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

I. Introduction

WaterSense is a voluntary partnership program sponsored by the U.S. Environmental Protection Agency (EPA). The program's foundation is the WaterSense label, which identifies products that have been independently certified to be at least 20 percent more water-efficient and perform as well as or better than standard models. EPA released its *High-Efficiency Lavatory Faucet Specification* on October 1, 2007, to promote sustainable, efficient water use and product performance within the lavatory faucet market. Since its release, advancements in the faucet marketplace, inquiries from stakeholders, and the release of more stringent state regulations have provided compelling rationale for EPA to revise its WaterSense faucets specification to better reflect the changing landscape of the faucet industry.

In accordance with the *America's Water Infrastructure Act* of 2018, EPA published its *Notice of Specification Review* for tank-type toilets, lavatory faucets and faucet accessories, showerheads, flushing urinals, and weather-based irrigation controllers in December 2018. The specification review considered changes to the water efficiency and performance criteria for each product category. Following completion of the review, EPA announced that no changes would be made to the specifications at that time.

Five years later, EPA intends to revisit the *High-Efficiency Lavatory Faucet Specification*, as the agency recognizes opportunities to make improvements to the specification criteria and potentially expand the scope to include additional faucet types. The current specification applies to lavatory faucets in private use, including in residences and private restrooms in commercial and institutional buildings such as hotels and dormitories. It establishes a maximum flow rate of 1.5 gallons per minute (gpm) (5.7 liters per minute [L/min]) at 60 psi, which represents a 32 percent reduction in the maximum allowable flow rate when compared to the 2.2 gpm (8.3 L/min) federal maximum flow rate standard established by the U.S. Department of Energy (DOE). In 2007, when the specification was released, 1.5-gpm faucets were available but not prevalent within the faucet market. Today, more than 20,000 WaterSense labeled models are on the market and several states have adopted state regulations that require private lavatory faucets to have a maximum flow rate at or below the WaterSense threshold level of 1.5 gpm, with four states establishing a maximum flow rate of 1.2 gpm. In acknowledgement of this shift in the marketplace, EPA is considering modifying the maximum flow rate criteria below its current level of 1.5 gpm.

Kitchen faucets, public lavatory faucets, and metering faucets are excluded from the scope of the current specification. EPA has received several inquiries as to whether these faucet types are eligible for the WaterSense label. In response, EPA has issued clarifications to address these questions and any nuances that have emerged in the lavatory faucet market since the release of the specification. However, there is still some confusion as to which products are included in the specification. Further, EPA sees opportunity to encourage water-efficient and high-performing products in these other faucet categories. Therefore, EPA is considering revising the scope of the specification to include additional faucet categories. In doing so, it would establish clear definitions and criteria for each different faucet category.

With this notice of intent (NOI), EPA has preliminarily identified the scope and water efficiency and performance criteria it is considering for a revised specification for faucets. To establish and better define the scope and these criteria, EPA is seeking feedback on the existing *High Efficiency Lavatory Faucet Specification*, as well as the potential specification revisions and discussion topics presented in the following sections. All interested parties are encouraged to submit written information and comments regarding any of the concepts or issues presented in this NOI to watersense-products@erg.com. Comments and information on the issues presented in this NOI are welcome and will be taken into consideration as EPA develops a revised WaterSense specification for faucets.

II. Scope and Definitions

The *High-Efficiency Lavatory Faucet Specification* applies to lavatory faucets and faucet accessories[1] in private use, such as in residences and other private restrooms, such as in hotels. EPA has also previously indicated that bar sink faucets are eligible for the WaterSense label; however, this is not explicitly stated in the current specification and has never been formally clarified. Kitchen faucets, public lavatory faucets, and metering faucets are not covered by the current specification. EPA seeks to expand the scope of the revised specification to include kitchen faucets, public lavatory faucets, and metering faucets. EPA would also like to explicitly include bar sink faucets in the scope of the revised specification.

The American Society of Mechanical Engineers (ASME) A112.18.1/Canadian Standards Association (CSA) B125.1 *Plumbing supply fittings* product standard, which is the primary referenced American National Standard for faucets, does not explicitly define most faucet types that EPA currently labels or intends to address by the specification. However, it does include broad definitions for a faucet and fitting, including several relevant subcategories of each.[2]

- **Faucet:** A terminal fitting.[3]
    - **Lawn faucet:** A faucet designed to be installed horizontally on the outside wall of a building with male or female iron pipe size (IPS) threads or copper solder connections on the inlet and hose threads on the outlet.
    - **Sediment faucet:** A horizontal faucet with male or female IPS threads on the inlet side and male hose threads at the outlet spout.
    - **Self-closing faucet**: A faucet that closes itself after the actuation or control mechanism is deactivated.
- **Fitting:** A device that controls and guides the flow of water. *Note: Fittings include faucets and valves.*
    - **Public lavatory fitting**: A fitting intended to be installed in non-residential bathrooms that are exposed to walk-in traffic.

[1] Accessory, as defined in ASME A112.18.1/CSA B125.1, means "a component that can, at the discretion of the user, be readily added, removed, or replaced and that, when removed, will not prevent the fitting from fulfilling its primary function." For the purpose of the WaterSense specification, an accessory can include, but is not limited to lavatory faucet flow restrictors, flow regulators, aerators, and laminar devices.
[2] ASME A112.18.1-2018/CSA B125.1-18 *Plumbing supply fittings.*
[3] A new definition for a metering faucet and a modified definition of a self-closing faucet are being considered for inclusion in the next publication of the ASME A112.18.1/CSA B125.1 standard, which is anticipated in 2024. EPA will consider these definitions once they have been formally published.

