

WaterSense®

Labeled Homes

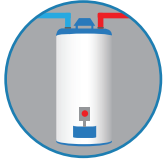
Quick Reference Guide



Why WaterSense?

WaterSense Labeled Homes: The Benefits

Green building has grown from a niche market to a savvy business strategy. WaterSense labeled homes capitalize on consumer demand by offering homeowners a whole-house solution to help them save water, energy, and money while maintaining a high level of performance.



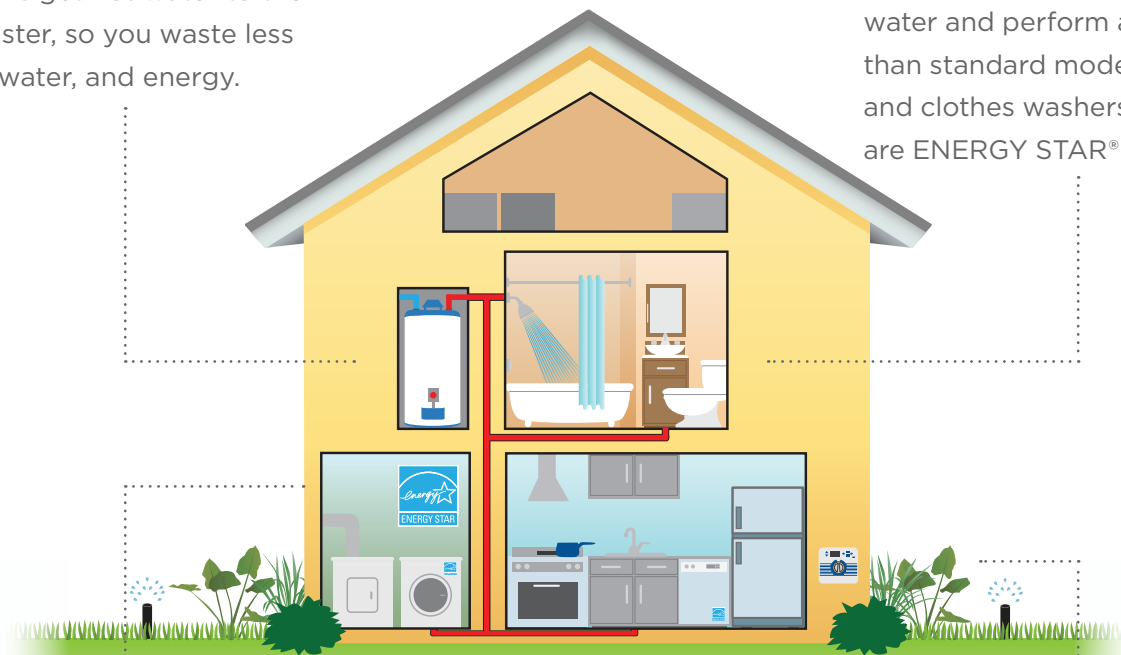
FASTER HOT WATER

Efficient plumbing distribution systems get hot water to the tap faster, so you waste less time, water, and energy.



SAVINGS THAT PERFORM

WaterSense labeled fixtures are independently certified to use less water and perform as well or better than standard models. Dishwashers and clothes washers, if included, are ENERGY STAR® certified.



PEACE OF MIND

Trained professionals conduct independent inspections to ensure that WaterSense labeled homes meet EPA's specification criteria, so you can be sure the homes perform well and save water.



OUTDOOR EASE

High-performing landscapes are designed to be low-maintenance and water-efficient without sacrificing curb appeal. If an irrigation system is installed, WaterSense labeled irrigation controllers help homeowners water smarter.



What's in a WaterSense Labeled Home?

All WaterSense labeled homes are inspected and certified to meet EPA's indoor and outdoor water efficiency criteria.

