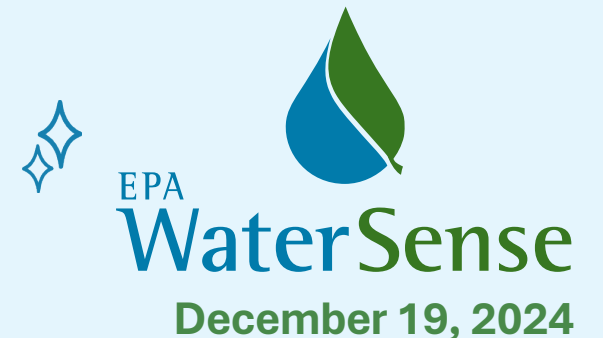


# Draft Version 2.0 of the WaterSense Specification for Private Lavatory Faucets

Jonah Schein, EPA WaterSense

Grace McCarthy, ERG

Robbie Pickering, ERG



# Housekeeping



- All attendees are muted to minimize background noise
- Please type questions using the Zoom Q&A button:
- Q&A at the end of each section
- At the end of the presentation as time allows
- PowerPoint and recording will be posted on the [epa.gov/watersense](https://epa.gov/watersense) website
- Submit written comments to [watersense-products@erg.com](mailto:watersense-products@erg.com)
- This meeting is meant to be an open discussion
- All questions, comments, and concerns are welcome!

# Meeting Purpose



At this meeting, we will:

- Explain WaterSense's specification revision process
- Summarize EPA's draft revisions to the specification for private lavatory faucets
- Summarize the potential impact the revised specification will have on currently labeled faucets
- Answer questions about the draft specification so that interested parties can provide more precise comments

Generally, we do not:

- Provide resolution to comments or concerns
- Finalize specifics of the revised specification
- Provide a guaranteed timeline for the revision completion

# Agenda



- Introduction to WaterSense
- Lavatory Faucet Specification Background
- Draft Version 2.0 of the Specification for Private Lavatory Faucets
  - Scope and Definitions
  - General Requirements
  - Water Efficiency
  - Performance Criteria
  - Optional Criteria for Cold-Start Faucets
  - Product Marking and Documentation
  - Appendices to the Specification
  - Transition Period
- Next Steps
- Questions and Discussion



# Poll Question

**Question:** Please tell us who you are. Do you represent a:

- Manufacturer
- Retailer/Distributor
- Water and/or Energy Utility
- Certifying Body
- Other



# What is WaterSense?

WaterSense is a voluntary partnership program launched by EPA in 2006 that provides a simple way to identify water-efficient:

- Products
- Programs
- Practices
- Homes



Products are independently certified for water efficiency **and** performance



# WaterSense Labeled Products



## Lavatory Faucets

Labeled since 2007  
21,100 labeled models



## Tank-Type Toilets

Labeled since 2007  
5,400 labeled models



## Flushing Urinals

Labeled since 2009  
800 labeled models



## Flushometer-Valve Toilets

Labeled since 2015  
1,600 labeled models



## Showerheads

Labeled since 2010  
15,500 labeled models



## Weather-Based Irrigation Controllers

Labeled since 2011  
400 labeled models



## Soil Moisture-Based Irrigation Controllers

Labeled since 2021  
4 labeled models



## Spray Sprinkler Bodies

Labeled since 2017  
600 labeled models



## Point-of-Use RO Systems

Labeled since 2024  
**\*NEW\***

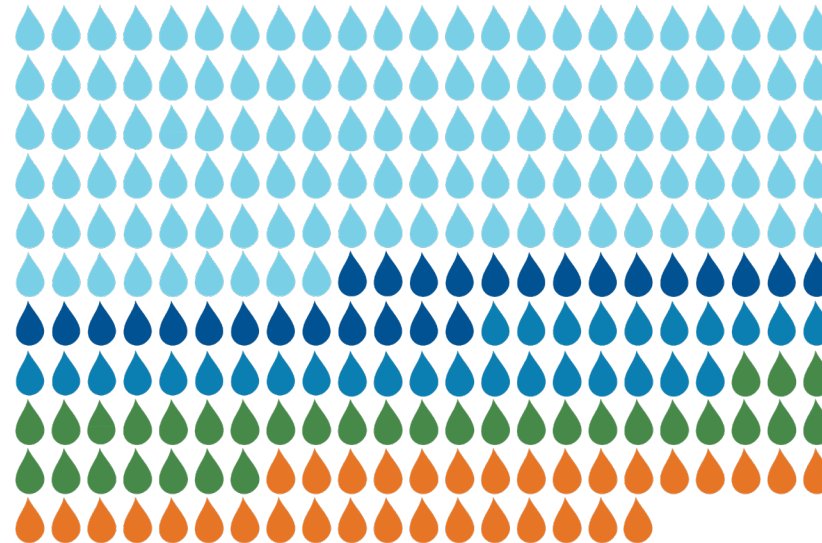
# Thanks a Trillion!



- WaterSense is 18 years old this year!
- Thanks to our partners, WaterSense has helped Americans save 8.7 trillion gallons of water between 2006 and 2023

**WaterSense** partners helped save

**8.7 trillion** gallons of water



That's the water used in nearly **11 months** by all U.S. households!

