under slab, etc.). In rehab projects, builders and remodelers will often have the plumbing exposed and can rework runs as necessary. But less extensive renovations will require troubleshooting to ensure the distribution systems meet the WaterSense criteria. Often times plumbing can be reworked through attics, basements, or other accessible areas. In these instances, it's best to keep piping inside the house's thermal envelope. It's also possible in some instances to retrofit an on-demand recirculation system (by installing a new return line or by using the cold water lines as the return) that gives residents the convenience of hot water at the touch of a button. Wireless motion sensors and push buttons allow for even greater flexibility and minimize the need for complicated wiring.

It's important to work with a qualified plumber who understands the options. WaterSense has created a **Guide for Efficient Hot Water Delivery Systems** to help builders, remodelers, and plumbers better understand and implement efficient plumbing system designs that save water, energy, and time waiting for hot water.

Rehabs and the Inspection and Certification Process

Another area where rehab projects receiving the WaterSense label deserve some special consideration is during the inspection and certification process. With new construction, the inspection timing is fairly well-defined, since it must take place after construction has been completed and with utilities turned on but before the house is occupied. With rehab projects, there's not always such a cut-and-dry window, so it's important to work with the inspector to maintain clear communication regarding schedules.

A couple of things to keep in mind are:

- The inspector will need the utilities (water, electric, and gas if using a natural gas water heater) on in order to conduct the inspection.
- The plumbing system will have to be "cold." This usually means that the plumbing can't have been used for several hours prior to when the inspection is going to occur.
- Many WaterSense licensed certification providers have their own policies regarding what they will and will not label and when a renovation is substantial enough to earn the label. So again, it's important to coordinate with the inspector and/or provider and have a clear plan in place for inspection and certification.

To learn more about how to earn the WaterSense label for either a new home or rehab, review the *WaterSense New Home Specification* and background materials on the **program website**.

NEW! INFOGRAPHIC ON THE BENEFITS OF A WATERSENSE LABELED HOME

WaterSense labeled homes aren't just efficient—they are also high-performing, allowing homeowners to do more with less! Use this **infographic** on websites and via social media to illustrate for your customers the benefits of a WaterSense labeled home.

Note that this infographic is on the password-protected WaterSense partners' website. If you need the username and password, please **email** the WaterSense Helpline. Not a partner? Joining is easy—**fill out a partnership agreement and become a partner**.



IN THE NEWS

WaterSense News

- April 24, 2015, *The Daily Courier*, **Why Hot Water Recirculation Systems Save Money, Water and Energy**
- April 22, 2015, *The Hutchinson News*, **Go with a Pro to be Sprinkler Savvy**
- April 16, 2015, *Los Angeles Times*, **Five Ways to Save Water in Your House Right Now**
- April 15, 2015, *East Bay Express*, **Get Creative about Conserving Water**
- April 8, 2015, *Consumer Reports*, **Use Less Water without Sacrificing Function or Flow**
- April 7, 2015, *U.S. News and World Report*, **Smart Ways to Trim Your Water Bill This Spring**

Trends and Issues Affecting Green Building

- April 13, 2015, *Contractor Mag*, **RESNET to Develop National Residential Water Efficiency Rating System**
- March 17, 2015, *Environmental Leader*, **Efficiency Rating System Scores Water Use in New Homes**

CALENDAR OF EVENTS

July 31, 2015: Q2 2015 WaterSense Quarterly Reporting Deadline

Make sure your licensed certification providers **report** to WaterSense on any of your homes that earned the WaterSense label during the second quarter (Q2) of 2015. The Q2 2015 reporting deadline is Friday, July 31. Visit the **WaterSense partner website** to learn more.

October 6-8, 2015: EEBA Excellence in Building Conference & Expo

This year's Energy and Environmental Building Alliance (EEBA) Excellence in Building Conference and Expo, which provides an opportunity for stakeholders to learn about the latest in responsible and sustainable building design technology, will take place in Denver, Colorado. There will be a session on WaterSense and the building water efficiency solutions it offers on the second day. Visit the **EEBA website to register and learn more**.

October 7-9, 2015: WSI Conference

It's never too early to start thinking about the **WaterSmart Innovations (WSI) Conference and Exposition**. Now in its eighth year, the conference will once again be held at the South Point Hotel and Conference Center in Las Vegas, Nevada.