- **Terminal fitting**: A fitting with an open or atmospheric discharge.

Although other specific categories of faucets are not defined, ASME A112.18.1/CSA B125.1 states in its scope that the standard applies to: kitchen sink and lavatory supply fittings; lawn and sediment faucets; and metering and self-closing supply fittings. It also includes minimum and/or maximum flow rate requirements for various faucet and fitting types, including: lavatory (other than public lavatory or metering); lawn or sediment; laundry tub; metering; public lavatory (other than metering); service sink; and sink.

As it relates to the scope of the specification, the ASME A112.19.2/CSA B45.1 *Ceramic Plumbing Fixtures* product standard defines a lavatory as "a washbowl or basin."[4]

ASME A112.19.2/CSA B45.1 does not define other fixture types that receive water from various faucets; however, they are considered in scope of the product standard. These include bar sinks, clinic sinks, kitchen sinks, laboratory sinks, laundry sinks, service sinks, and utility sinks.

EPA reviewed existing regulations and consensus-based standards to identify industry definitions relevant to the faucet specification. These definitions are shown in Table 1.

Table 1. Overview of Industry Definitions Related to Faucets

Term	Source	Definition
Faucet	International Plumbing Code[5]	A valve end of a water pipe through which water is drawn from or held within the pipe.
Kitchen faucet	California Title 20 *Appliance Efficiency Regulations*[6]	A faucet designed for discharge into a kitchen sink
Kitchen replacement aerator	California Title 20 *Appliance Efficiency Regulations*	An aerator sold as a replacement, separate from the kitchen faucet to which it is intended to be attached.
Kitchen and bar sink faucets	International Association of Plumbing and Mechanical Officials (IAPMO) *Water Efficiency and Sanitation Standard for the Built Environment* (WE●Stand)[7]	A faucet that discharges into a kitchen or bar sink in domestic or commercial installations. Supply fittings that discharge into other type sinks, including clinic sinks, floor sinks, service sinks and laundry trays are not included.

[4] ASME A112.19.2-2018/CSA B45.1-18 *Ceramic plumbing fixtures.*
[5] International Code Council (ICC). 2021 International Plumbing Code®. https://codes.iccsafe.org/content/IPC2021P3.
[6] California Code of Regulation (CCR), Title 20, Section 1602.
[7] International Association of Plumbing and Mechanical Officials (IAPMO). 2020 Water Efficiency and Sanitation Standard for the Built Environment (WE●Stand). https://epubs.iapmo.org/2020/WEStand/.

Table 1. Overview of Industry Definitions Related to Faucets (Continued)

Term	Source	Definition
Kitchen and bar sink faucets	Uniform Plumbing Code[8]	A faucet that discharges into a kitchen or bar sinks in domestic or commercial installations. Supply fittings that discharge into other type sinks, including clinical sinks, floor sinks, service sinks and laundry trays are not included.
Lavatory faucet	IAPMO WE●Stand	A faucet that discharges into a lavatory in a domestic or commercial installation.
	California Title 20 *Appliance Efficiency Regulations*	A plumbing fitting designed for discharge into a lavatory.
	Uniform Plumbing Code	A faucet that discharges into a lavatory basin in a domestic or commercial installation.
Lavatory replacement aerator	California Title 20 *Appliance Efficiency Regulations*	An aerator sold as a replacement, separate from the lavatory faucet to which it is intended to be attached.
Lawn faucet	ASME A112.18.1/CSA B125.1	A faucet designed to be installed horizontally on the outside wall of a building with male or female IPS threads or copper solder connections on the inlet and hose threads on the outlet.
Metering faucet	California Title 20 *Appliance Efficiency Regulations*	A faucet that, when turned on, will gradually shut itself off over a period of several seconds.
	IAPMO WE●Stand	A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjusted.
	Uniform Plumbing Code	A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable.

[8] IAPMO. 2021 Uniform Plumbing Code. https://epubs.iapmo.org/2021/UPC/

Table 1. Overview of Industry Definitions Related to Faucets (Continued)

Term	Source	Definition
Public lavatory fitting	ASME A112.18.1/CSA B125.1	A fitting intended to be installed in non-residential bathrooms that are exposed to walk-in traffic.
	California Title 20 *Appliance Efficiency Regulations*	A fitting intended to be installed in non-residential bathrooms that are exposed to walk-in traffic.
Sediment faucet	ASME A112.18.1/CSA B125.1	A horizontal faucet with male or female IPS threads on the inlet side and male hose threads at the outlet spout.
Self-closing faucet	ASME A112.18.1/CSA B125.1	A faucet that closes itself after the actuation or control mechanism is deactivated.
	IAPMO WE●Stand	A faucet that closes itself after the actuation or control mechanism is deactivated. The actuation or control mechanism can be mechanical or electronic.
	International Plumbing Code	A faucet containing a valve that automatically closes upon deactivation of the opening means.
	Uniform Plumbing Code	A faucet that closes itself after the actuation or control mechanism is deactivated. The actuation or control mechanism can be mechanical or electronic.
Terminal fitting	ASME A112.18.1/CSA B125.1	A fitting with an open or atmospheric discharge

EPA intends to use these definitions as a framework to define the scope of the revised specification. **EPA is seeking input on other accepted industry definitions.**

Due to inquiries from WaterSense manufacturer and promotional partners, changes in the market, and stakeholder feedback, EPA is considering expanding the scope of the faucet specification to explicitly include bar sink faucets, as well as kitchen faucets and public lavatory faucets. In addition, EPA is considering allowing private and public lavatory faucets that use a metering or other self-closing function to earn the label. EPA intends to exclude laundry tub faucets, lawn and sediment faucets, deck-mounted tub faucets, pot fillers, drinking water dispensers, and service sink faucets from the scope of the revised specification.