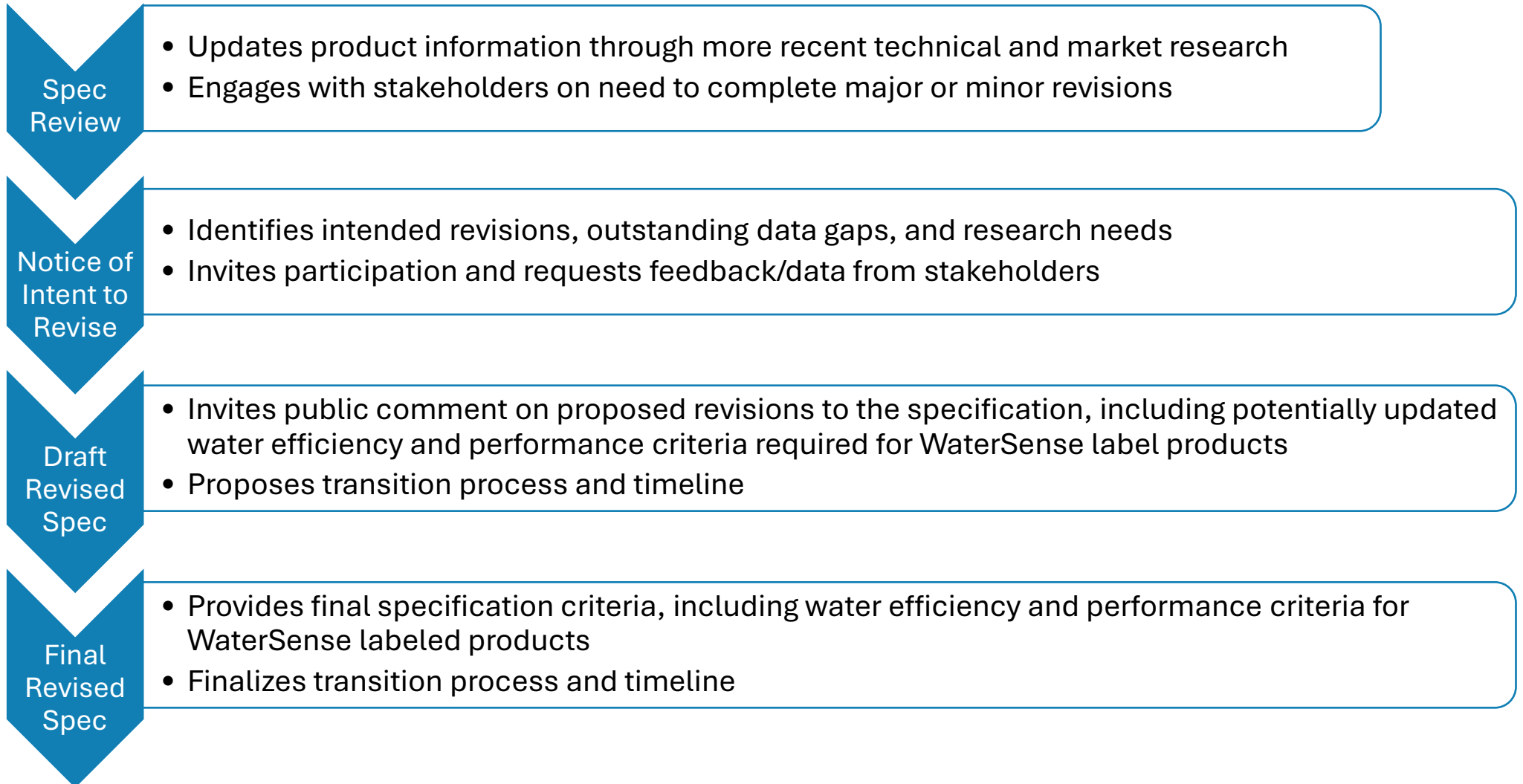
**1.2 trillion** gallons saved in 2023



...and saving consumers **\$207 billion** in **water** and **energy bills**



# Specification Revision Process



We are here

# **High-Efficiency Lavatory Faucet Specification Background**

# Specification Background



## *High-Efficiency Lavatory Faucet Specification*

- Released October 1, 2007
- Includes water efficiency, performance, and marking criteria for lavatory faucets and faucet accessories to earn the WaterSense label
- Currently, approximately 280 different brands/manufacturers offer more than 21,100 models of labeled lavatory faucets and faucet accessories



# Notice of Intent



## *WaterSense Notice of Intent (NOI) to Revise the High-Efficiency Lavatory Faucet Specification*

- Released March 2024
- Considered expanding scope to include kitchen faucets and public lavatory faucets, reducing private lavatory faucet water efficiency criteria
- Requested comments on potential revisions to the scope, water efficiency criteria, and performance criteria
- EPA considered feedback from stakeholders on NOI
- EPA has decided to move forward with the private lavatory faucet specification revision, without expanding the scope to include kitchen faucets or public lavatory faucets

# Draft Specification



## *Draft Version 2.0 of the WaterSense Specification for Private Lavatory Faucets*

- Released December 4, 2024
- Supporting documents include:
  - Cover Letter
  - Redline comparison between the original specification and the draft revision
  - Summary of Revisions
  - Draft Product Notification Template
- Available for review at [www.epa.gov/watersense/bathroom-faucets#revision](https://www.epa.gov/watersense/bathroom-faucets#revision)