Third-party inspectors verify:

Indoor Criteria

LEAKS

- No visible leaks

SERVICE PRESSURE

- Service pressure test ≤ 60 psi

HOT WATER DELIVERY

- 10°F temperature change observed within ≤ 0.6 gallons

PLUMBING FIXTURES

- WaterSense labeled toilets, bathroom sink faucets, and showerheads

DISHWASHERS AND CLOTHES WASHERS*

- ENERGY STAR certified dishwashers and clothes washers

Outdoor Criteria

LANDSCAPE DESIGN

- Complies with WaterSense's Water Budget Tool for water-smart design

IRRIGATION SYSTEM*

- WaterSense labeled irrigation controller
- Designed or installed by an irrigation professional certified by a WaterSense labeled program
- Audited by a certified irrigation professional
- Multi-family: Independently metered

POOLS AND SPAS*

- Single-family: Cover installed
- Multi-family: Independently metered, gutter or grate system used, sorptive media (pre-coat) or cartridge filtration system installed

*If included with the home at time of purchase

Dig Deeper!

Check out the full **WaterSense Inspection Checklist** used in the field:
www.epa.gov/watersense/docs/home_inspection-checklist508.pdf

Learn more with WaterSense's detailed specification materials:

- **Version 1.2 WaterSense New Home Specification**
www.epa.gov/watersense/docs/home_finalspec508.pdf
- **Inspection and Verification Guidance for WaterSense Labeled New Homes**
www.epa.gov/watersense/docs/home_inspection-guidelines508.pdf
- **Builder Resource Manual**
www.epa.gov/watersense/docs/newhome_builder_resource_manual508.pdf

HOW TO: Efficient Hot Water Distribution Requirement

What: Reduce the **waiting time for hot water** by designing and constructing cost-effective plumbing systems that save water and energy while increasing customer satisfaction.

Why: Heating water is typically the **second largest use of energy** in a home (after space heating and cooling). Careful planning and thoughtful design/selection can result in efficient distribution systems without significantly increasing costs or installation time. A high-performing plumbing system ultimately saves the homeowner money and allows builders to deliver a better product to their customers.

How: WaterSense labeled homes minimize water loss by storing no more than **0.5 gallons of water** between the hot water source and any hot water fixture. The hot water source is typically a water heater, but it can also be a demand-initiated recirculation line.

Dig Deeper!

Learn more with WaterSense's detailed technical guidance for meeting the hot water distribution requirement:

- **Guide for Efficient Hot Water Delivery System**
www.epa.gov/watersense/docs/hw_distribution_guide.pdf
- **Hot Water Distribution Volume Calculator**
www.epa.gov/watersense/excel/hw_volume_tool_v1.xlsm

Product Solutions

Product solutions offer builders flexibility by allowing for longer pipe runs and less centralized fixture placement, while still meeting the WaterSense specification in just about any size floor plan.

If

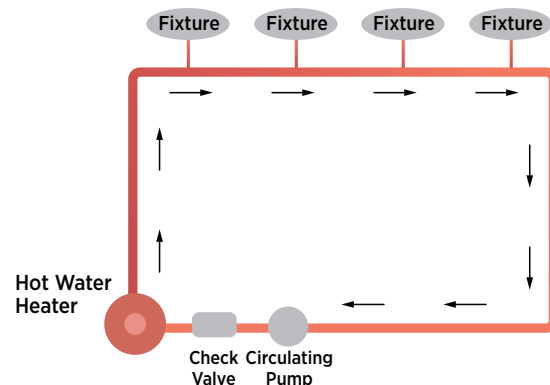
Smaller or larger home with many fixtures **not centrally located**

Then

DEMAND-INITIATED RECIRCULATION

Piping runs directly from loop to individual fixtures that are within 10 feet

- Can be used with a less centralized layout where longer pipe runs would otherwise be necessary
- Might be more expensive to install than other system types
- Saves water, energy, and money while adding a desirable feature to the home
- May require homeowner training
- If designed properly, can be the most water-efficient hot water delivery system



System Design Options

It's all in the design. Structural solutions minimize pipe run lengths and pipe diameters to help builders meet the WaterSense specification.