EPA is considering grouping the faucets that fall within the scope of the specification into three categories: (1) private lavatory and bar sink faucets and faucet accessories; (2) kitchen faucets and faucet accessories; and (3) public lavatory faucets and faucet accessories. Each category would be required to meet distinct efficiency and performance requirements to achieve the WaterSense label. Metering faucets and other self-closing faucets that fall within the “private lavatory and bar sink faucets” or “public lavatory faucets” categories would be eligible to receive

the WaterSense label if they meet the category-specific requirements in the specification. Additionally, as a mechanism to encourage these faucet types, EPA is considering differentiating cold-start faucets that fall within any of the three categories above within the WaterSense Product Search Tool.

Private Lavatory and Bar Sink Faucets/Faucet Accessories

Private lavatory and bar sink faucets are included in the scope of the current specification. Because the use patterns and user expectations for private lavatory faucets and bar sink faucets are similar, EPA intends to continue to apply the same efficiency and performance requirements for achieving the WaterSense label.

For the purposes of a specification revision, EPA intends to define private lavatory faucet and bar sink faucet as follows:

- **Private lavatory faucet:** A faucet intended to be installed in residential bathrooms that discharges into a lavatory.
- **Bar sink faucet:** A faucet designed for discharge into a bar sink.

EPA is seeking input on its proposed definitions for private lavatory faucet and bar sink faucet.

EPA anticipates that most metering faucets and self-closing faucets are intended for public restrooms that serve a transient public and will therefore be defined as a public lavatory faucet. However, it is possible for these devices to be installed in shared, residential lavatories within institutional facilities, such as those within dormitories, barracks, or campsites, where their expected uses and performance requirements differ from those of a public lavatory faucet and instead align more with those of a private lavatory faucet. EPA intends to incorporate these faucet types into the scope of its revised specification, provided that they adhere to the criteria for private lavatory faucets, as described in the sections below.

Kitchen Faucets/Faucet Accessories

The second category of faucets EPA is considering within the scope of a revised specification is kitchen faucets and faucet accessories. EPA chose to exclude kitchen faucets from the scope of the current faucet specification due to their different use patterns and performance considerations compared to lavatory faucets. For example, kitchen faucets are often used for container or pot filling, activities which would not yield any water savings from a reduced flow rate. However, while some uses of a kitchen faucet are volumetric in nature, many tasks (e.g., hand washing, rinsing, dishwashing) are not and would result in water savings.

EPA periodically receives inquiries from manufacturers asking whether the specification applies to kitchen faucets or requesting that EPA establish criteria for kitchen faucets. Further, there are a significant number of kitchen faucets on the market that operate at a lower flow rate than the federal maximum, likely to meet state codes and standards and support the green building marketplace. Therefore, EPA is considering revising the specification to include kitchen faucets and faucet accessories.

For the purposes of a specification revision, if EPA moves forward with including kitchen faucets within the scope, EPA intends to adopt the California Title 20 *Appliance Efficiency Regulations* definition for kitchen faucet.

- **Kitchen faucet:** A faucet designed for discharge into a kitchen sink.

EPA is seeking input on its proposed adoption of the kitchen faucet definition from the California Title 20 *Appliance Efficiency Regulations*. EPA is also seeking input on its intent to include kitchen faucets and kitchen faucet accessories in the scope of its revised faucet specification.

There are many kitchen faucet models on the market that allow the user to switch among different modes to change the spray pattern of the faucet for improved rinsing. EPA intends to include these "multi-modal" faucets in the scope of the specification. Potential requirements for multi-modal faucets are discussed in the subsequent sections of this NOI. **EPA is seeking feedback on its intent to include multi-modal kitchen faucets in the scope of the WaterSense specification.**

Public Lavatory Faucets/Faucet Accessories

The third category of faucets EPA is considering within the scope of a revised specification is public lavatory faucets and faucet accessories. EPA chose to exclude public lavatory faucets from the scope of the current faucet specification because of their different use patterns compared to private lavatory faucets and because standards already exist that regulate their maximum flow rate. While federal standards differentiating requirements for private and other public lavatory faucets do not exist, Section 5.4.1 and Table 1 of ASME A112.18.1/CSA B125.1 establish the maximum flow rates for public lavatory (other than metering) faucets at 0.5 gpm (1.9 L/min). This criterium for public lavatory faucets is adopted in model building and plumbing codes throughout the United States, such as the International Plumbing Code and Uniform Plumbing Code.

However, none of the existing standards prescribes performance requirements to ensure user satisfaction. EPA is familiar with complaints about the performance of some public lavatory faucets that either do not provide enough water for effective, efficient handwashing or emit water at high force and spray patterns that cause the water to splash onto the user and the surrounding area. A WaterSense specification for these products could introduce performance requirements to improve the user experience while maintaining water efficiency.

EPA frequently receives requests or inquiries from a variety of stakeholders regarding the existence of WaterSense labeled public lavatory faucets. While these products are not eligible under the current specification, these inquiries suggest a potential interest for the WaterSense label to be available for public lavatory faucets. Including public lavatory faucets in the revised specification could clarify confusion and improve overall industry understanding of WaterSense labeled faucets and brand recognition for the WaterSense program.

If EPA were to incorporate public lavatory faucets within the scope of its revised specification, it intends to adopt the following definition modified from the ASME A112.18.1/CSA B125.1 definition for public lavatory fittings:

- **Public lavatory faucet:** A faucet intended to be installed in non-residential bathrooms that are exposed to walk-in traffic.