**Draft Version 2.0 of  
WaterSense Specification for  
Private Lavatory Faucets**

# Scope and Definitions



## Current specification scope includes:

- Lavatory faucets in private use, such as in residences, and private restrooms in hotels and hospitals
- Lavatory faucet accessories specifically designed to control the flow of water
- Any other lavatory faucet technologies that meet the performance specifications
- EPA has previously indicated that bar sink faucets are eligible for the WaterSense label

## Current specification scope excludes:

- Metering faucets
- Lavatory faucets in public use
- Kitchen faucets

# Scope and Definitions



## Revisions to the specification scope:

- Exclusions:
  - Bar faucets
  - Laundry and service sink faucets
  - Lawn or sediment faucets
  - Tub faucets
  - Pot fillers
  - Drinking water dispensers
- Inclusions:
  - Metering faucets in private use that are equipped with a WaterSense labeled aerator





# Scope and Definitions



## Revisions to the specification definitions:

- Definitions within ASME A112.18.1/CSA B125.1 and NSF/ANSI/CAN Standard 61 are incorporated by reference.
- **Private Use:** Applies to faucets for the private and restricted use of one or more individuals. Note: Examples of private use faucets include those in homes/dwelling units; hotel and motel guest rooms; congregate living facilities; senior care facilities; private rooms in hospitals or healthcare facilities; and other facilities that are not intended for public use.
- **Public Use:** Applies to faucets in non-residential bathrooms and toilet facilities that are exposed to walk-in traffic. Note: Public use bathrooms and toilet facilities are those available for the unrestricted use of more than one individual (including employees), such as those in: assembly occupancies; business occupancies; public buildings; transportation facilities; schools and other educational facilities; office buildings; restaurants, bars, other food service facilities; mercantile facilities; manufacturing facilities; military facilities; and other facilities that are not intended for private use.

# Scope and Definitions



## Additions to the specification definitions:

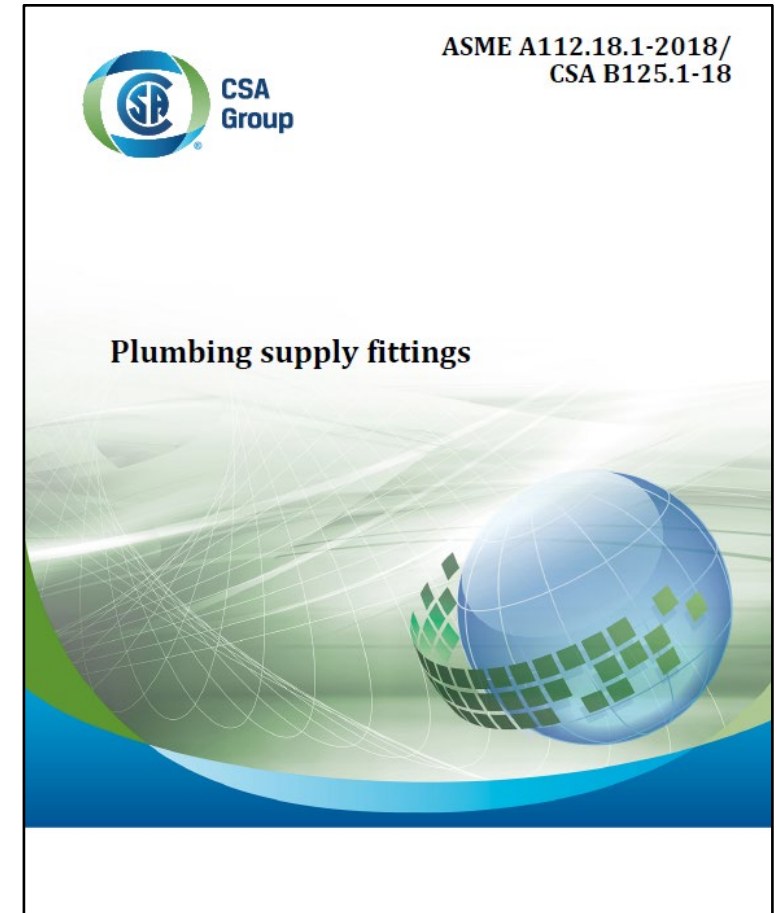
- **Cold-start faucet:** A faucet with a single-control mixing valve that turns on only in the cold position and supplies hot water only when the user turns the handle toward the hot position.
- **Sink faucet:** A faucet intended for discharge into a sink.
  - **Bar faucet:** A faucet intended for discharge into a bar sink.
  - **Kitchen faucet:** A faucet intended for discharge into a kitchen sink.
  - **Laundry faucet:** A faucet intended for discharge into a laundry sink.
  - **Service sink faucet:** A faucet intended for discharge into a service sink.

