



# WaterSense Labeled Homes Program

## Ensuring Homes Deliver on Efficiency

The U.S. Environmental Protection Agency's (EPA) WaterSense Labeled Homes Program, Version 2 requires that homes meet a simple mandatory checklist and a 30 percent water efficiency requirement. WaterSense works with Home Certification Organizations (HCOs), who administer WaterSense Approved Certification Methods (WACMs) to verify the efficiency requirement and certify homes.

### How Does EPA Ensure Labeled Homes Meet the Efficiency Requirement?

HCOs maintain and use their own approach to measure whether a home meets the water efficiency requirement. WaterSense refers to these approaches as Proposed Certification Methods (PCMs) before they are approved and WACMs once approved.

Even though each HCO has its own WACM, it must be reviewed and approved by EPA before it can be used to certify homes to the WaterSense specification. This ensures that homes bearing the WaterSense label feature the savings home buyers and residents expect and deserve. It also streamlines the labeling process by allowing HCOs to incorporate the WaterSense program into their existing processes and certification programs.

WACMs may come in many different shapes and sizes. A few examples of how they can work include:

- **Prescriptive requirements:** A predefined list of features or a checklist designed to meet the efficiency requirement in a range of scenarios. Homes must include all features to meet the efficiency requirement.
- **Point-based systems:** A selection of optional features with different point values. Homes must meet a predetermined total point value to meet the efficiency requirement.
- **Rating systems:** A tool that measures a home's predicted water consumption compared to a home with a set of reference features. Homes must meet a predetermined rating threshold, such as a score of 70<sup>1</sup> (representing a 30 percent reduction from the reference), to meet the efficiency requirement.

Builders and verifiers are free to select from any HCO and use its WACM to certify homes to earn the WaterSense label. Stakeholders with existing relationships or who are already pursuing other certifications will likely find familiarity in pursuing WaterSense certification through their existing HCO/verifier relationships.

<sup>1</sup>Rating systems are frequently expressed on a scale from 0 to 100, where 0 corresponds to "net-zero" use and 100 corresponds to the reference home or standard efficiency.



Photo courtesy of KB Home

#### GLOSSARY OF KEY TERMS

- **Home Certification Organization:** Independent organization responsible for administering home verification and certification to the *WaterSense Specification for Homes, Version 2.0*.
- **Proposed Certification Method or WaterSense Approved Certification Method:** Methodology administered by the HCO to demonstrate that a home meets WaterSense's water efficiency requirement. Once a PCM is approved by WaterSense, it becomes a WACM.

## What Does EPA Look at When Evaluating a PCM?

To determine whether to approve an HCO's certification method, EPA developed an evaluation protocol to serve as a kind of stress test. Find the full details of this process in the *WaterSense Technical Evaluation Process for Approving Home Certification Methods*. In short, the purpose of EPA's evaluation is to ensure that, at the proposed certification threshold, homes designed using a range of characteristics would still meet the efficiency requirement when compared to a similar home with water use typical of new construction.

To conduct the evaluation, EPA considers the major indoor and outdoor uses of water for both a typical home and a home with the water-efficient features required by or accounted for in the PCM. EPA's technical evaluation includes features such as:

- Efficiency of plumbing products.
- Efficiency of water-using appliances.
- Water waste from hot water delivery.
- Housing design and layout.
- Influence of landscape size, design, and plant choices on theoretical irrigation requirements.
- Irrigation design and technology.

HCOs can also submit information on other requirements (e.g., associated with alternative water sources) that it believes will help it achieve the water efficiency requirement for EPA consideration.

## What Quantitative Data Does EPA Consider During the Evaluation?

EPA uses a combination of national standards, common industry practices, and field data on average design and water use to characterize typical new construction. EPA's goal is to establish the amount of water a typical home built to national standards and common design and landscape practices would use. EPA compares a home with features typical of new construction to homes with the features required by the PCM to determine if it meets the efficiency requirement. The table below includes a selected list of the values EPA uses for major contributors of residential water use.

Item/Feature	Typical Efficiency/Value
Toilets	1.6 gallons per flush (gpf)
Showerheads	2.5 gallons per minute (gpm)
Lavatory faucets	2.2 gpm
Kitchen faucets	2.2 gpm
Clothes washers	6.5 gallons per cycle (gpc) per cubic foot (Integrated Water Factor or IWF)
Dishwashers	5.0 gpc
Bathtubs	20.2 gallons per use
Leaks	4.3 gallons per household per day
Hot water delivery	1.77 gallons wasted per useful hot water draw
Outdoor water use	Based on typical consumption patterns associated with specific lot sizes and climate of the individual reference homes

A PCM will be designated as a WACM if it consistently achieves WaterSense's efficiency requirement for homes during EPA's technical evaluation. Learn more about the WaterSense Labeled Homes Program, Version 2 at [www.epa.gov/watersense](http://www.epa.gov/watersense).