This definition can be inclusive of a variety of faucet types common in public restrooms, such as metering faucets, self-closing faucets, and manually-operated faucets. **EPA is seeking input on its proposed adoption of the public lavatory faucet definition from ASME A112.18.1/CSA B125.1. EPA is also seeking input on its intent to include public lavatory faucets and public lavatory faucet accessories in the scope of its revised faucet specification.**

Metering and Self-Closing Faucets

EPA is considering revisions to the specification to allow metering and self-closing faucets. These faucet definitions are used to describe the control mechanism used to operate a faucet rather than the intended function. Therefore, it is possible for metering and self-closing faucets to be installed in a variety of settings, including both private lavatories and public lavatories.

EPA chose to exclude metering faucets from the scope of the current faucet specification because of their different use patterns compared to manually-operated faucets and because their efficiency is separately regulated by the U.S. Code of Federal Regulations 10 CFR Part 430 (specifically §430.32(o) Faucets), which sets the maximum water use for metering faucets at 0.25 gallons per cycle (gpc) (1.0 L/cycle). Consistent with the federal requirement, ASME A112.18.1/CSA B125.1 also establishes the maximum water use for metering faucets at 0.25 gpc. These criteria are adopted in national building and plumbing codes throughout the United States. Similar to public lavatory faucets, the existing regulations for metering faucets do not prescribe performance requirements to ensure user satisfaction.

If EPA were to incorporate metering and self-closing faucets within the scope of its revised specification, it intends to adopt the definitions currently being considered for adoption within ASME A112.18.1/CSA B125.1:

- **Metering faucet:** A self-closing faucet that discharges water for a predetermined period of time (i.e., cycle) or discharges a predetermined quantity of water before shutting off.
- **Self-closing faucet:** A terminal fitting (faucet) that, once the valve is opened, automatically shuts off the flow of water by either mechanical or electronic means.

EPA does not intend to establish criteria specific to metering or self-closing faucets. Rather, EPA intends to translate the currently defined water consumption of a metering faucets (in gallons per cycle) into a flow rate in gallons per minute, similar to how non-metering faucets are tested. Therefore, while EPA is considering the adoption of definitions for metering and self-closing faucets, these faucet types do not represent a separate scope category. **EPA is seeking input on its proposed adoption of the ASME A112.18.1/CSA B125.1 definitions for metering faucet and self-closing faucet.**

Cold-Start Faucets

EPA is considering whether to explicitly define or encourage cold-start faucets within the revised specification. Cold-start faucets are designed to save energy by reducing hot water demand. They are single-handled faucets designed to discharge only cold water as a default, and if the

user desires hot water, they need to turn the handle away from its neutral position. These faucets prevent users from unintentionally using hot water or creating a hot water draw in circumstances where it is not needed, thereby reducing energy use. Cold-start faucets do not contribute any direct water savings. However, EPA is considering whether to encourage their use as a best practice to lower energy consumption and is considering incorporating them in the scope of the specification. Similar to metering and self-closing faucets, cold-start faucets describe an operating mechanism rather than an intended application. Therefore, this designation would only be used to further differentiate between the primary faucet types that EPA intends for the scope of the specification to include (i.e., private lavatory and bar sink, kitchen faucets, and public lavatory). If EPA were to incorporate cold-start faucets within the scope of its revised specification, it intends to adopt the following definition:

- **Cold-start faucet:** A faucet with a single-control mixing valve that turns on only in the cold position.

EPA does not intend to require all faucets to demonstrate cold-start functionality. Rather, it could establish criteria to differentiate cold-start faucets and utilize the WaterSense Product Search Tool to highlight this feature. **EPA is seeking input on whether to adopt a definition and testing criteria for cold-start faucets and its intent to promote them through the WaterSense Product Search Tool.**

Scope Exclusions

EPA intends to exclude faucet types for which the function is solely intended for volumetric activities or otherwise not suitable for water savings from the scope of the specification. This includes but is not limited to:

- Laundry tub/tray and service sink faucets, which are used for filling a laundry tub, mop buckets, or other basins;
- Lawn or sediment faucets (i.e., hose bibbs);
- Deck-mounted tub faucets, including roman tub faucets, which are used for filling a bathtub;
- Pot fillers, which are typically installed over a stovetop or range or in a commercial kitchen for filling pots with water; and
- Water dispensers, which typically are connected to an under-sink or whole-house water treatment, cooling, or heating system and are used for glass or pot filling.

EPA is seeking input on its intended scope exclusions and whether there are other faucet types that should be explicitly excluded from the scope of the revised faucet specification.

III. General Requirements

The current specification requires lavatory faucets and lavatory faucet accessories to conform to applicable requirements in ASME A112.18.1/CSA B125.1 and NSF/ANSI Standard 61, Section 9.

EPA intends to keep the General Requirements section of the specification the same. If EPA modifies the scope of the specification to include additional faucet types, as discussed in

Section II of this NOI, the applicable requirements of these standards would similarly apply. **EPA is seeking feedback on its intent to require all labeled faucets to conform to applicable requirements in ASME A112.18.1/CSA B125.1 and NSF/ANSI Standard 61, Section 9.**

IV. Water Efficiency

The current water efficiency criteria requirements in the *High-Efficiency Lavatory Faucet Specification* are as follows:

- The maximum flow rate shall not exceed 1.5 gpm (5.7 L/min) at a flowing pressure of 60 pounds per square inch (psi) at the inlet, when water is flowing.

The maximum flow rate of a lavatory faucet or lavatory faucet accessory shall be tested in accordance with the procedures in ASME A112.18.1/CSA B125.1. A lavatory faucet is considered to meet the flow rate requirements if equipped with a lavatory faucet accessory that meets the flow rate criteria.