# General Requirements



## Current specification:

- Lavatory faucets and lavatory faucet accessories must conform to applicable requirements in ASME A112.18.1/CSA B125.1 and NSF/ANSI Standard 61, Section 9
- General requirements included within the “Water Efficiency and Performance Criteria” section



# General Requirements



## Revisions to the general requirements:

- Lavatory faucets and lavatory faucet accessories shall conform to applicable requirements in ASME A112.18.1/CSA B125.1 Plumbing Supply Fittings and NSF/ANSI/CAN 61 Drinking Water System Components – Health Effects, Section 9.
  - Metering faucets equipped with a WaterSense labeled accessory shall conform to NSF/ANSI/CAN 61, Section 9.
- Requirements remain the same, but updating the reference to the standard
  - Specifying requirements for metering faucets (excluded from the standard itself)
  - Included within new “General Requirements” section

**Questions?**



# Water Efficiency Criteria



## Current specification water efficiency requirements:

- Maximum flow rate shall not exceed 1.5 gpm (5.7 L/min) at a pressure of 60 psi at the inlet, when water is flowing
- A lavatory faucet is considered to meet this flow rate requirement if equipped with a lavatory faucet accessory that meets this requirement
- Flow rate shall be tested in accordance with the procedures in ASME A112.18.1/CSA B125.1
- Flow rate shall meet the testing verification protocol as described in 10 CFR 429.28

# Water Efficiency Criteria



## Revisions to the water efficiency criteria:

- **EPA is reducing the maximum flow rate to 1.2 gpm (4.5 L/min) at 60 psi**
- Almost 65 percent of labeled faucets and faucet accessories have a maximum flow rate of 1.2 gpm or less
- Several states require maximum flow rate at or 1.5 gpm
- At least six states and Canada require maximum flow rate of 1.2 gpm
- Resulting shift in marketplace

# Water Efficiency Criteria



## Revisions to the water efficiency criteria:

- EPA is reversing LF-1215-2: Metering Faucets
  - A metering faucet is considered to meet this flow rate requirement if equipped with a lavatory faucet accessory that meets the requirement
- EPA is incorporating LF-1214-1: Maximum Flow Rate Verification Protocol
  - The maximum flow rate shall meet the testing verification protocol as described in 10 CFR 429.28



# Performance Criteria



## Current specification performance requirements:

- Minimum flow rate shall not be less than 0.8 gpm at a pressure of 20 psi at the inlet when water is flowing
  - Tested according to ASME A112.18.1/CSA B125.1
  - Shall meet testing verification protocol in 10 CFR 430 Subpart F, Appendix B (superseded by 10 CFR 429.28)
  - Applies to lavatory faucets and faucets equipped with accessories that meet flow rate criteria

# Performance Criteria



## Revisions to the performance criteria:

- EPA is maintaining the current minimum flow rate requirement
- EPA is incorporating LF-1213-2: Applicability of Minimum Flow Rate Requirement
  - If the lavatory faucet operates in multiple modes, at least one mode shall meet all water efficiency and performance criteria, including the minimum flow rate
  - No modes shall exceed maximum flow rate of 1.2 gpm
- EPA is incorporating LF-1214-2: Minimum Flow Rate Verification Protocol into a new Appendix B
  - The minimum flow rate shall meet the testing verification protocol as described in Appendix B of the specification
  - Specifies modifications to 10 CFR 429.28 to evaluate minimum flow rate