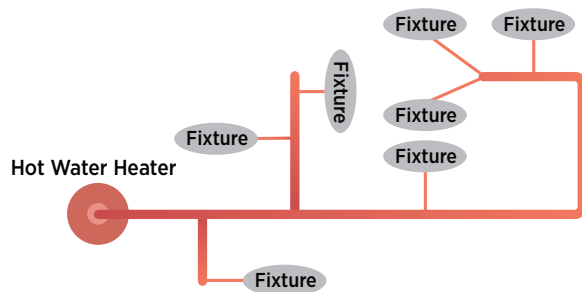
If

Smaller home with **fewer** fixtures in close proximity

Then

TRUNK AND BRANCH

Main trunk supplies water to farthest fixture with individual fixtures connected to main trunk

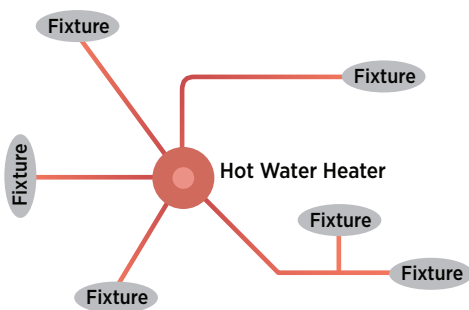


- Most common with plumbing professionals
- Greatest potential for inefficiency

Or

CORE

Pipes run directly from water heater to individual fixtures



- Less material, less expensive, and less time to install
- Requires planning to centralize fixtures
- Greater potential for efficiency

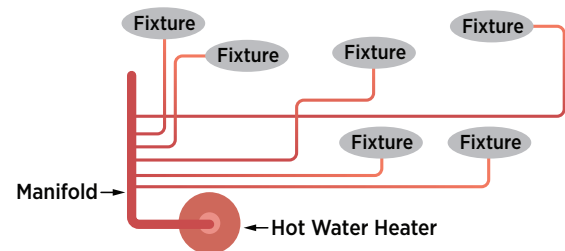
If

Larger home with **many** fixtures

Then

WHOLE-HOUSE MANIFOLD

Piping runs from manifold to individual fixtures



- Can be installed more quickly than traditional rigid systems
- Requires fewer fittings and installation is more flexible
- Equalizes pressure so fixtures can be used simultaneously without pressure or temperature changes
- Reduced pipe diameter delivers hot water faster and with less water and energy waste

Save Water & Energy with WaterSense®



HOW TO: Outdoor Requirements

What: Provide homeowners with **attractive** and **water-efficient** landscapes that are **easy to maintain**.

Why: On average, single-family homes in the United States use **30 percent** of their water outdoors. In some hotter and drier areas of the country, that number is as high as 70 percent! Regionally-appropriate landscapes can also help homeowners cope with drought and comply in times of local watering restrictions.

How: The WaterSense specification addresses outdoor water efficiency through a combination of **appropriate landscape design** and **efficient irrigation systems**.

Dig Deeper!

Learn more with WaterSense's detailed technical guidance for meeting the outdoor requirements:

- **Water-Smart Landscapes Guide**
www.epa.gov/watersense/docs/water-efficient_landscaping_508.pdf
- **WaterSense Water Budget Tool**
www.epa.gov/watersense/water_budget/

Landscape Design Criteria

To help builders and contractors design regionally-appropriate landscapes, EPA developed the WaterSense Water Budget Tool. All homes that earn the WaterSense label have landscapes that meet the requirements of this Web-based tool. Here's how to use it:

STEP 1: Enter information on region and landscape, including **zip code**, **plans for in-ground irrigation systems**, and the **area** of the landscape. The Water Budget Tool will provide a **Landscape Water Allowance** based on local climate data and set a goal for landscape efficiency.

STEP 2: Input the general **types of plants** that will be used in the landscape (e.g., turfgrass, shrubs) and the **water requirements** (e.g., low, medium, high) of each. In this step, you also input what type of **irrigation system**, if any, will be installed.

WATERSENSE WATER BUDGET TOOL

STEP 1 Location and Area

Congratulations on choosing to design a locally appropriate water-efficient landscape! The WaterSense water budget tool will help you determine if your landscape meets EPA's criteria for efficient outdoor water use in your area.

In order to use the water budget tool, you will need to know some basic information about your landscape:

- The location and zip code
- The total area of applicable landscape
- Types of plants and the total coverage
- Methods of irrigation (if any)

Your landscape will receive a pass/fail based on local climate, plant selection, irrigation methods, and size of the landscape. Follow the instructions on screen to find out if your landscape meets the WaterSense criteria.

For what purpose is the tool being used?
What are you landscaping?
WaterSense Labeled Home(s) ▼

How many sites?
 Development of Multiple Landscapes Single Site

Is there an irrigation system?
 Yes No

Enter Zip Code: 20004

Enter Landscaped Area for a Single Home or Site¹: 2950 Sq. Ft.