The specification also states that flow rate shall meet the testing verification protocol as described in 10 CFR 430 Subpart F, Appendix B.

Periodically, EPA issues technical clarifications to a product specification intended to clarify unclear, vague, or outdated requirements based on frequent questions or input received from manufacturers or licensed certifying bodies. As outlined in the *WaterSense Product Certification System*, manufacturers and licensed certifying bodies must adhere to these clarifications, as applicable, when certifying products to meet WaterSense specifications.

EPA has issued one technical clarification related to the maximum flow rate criteria for lavatory faucets. EPA intends to modify the *High-Efficiency Lavatory Faucet Specification* to incorporate the following clarification into its water efficiency criteria for faucets:

- LF-1214-1: Maximum Flow Rate Verification Protocol. The flow rate testing verification protocol referenced in the specification (i.e., 10 CFR 430 Subpart F, Appendix B) has been superseded by 10 CFR 429.28, which also altered the verification protocol. This clarification updated the flow rate testing verification protocol to 10 CFR 429.28.

The following discussion outlines EPA's preliminary considerations on revisions to the water efficiency criteria for lavatory faucets intended for private use that fall under the scope of the current specification, as well as new water efficiency criteria EPA is considering if it were to expand the scope of the specification to include additional faucet types.

Private Lavatory and Bar Sink Faucets/Faucet Accessories

The U.S. Code of Federal Regulations 10 CFR Part 430.32(o) sets the maximum flow rate for lavatory faucets sold in the United States at 2.2 gpm (8.3 L/min) at 60 psi. The current WaterSense faucet specification requires a maximum flow rate of 1.5 gpm at an inlet pressure of 60 psi when the faucet is tested in accordance with the procedures in ASME A112.18.1/CSA B125.1. This represents a 32 percent reduction in flow rate from the federal standard, consistent with WaterSense's goal of improving efficiency by at least 20 percent.

In 2016, the California Energy Commission (CEC) adopted a state requirement that all private lavatory faucets sold must not exceed a maximum flow rate of 1.2 gpm (4.5 L/min).[9] Since then, manufacturers have developed and sold a variety of 1.2 gpm faucets that comply with the California requirements. EPA is not aware of widespread performance issues or complaints related to these faucets compared to 1.5 gpm faucets.

Three additional states—Hawaii, Oregon, and Washington—have since adopted state regulations that also require all private lavatory faucets to have a maximum flow rate of 1.2 gpm or lower, consistent with California's regulations. Eleven other states, Washington, D.C., and numerous other municipalities have adopted regulations that set the maximum flow rate at 1.5 gpm, the current WaterSense limit, for either all sales or for new construction.[10]

Table 2 provides a summary of the number and percentage of WaterSense labeled lavatory faucet and faucet accessory models within different flow rate ranges. The majority (63.1 percent) of labeled faucets and faucet accessories have a maximum flow rate less than or equal to 1.2 gpm.

Table 2. Number and Percentage of WaterSense Labeled Faucet and Faucet Accessory Models by Flow Rate (gpm)[11]

Maximum Flow Rate	≤ 1.5 gpm and > 1.2 gpm	≤ 1.2 gpm and >1.0 gpm	≤ 1.0 gpm
Number of models	7,584	11,574	1,390
Percent of total	36.9	56.3	6.8

Figure 1 on the next page summarizes WaterSense labeled lavatory faucet certification trends from 2007 through 2022. The data show that since 2016, the majority of newly-certified WaterSense lavatory faucet models have flow rates of 1.2 gpm or lower.

[9] 20 C.C.R. § 1605.3. State Standards for Non-Federally Regulated Appliances. https://govt.westlaw.com/calregs/Document/I02CB6DB0EB2F11ED8BFF9413895FDA56?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default).
[10] Appliance Standards Awareness Project. *Faucets*. Accessed October 19, 2023. https://appliance-standards.org/product/faucets.
[11] Data collected from the WaterSense Product Listing as of January 10, 2024. www.epa.gov/watersense/product-search.