**Questions?**



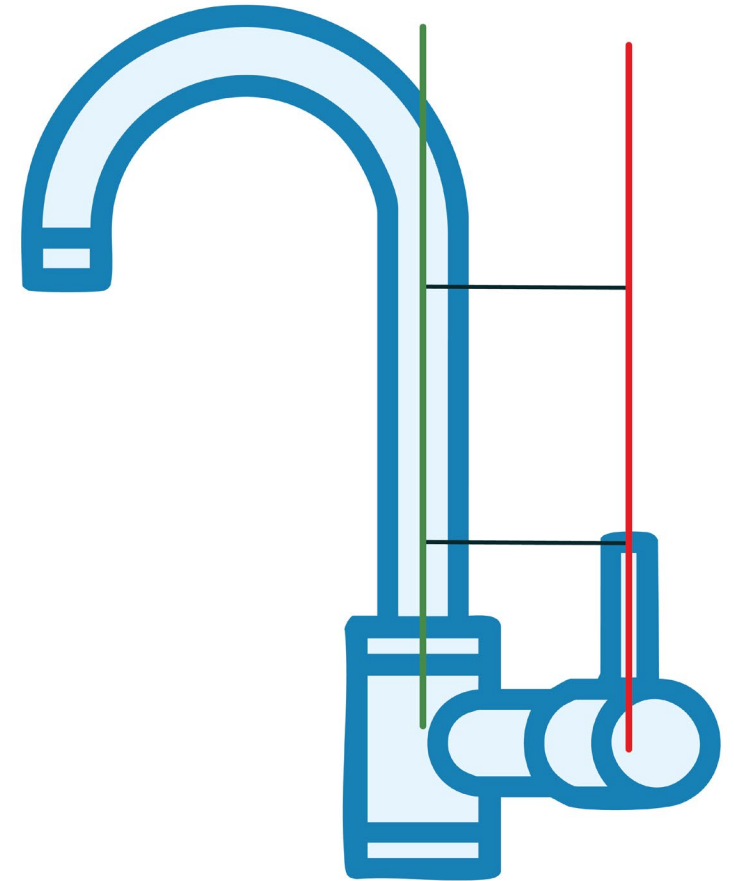
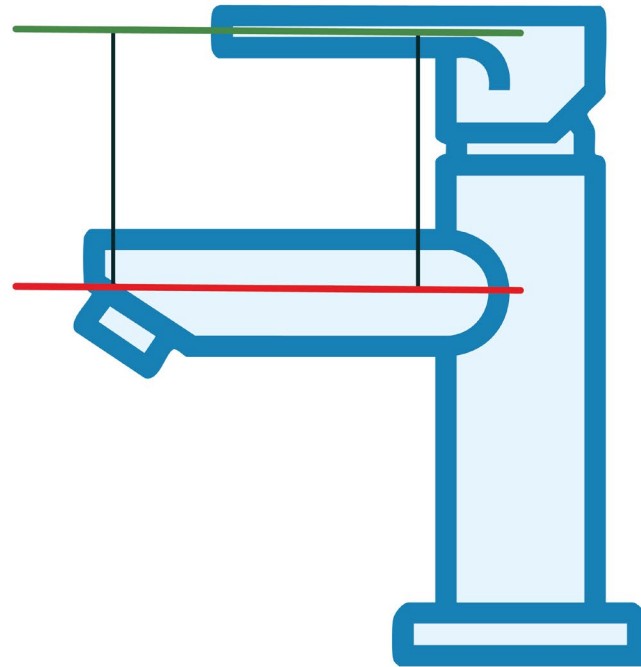
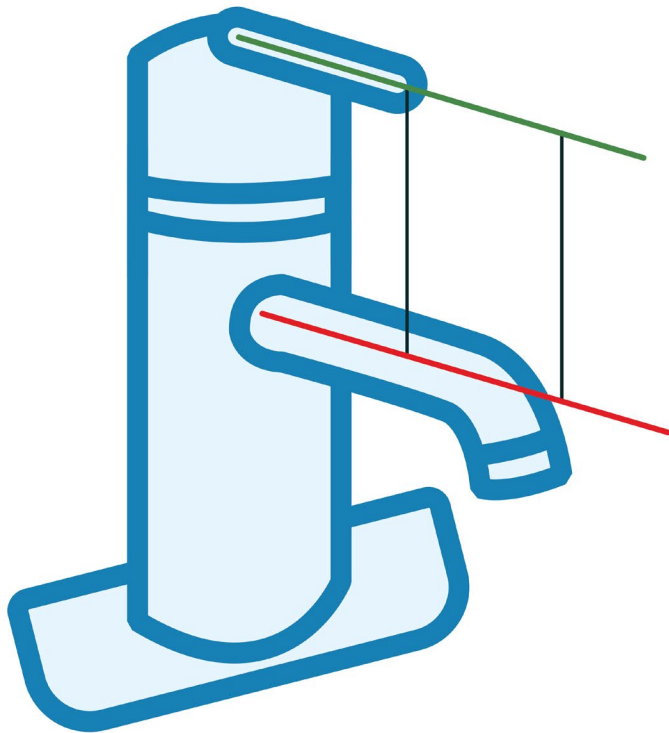
# Optional Criteria for Cold-Start Faucets



## Rationale for addition of optional criteria:

- Cold-start faucets lower energy consumption because they only deliver cold water when turned on in the middle position
  - Only deliver hot water when the handle or lever is moved away from the middle position
- EPA is creating new section to identify optional criteria for cold-start faucets
- EPA will highlight cold-start faucets with the WaterSense Product Search Tool, if they meet the outlined criteria
  - Criteria specified within this new section
  - Test protocol specified within new Appendix C

# Optional Criteria for Cold-Start Faucets



# Optional Criteria for Cold-Start Faucets



## Outlined criteria for cold-start faucets:

- The lavatory faucet shall have a single-control mixing valve.
- The lavatory faucet shall be tested in accordance with the procedures outlined in Appendix C and meet the following criteria:
  - When the faucet is turned on with the lever at or within a 10-degree arc of the middle position, it shall only deliver cold water. There shall be no water flow or leakage at the hot water inlet.
  - When the lever is turned more than a 10-degree arc away from the middle position towards the hot water position, the faucet shall deliver hot water.
- The lavatory faucet shall have its temperature control settings permanently identified alphabetically, numerically, or graphically (i.e., through color) and clearly indicate that the middle position only delivers cold water.