Enter Multi-Home/Development Landscaped Area Range¹: _____ to _____ Sq. Ft.

NEXT STEP >

STEP 1 Location and Area

STEP 2 Plants and Irrigation

Fill out the chart below with all the appropriate information to calculate your landscape's water needs.

Zone	Area (sq. ft.)	Plant Type / Landscape Feature	Water Demand	Irrigation Type	Impact on Water Use	Required Water (gal/month)
x 1	1200	Turfgrass	Medium	Rotor	8 water droplets	4041
x 2	425	Shrubs	Low	Drip (Press Comp)	1 water droplet	161
x 3	200					
x 4						
x 5						
x 6						
Total: 1625						

+ add zone

1,325 Remaining Area (sq. ft.)

8,328 Water Allowance (gal/month)

4,202 Total Water Requirement for the Site (gal/month)

4,126 Below Allowance (gal/month)

NEXT STEP >



STEP 3: Learn whether or not your landscape design meets the WaterSense specification—a simple “pass” or “fail.” For a home to earn the WaterSense label, the landscape water budget must stay under that Landscape Water Allowance from Step 1 in order to receive a pass. Your inspector will verify your Water Budget Tool calculations as part of the inspection process.

Irrigation System Requirements

If your landscape design requires an irrigation system, there are additional criteria you need to meet:

WATERSENSE LABELED IRRIGATION CONTROLLER

- WaterSense labeled irrigation controllers allow watering schedules to better match plants’ needs by tailoring to local weather and actual onsite landscape conditions.
- Use our Product Search Tool (www.epa.gov/watersense/product_search.html) to identify a WaterSense labeled model or simply look for the WaterSense label on product packaging.



CERTIFIED IRRIGATION PROFESSIONALS

- Have your irrigation system **designed** or **installed** and then **audited** by irrigation professionals certified by a WaterSense labeled program, which teaches skills to improve landscape health and water efficiency.
- Use our **Directory of Certified Professionals** (www.epa.gov/watersense/findapro/) to locate a certified professional in your area.

Other Considerations

After your landscape design has passed the Water Budget Tool, you might have a few more requirements to consider, depending upon the property:

If...	Then...
Your landscape has exposed soil	Cover it with 2 to 3 inches of mulch.
The property has slopes greater than 4 feet of horizontal run per 1 foot vertical rise (4:1)	They need to be vegetated.
You plan to install a pool, spa, or ornamental water feature	Consult the WaterSense specification (www.epa.gov/watersense/docs/home_finalspec508.pdf) for specific requirements.

Ready to Get Started?

Adding the WaterSense label—an independent certification for both savings and performance—helps assure home buyers in a competitive market where third-party certifications matter and consumers are looking for a choice in efficient homes. You can open the door to savings with WaterSense labeled homes, and here's how:

- 1. PARTNER WITH WATERSENSE:** Partnership is free and required for any builder who wants to earn the WaterSense label. Simply fill out our brief online partnership agreement at www.epa.gov/watersense/partners/partnership_agreement.html.
- 2. COLLABORATE WITH YOUR TEAM:** Work with your trades, vendors, and raters or inspectors to make sure your home will meet the WaterSense specification. WaterSense provides more resources to help, such as our in-depth Builder Resource Manual (www.epa.gov/watersense/docs/newhome_builder_resource_manual508.pdf).
- 3. FIND YOUR PROVIDER:** Locate a WaterSense licensed certification provider to coordinate your WaterSense inspection. Discuss the WaterSense label with your existing energy raters and providers—they might already be able to provide this additional service. You can also contact one of the approved WaterSense licensed certification providers using the Meet Our Partners search tool (www.epa.gov/watersense/meet_our_partners.html).
- 4. FINISH BUILDING AND GET INSPECTED:** Your licensed certification provider will send a trained inspector to certify your home to earn the WaterSense label using the inspection checklist (www.epa.gov/watersense/docs/home_inspection-checklist508.pdf).
- 5. MARKET YOUR WATERSENSE LABELED HOMES:** Use WaterSense partner tools, such as infographics, brochures, and the WaterSense promotional label, to promote your homes and partnership! You can find them on the password-protected partner website (www2.ergweb.com/wspartner/sell/new-homes.html).