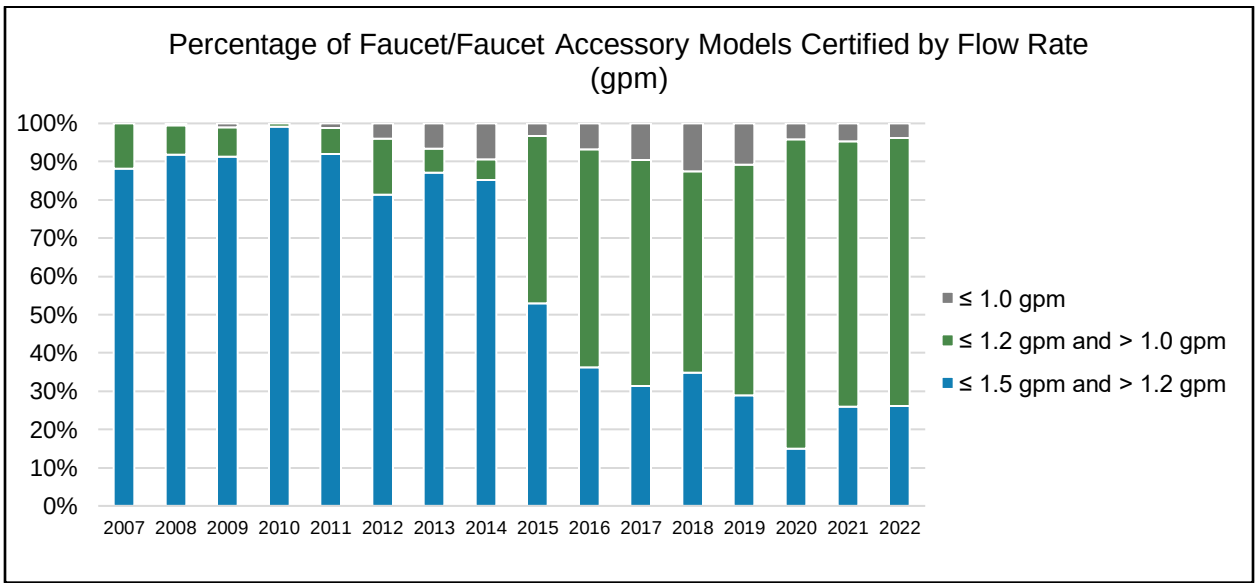

Figure 1. Percentage of New WaterSense Labeled Models based on Flow Rate

Due to the prevalence and reliability of 1.2 gpm faucets currently on the market, as well as the increase in state regulations requiring a 1.5 gpm maximum flow rate, EPA is considering setting its maximum flow rate requirement for private lavatory faucets and bar sink faucets at 1.2 gpm or 1.0 gpm (3.8 L/min) to ensure the WaterSense label continues to represent the most water-efficient options in the marketplace. **EPA is seeking feedback on its intent to lower the maximum flow rate requirement for private lavatory faucets and bar sink faucets and on which maximum flow rate it should require.**

EPA intends to measure lavatory faucet and bar sink faucet flow rate consistent with the procedures in ASME A112.18.1/CSA B125.1, as is the case in the current specification. **EPA is seeking input on whether there are any issues or concerns with the current flow rate testing procedures.**

For metering faucets intended for residential lavatories in institutional facilities (e.g., dormitories, barracks, campsites), EPA intends to allow metering faucets to earn the WaterSense label provided that their flow rate, when converted from gpc to gpm, remains below the maximum flow rate prescribed in the specification. For example, a metering faucet operating at 0.2 gpc (0.8 L/cycle) that has an operating cycle of 10 seconds would have a resulting flow rate of 1.2 gpm. **EPA is seeking feedback on its intent to allow metering faucets to meet the established water efficiency criteria for private lavatory faucets by translating the maximum flow rate from gpc to gpm.**

Kitchen Faucets/Faucet Accessories

The federal maximum flow rate for kitchen faucets is 2.2 gpm, consistent with the maximum flow rate criteria for other faucets. However, in the interest of promoting water and energy conservation, several states have adopted regulations requiring kitchen faucets to operate at a maximum flow rate of 1.8 gpm (6.8 L/min), with the option for a temporary override feature that

allows up to 2.2 gpm for pot filling. EPA is aware of 12 states that have adopted such regulations, including California, New York, Washington, and Massachusetts.[12]

Likely due to the influence of state regulations, as well as other green building codes and standards, kitchen faucets operating at 1.8 gpm or less are readily available on the market. Therefore, EPA is considering establishing a maximum flow rate of 1.8 gpm or 1.5 gpm for kitchen faucets. **EPA is seeking feedback on its intent to establish a maximum flow rate requirement of 1.8 gpm or 1.5 gpm for kitchen faucets.**

Because some portion of kitchen faucet usage is for container and pot filling, EPA intends to allow a temporary override feature that would allow the faucet to flow up to 2.2 gpm for pot filling, consistent with this allowance within many state standards. For faucets with this feature, EPA would likely require the faucet to automatically return to the WaterSense maximum flow rate (e.g., 1.8 gpm or 1.5 gpm) after release of the actuator by the user, after a certain period of time, or upon the next use. **EPA is seeking input on its intent to allow a temporary override feature to allow kitchen faucets to operate at up to 2.2 gpm for pot filling.**

EPA intends to measure kitchen faucet flow rate consistent with the procedures in ASME A112.18.1/CSA B125.1. **EPA is seeking input on whether there are any issues or concerns with using the ASME A112.18.1/CSA B125.1 testing procedures to measure kitchen faucet flow rate.** However, ASME A112.18.1/CSA B125.1 does not have explicit test procedures to evaluate the flow rate or functionality of the temporary override feature. Therefore, EPA intends to coordinate with the ASME A112/CSA B125.1 Technical Committee on Plumbing Fittings to establish and incorporate these test procedures within the ASME A112.18.1/CSA B125.1 standard. The test procedures should address flow rate measurement for the override setting, as well as functionality to ensure the flow rate resets after the prescribed period of time, the release of the override actuator by the user, or upon the next use.

For multi-modal kitchen faucets, EPA intends to require all modes to meet the maximum flow rate criteria (excluding the temporary override function). In addition, for kitchen faucets packaged and sold with a side spray, EPA intends for the maximum flow rate criteria to apply to the side spray. **EPA is seeking feedback on its intended efficiency criteria for multi-modal kitchen faucets and side sprays packaged with a kitchen faucet.**

Public Lavatory Faucets/Faucet Accessories

Federal regulations do not differentiate between private and public lavatory faucets. Therefore, the 2.2 gpm maximum flow rate established under 10 CFR Part 430.32(o) currently applies to public lavatory faucets as well. ASME A112.18.1/CSA B125.1 and the applicable model plumbing codes in the United States, including the International Plumbing Code and the Uniform Plumbing Code, establish the maximum flow rates for public lavatory (other than metering) faucets at 0.5 gpm.

[12] Appliance Standards Awareness Project. *Faucets*. Accessed October 19, 2023. https://appliance-standards.org/product/faucets.

Driven largely by green building codes and standards that award credit points or maintain criteria related to water efficiency (e.g., the U.S. Green Building Council's LEED rating system), there are public lavatory faucets that operate at flow rates of 0.35 gpm (1.3 L/min), resulting in potential water savings.