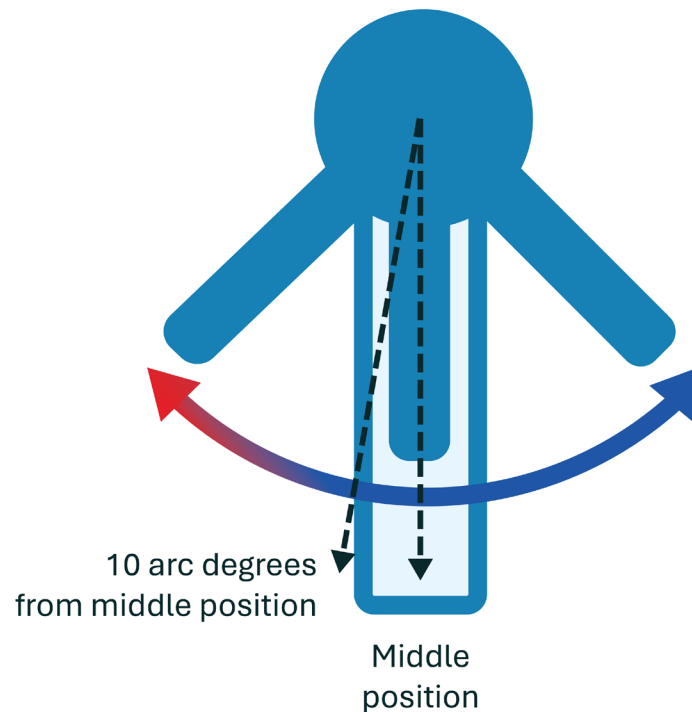
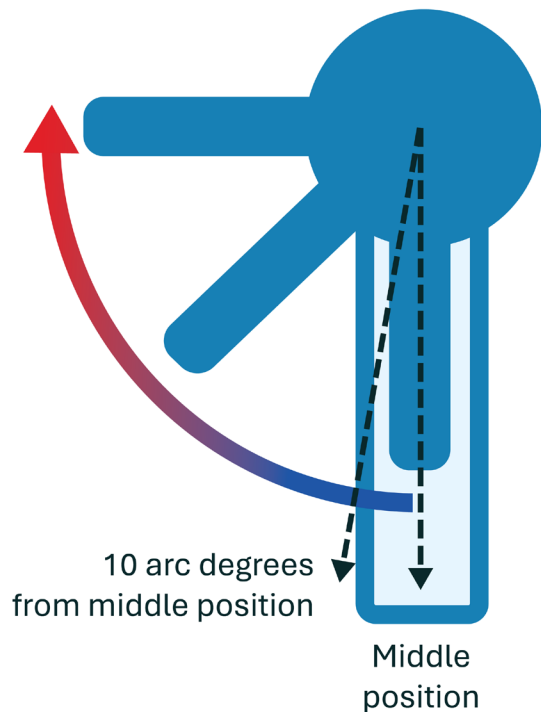
# Optional Criteria for Cold-Start Faucets



## Quarter-Turn (90-Degree) Handle

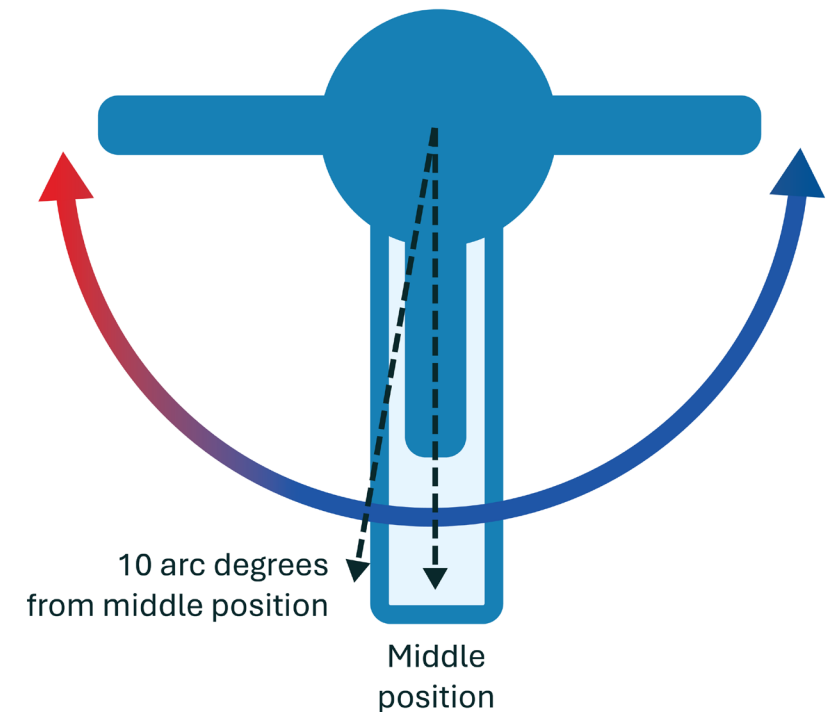
Single Direction

Dual Direction



## Half-Turn (180-Degree) Handle

Dual Direction



**Questions?**





# Product Marking and Documentation



## Current specification product marking requirements:

- The product shall not be packaged, marked, or provided with instructions directing the user to an alternative water-use setting that would override the maximum flow rate of 1.5 gpm at 60 psi
- Any instruction related to the maintenance of the product, including changing or cleaning faucet accessories, shall direct the user on how to return the product to its intended maximum flow rate
- The product and/or packaging shall be marked in accordance with 16 CFR 305.11(f) with the maximum flow rate in gpm and L/min as determined through testing and compliance with the specification. Marking shall be in two-digit resolutions (e.g., 1.5 gpm [5.7 L/min])
- All labeled products must adhere to ASME A112.18.1/CSA B125.1

# Product Marking and Documentation



## Revisions to the product marking requirements:

- EPA is incorporating the following clarifications into its product marking requirements for faucets:
  - LF-0113-1: Flow Rate Marking
  - LF-1219-1: Number of Digits for Flow Rate Marking
  - LF-1221-1: Faucet Marking Requirements
- EPA is maintaining the current specification marking and documentation requirements for private lavatory

# Appendices to the Specification



## Appendix A: Informative Annex for WaterSense Labeling

- Addition of Section 3.0: WaterSense Label Use
  - Clarifies marking guidelines for product packaging and online and printed specification sheets

## Appendix B: Minimum Flow Rate Verification Protocol

- New appendix
- Previously discussed in tandem with Performance Criteria

## Appendix C: Cold-Start Faucet Test Procedure

- New appendix
- Supplementary to new Optional Criteria for Cold-Start Faucets

## Appendix D: Transition Timeline

- Proposed and subject to negotiation with industry

# Summary of Revisions



Section	Revision?	Summary
<b>Scope</b>	Major	Clarify the scope and its exclusions, explicitly exclude bar faucets and include metering faucets w/ WaterSense labeled faucet accessory
<b>General Requirements</b>	Minor	Clarify references to standards; apply requirements to metering faucets
<b>Water Efficiency and Performance Criteria, Appendix B</b>	Major	Reduce maximum flow rate requirement; incorporate clarifications throughout section and new appendix on minimum flow rate verification protocol
<b>Optional Criteria for Cold-Start Faucets, Appendix C</b>	New/Minor	New section to establish optional criteria for cold-start faucets; new appendix to establish test procedures
<b>Product Marking and Documentation</b>	Minor	Incorporate clarifications
<b>Definitions</b>	Minor	Clarify existing definitions and define faucet types included/excluded in scope
<b>Appendix D</b>	New	New section on transition timeline

**Questions?**



# Appendix D: Transition Period



## Impact of Revision on Labeled Models

Maximum Flow Rate	Faucets	Faucet Accessories	Total	Percentage of Total
$\leq 1.5$ gpm and $> 1.2$ gpm	6,421	994	7,415	35.1%
$\leq 1.2$ gpm	12,821	913	13,734	64.9%
<b>Total</b>	19,242	1,907	21,149	

- Approximately 35 percent of currently labeled faucets and faucet accessories would no longer be eligible

# Appendix D: Transition Period



- The revisions will exclude bar faucets from earning the WaterSense label when specification takes effect
  - Previously labeled bar faucets that otherwise meet the requirements in Version 2.0 may remain on certification listings until EPA releases new specification with criteria for kitchen and bar faucets
  - Retesting and recertification not required
- Revisions will not impact current licensing status of certifying bodies
- Edits to licensing agreements or licensing agreement amendments currently in effect not required

# Appendix D: Transition Period



Date	Estimated Timeline	Activities
Publication date	2025	<ul style="list-style-type: none"><li>• EPA publishes final WaterSense Specification for Private Lavatory Faucets, Version 2.0.</li><li>• Manufacturers, at their discretion, can begin to remove ineligible models from product certification listings.</li></ul>
Effective date	Publication date + 12 months	<ul style="list-style-type: none"><li>• WaterSense Specification for Private Lavatory Faucets, Version 2.0 takes effect.</li><li>• Faucet models that are unable to meet the specification criteria can no longer bear the WaterSense label.</li><li>• New bar faucet models are unable to earn the WaterSense label.</li><li>• EPA designates all private lavatory faucet models no longer meeting specification criteria as “delisted.” Existing bar faucet models that otherwise meet the Version 2.0 specification criteria may remain on the certification listings until publication of a specification for kitchen and bar sink faucets.</li></ul>



# Appendix D: Transition Period



Date	Estimated Timeline	Activities
Certifying body transition period	Effective date + 90 days	<ul style="list-style-type: none"><li>• Licensed certifying bodies are required to update certification listings and submit Version 4.0 of the PNT with up-to-date product listings.</li></ul>
Grace period	Effective date until the discontinue date	<ul style="list-style-type: none"><li>• EPA pauses brand monitoring activities related to private lavatory faucets to offer manufacturers and private labelers the opportunity to update materials associated with previously labeled models.</li><li>• Manufacturers and private labelers work on updates to online and newly printed materials associated with previously labeled models to remove the WaterSense label and any language associated with WaterSense labeling.</li></ul>