EPA is considering establishing a maximum flow rate of other 0.5 gpm, 0.4 gpm (1.5 L/min), or 0.35 gpm for public lavatory faucets. A 0.5 gpm requirement would encourage conformance with the current code and give EPA an opportunity to introduce performance requirements to ensure that labeled faucets provide sufficient user satisfaction. A 0.4 gpm maximum would represent a 20 percent reduction from the code requirement, achieving WaterSense's program goal of labeling devices that use 20 percent less water than a standard device. A 0.35 gpm maximum would align with most currently available higher-efficiency public lavatory faucets in the market, often used to meet green building criteria. **EPA is seeking feedback on its intent to establish a maximum flow rate requirement of 0.5 gpm, 0.4 gpm, or 0.35 gpm for public lavatory faucets.**

EPA intends to measure non-metering public lavatory faucet flow rate consistent with the procedures in ASME A112.18.1/CSA B125.1. **EPA is seeking input on whether there are any issues or concerns with using the ASME A112.18.1/CSA B125.1 testing procedures to measure public lavatory faucet flow rate.**

For metering faucets, federal regulations establish a maximum water consumption of 0.25 gpc. Requirements to promote greater water efficiency have been adopted in the California Green Building Standards Code (CALGreen), in which metering faucets are required to have a maximum flow rate of no more than 0.2 gpc.[13] EPA also identified requirements that apply to the cycle time of metering faucets. The Americans with Disabilities Act (ADA) requirements stipulate that for metering faucets, hand-operated (i.e., sensor) metering faucets must remain open for a minimum of 10 seconds to be ADA-compliant.

Similar to the suggested approach described for private lavatory faucets that have a metering function, EPA intends to allow public lavatory metering faucets to receive the WaterSense label provided that their flow rate, when converted from gpc to gpm, remains below the maximum flow rate for public lavatory faucets prescribed in the specification. For example, a metering faucet operating at 0.1 gpc (0.4 L/cycle) and that has an operating cycle of 12 seconds would have a resulting flow rate of 0.5 gpm. **EPA is seeking feedback on its intent to allow metering faucets to meet the established water efficiency criteria for public lavatory faucets by translating the maximum flow rate from gpc to gpm.**

EPA is interested in data or studies to assess the current public lavatory faucet market, including the proportion of available products installed in public restrooms that operate at different flow rates. **EPA is seeking data or studies relevant to public lavatory faucet water use to examine the viability of various maximum flow rate requirements and help estimate projected water savings.**

[13] 2022 California Green Building Standards Code, Title 24, Part 11 (CALGreen). https://codes.iccsafe.org/content/CAGBC2022P1.

Preliminary Water Savings Calculations

EPA has reviewed several studies related to faucet use and associated water consumption, including the Water Research Foundation's 2016 *Residential End Uses of Water, Version 2* study and the Aquacraft residential water conservation studies in Tampa, Seattle, and East Bay Municipal Utility District (EBMUD) completed in the early 2000s. EPA's previous water savings estimates for WaterSense labeled lavatory faucets operating at 1.5 gpm were based on the Aquacraft studies, in which water use was monitored at homes before and after installing high-efficiency fixtures. These studies provide helpful insight into the impact of high-efficiency fixtures on overall residential water use. However, they are not able to disaggregate faucet usage data to distinguish consumption due to kitchen faucets versus lavatory faucets, and therefore do not provide a helpful baseline for accurately estimating water savings. EPA is interested in identifying studies or data that are able to segregate kitchen and lavatory faucet usage to provide an accurate baseline from which to estimate potential water savings.

EPA would like to estimate the potential water savings that could be achieved by incorporating the water efficiency requirements and scope changes discussed above into a revised specification. **EPA is seeking any faucet market data, usage data, and studies to inform its faucet specification revisions and potential water savings of more efficient private lavatory faucets, public lavatory faucets, and kitchen faucets within both residential and non-residential applications.**

V. Performance

The current specification includes the following performance requirements for private lavatory and bar sink faucets:

- The minimum flow rate shall not be less than 0.8 gpm (3.0 L/min) at a pressure of 20 psi at the inlet when water is flowing.

The minimum flow rate of a lavatory faucet or lavatory faucet accessory shall be tested in accordance with the procedures in ASME A112.18.1/CSA B125.1. A lavatory faucet is considered to meet the flow rate requirements if it is equipped with a lavatory faucet accessory that meets the flow rate criteria.

The specification also states that flow rate shall meet the testing verification protocol as described in 10 CFR 430 Subpart F, Appendix B. As previously mentioned, 10 CFR 430 Subpart F, Appendix B has been superseded by 10 CFR 429.28. EPA has issued two technical clarifications related to the minimum flow rate criteria for lavatory faucets. EPA intends to modify the *High-Efficiency Lavatory Faucet Specification* to incorporate the following clarifications into criteria for faucets:

- LF-1213-2: Applicability of Minimum Flow Rate Requirement. EPA states that for a lavatory faucet that can operate in multiple modes, only one mode must meet all of the requirements of the *High-Efficiency Lavatory Faucet Specification*, including the minimum flow rate, in order to earn the WaterSense label. However, all modes must meet the maximum flow rate criteria.

- LF-1214-2: Minimum Flow Rate Verification Protocol. EPA states that licensed certifying bodies should similarly refer to 10 CFR 429.28 with modifications provided by the clarification when verifying the minimum flow rate for lavatory faucets.

The following discussion outlines EPA's preliminary considerations on revisions to the performance criteria for lavatory faucets intended for private use that fall under the scope of the current specification, as well as new performance criteria EPA is considering if it were to expand the scope of the specification to include additional faucet types.