# Appendix D: Transition Period

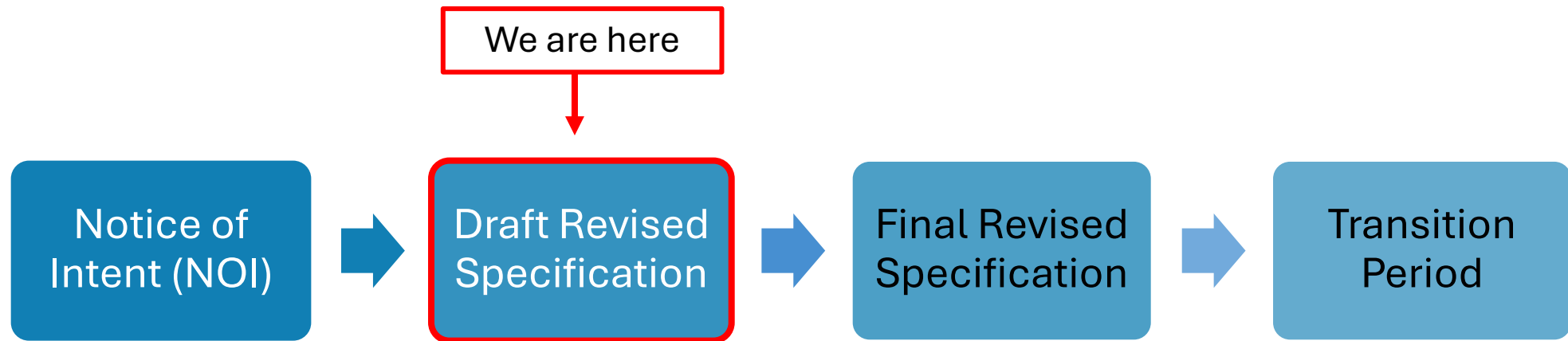


Date	Estimated Timeline	Activities
Discontinue date	Effective date + six months	<ul style="list-style-type: none"><li>• All private lavatory faucet models no longer meeting specification criteria that were designated as “delisted” are removed from the WaterSense Product Search Tool.</li></ul>
Ongoing	Following discontinue date	<ul style="list-style-type: none"><li>• EPA reimplements brand monitoring activities related to private lavatory faucets and works with manufacturers, private labelers, and licensed certifying bodies, as applicable, to resolve any identified brand monitoring issues.</li><li>• EPA releases a specification for kitchen faucets at a later date. EPA will work with manufacturers and licensed certifying bodies to transition bar faucets to this new product category. When this specification is published, new bar faucet models may apply to earn the WaterSense label.</li></ul>

# Next Steps and Timeline



## Specification Revision Process:



- Draft Version 2.0 of the *WaterSense Specification of Private Lavatory Faucets*, along with a summary of revisions and a version comparing the draft to Version 1.0, can be reviewed at [www.epa.gov/watersense/bathroom-faucets](http://www.epa.gov/watersense/bathroom-faucets)
- Submit written comments or additional information and data to [watersense-products@erg.com](mailto:watersense-products@erg.com)
- Comment Deadline: **January 15, 2025**
- EPA is targeting publishing the final revised specification in 2025

# Contact Us



General E-mail: [watersense@epa.gov](mailto:watersense@epa.gov)

Website: [www.epa.gov/watersense](http://www.epa.gov/watersense)

Helpline: (866) WTR-SENS (987-7367)

# **Supplementary Slides Related to Modified Efficiency Criteria**

# Currently Labeled Faucets and Faucet Accessories



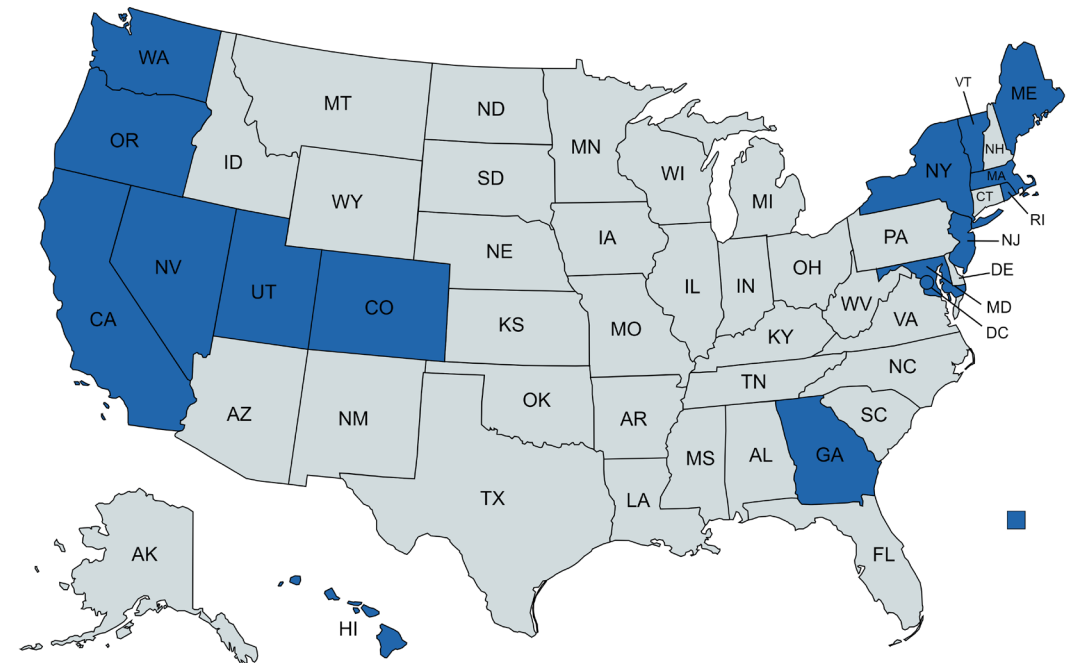
Maximum Flow Rate	Faucets	Faucet Accessories	Total	Percentage of Total
≤1.5 gpm and >1.2 gpm	6,421	994	7,415	35.1%
≤1.2 gpm and >1.1 gpm	11,726	453	12,179	57.6%
≤1.1 gpm	1,095	460	1,555	7.4%
<b>Total</b>	<b>19,242</b>	<b>1,907</b>	<b>21,149</b>	

# State-Specific Adoption



- At least 16 states and multiple municipalities have adopted lavatory faucet efficiency standards that require products to use no more than 1.5 gpm, consistent with the WaterSense specification. States marked with \* have established criteria at 1.2 gpm.

- California\*
- Colorado
- Georgia
- Hawaii\*
- Maine\*
- Maryland
- Massachusetts
- Nevada
- New Jersey
- New York\*
- Oregon\*
- Rhode Island
- Utah
- Vermont
- Washington\*
- Washington, DC



# Other Standards That Reference WaterSense



- LEED
- International Green Construction Code (IgCC)
- ASHRAE 189.1 *Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings*
- IAPMO's Water Efficiency and Sanitation Standard (WE●Stand)
- Green Globes