Private Lavatory and Bar Sink Faucets/Faucet Accessories

A significant performance concern that EPA considered and addressed when developing the current specification is the potential for low water pressure to negatively impact faucet performance. The purpose of the minimum flow rate requirement is to ensure that enough flow is provided at low pressures to meet user performance expectations. The current specification establishes a minimum flow rate requirement of 0.8 gpm at 20 psi to address this concern. Based on comments received during development of the current specification and a lack of complaints regarding the performance of labeled faucets, EPA has determined that this minimum flow rate is effective at ensuring user satisfaction in homes and buildings with low water pressures.

EPA intends to maintain the current minimum flow rate requirement and require that all labeled private lavatory and bar sink faucets have a flow rate of at least 0.8 gpm at a pressure of 20 psi. As demonstrated in Table 2 on page 11, there are a significant number of currently labeled faucets that operate at maximum flow rates of 1.2 gpm or 1.0 gpm that can maintain this minimum flow rate requirement. Therefore, EPA does not foresee any issues with maintaining the current requirement, which remains important to prevent poor performance at low pressures and discourages the installation of faucets that do not have sufficient flow rate for private use settings. **EPA is seeking feedback on its minimum flow rate requirement. Are there any concerns with maintaining the same minimum flow rate of 0.8 gpm at 20 psi while lowering the maximum flow rate to 1.2 gpm or 1.0 gpm at 60 psi? EPA is seeking feedback on whether it should incorporate any other performance requirements in addition to minimum flow rate.**

In pursuit of potential water savings and/or green building certification, EPA is aware of some instances where lavatory faucets operating at 0.5 gpm or less are installed in private lavatories within single-family or multi-family properties. While faucets operating at this level may achieve water savings, EPA does not anticipate they will meet the performance demands of private lavatory faucets. EPA intends for the minimum flow rate requirement to discourage this practice. However, **EPA is seeking feedback on additional strategies to further discourage the installation of public lavatory faucets in private restrooms.**

Kitchen Faucets/Faucet Accessories

Kitchen faucets have distinctly different uses from lavatory faucets and therefore might require different performance metrics. Typical kitchen faucet uses include dishwashing, food rinsing, hand washing, and pot and glass filling. Water from kitchen faucets is also used in the operation of in-sink garbage disposal systems to help flush food particles down the drain. Due to the need for a certain flow rate of water to support these typical kitchen functions, EPA intends to

prescribe a minimum flow rate requirement for labeled kitchen faucets that is higher than its minimum flow rate for lavatory faucets. Similar to lavatory faucets, establishing a minimum flow rate would ensure kitchen faucets offer a degree of pressure compensation, where the flow rate for the faucet remains relatively steady across a range of operating pressures. EPA is considering setting the minimum flow rate at 1.0 gpm or 1.2 gpm at 20 psi. **EPA is seeking feedback on its intent to include a minimum flow rate requirement. Are there any concerns with prescribing a minimum flow rate of 1.0 gpm or 1.2 gpm at 20 psi?**

For multi-modal kitchen faucets, EPA intends to require only one "primary" mode (excluding the temporary override) to meet all performance requirements. This approach is similar to how WaterSense labeled multi-modal showerheads are tested according to ASME A112.18.1/CSA B125.1. **EPA is seeking feedback on its planned approach for labeling multi-modal kitchen faucets.**

While no performance tests or criteria currently exist for kitchen faucets within ASME A112.18.1/CSA B125.1, EPA is considering whether to incorporate additional performance requirements to ensure that labeled kitchen faucets can sufficiently perform rinsing and washing tasks. **EPA is seeking feedback on whether a minimum flow rate is sufficient to ensure kitchen faucet performance. Should EPA consider including additional requirements to address any other performance metrics (e.g., spray force, rinsability)?**

Public Lavatory Faucets/Faucet Accessories

EPA is interested in examining performance considerations that would apply to public lavatory faucets, where use is generally limited to hand washing. Therefore, performance considerations include the adequacy of water flow and spray force and comfort. For sensor faucets, sensor sensitivity and responsiveness might also be an important performance consideration.

While no performance tests or criteria currently exist for public lavatory faucets within ASME A112.18.1/CSA B125.1, EPA is considering whether to incorporate additional requirements within a potential specification to ensure adequate performance. EPA intends to establish a minimum flow rate requirement to address adequacy of water flow and ensure public lavatory faucets provide pressure compensation. EPA is requesting input on any additional performance criteria that it should consider.

EPA is seeking feedback on minimum flow rate recommendations and other performance requirements that it could include to address spray force, sensor responsiveness, and any other performance considerations applicable to public lavatory faucets.

VI. Product Marking, Documentation, and Marketing

WaterSense specifications typically include requirements for marking and product documentation to aid consumers in understanding the efficiency and performance of WaterSense labeled products. The current specification includes the following product marking and documentation requirements for private lavatory faucets:

- The lavatory faucet or lavatory faucet accessory 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, as established by this specification.
- 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]).

The specification also requires all labeled products to adhere to ASME A112.18.1/CSA B125.1, which requires all kitchen, lavatory, and metering faucet products and packaging to be marked with the manufacturer's specified maximum flow rate in L/min and gpm or L/cycle and gpc, as verified through the standard.

EPA has issued technical clarifications related to the marking, documentation, and marketing requirements for lavatory faucets. EPA intends to modify the *High-Efficiency Lavatory Faucet Specification* to incorporate the following clarification into its product marking requirements for faucets:

- LF-0113-1: Flow Rate Marking. EPA states that the manufacturer may mark the product with the maximum "rated" flow rate, which is defined as the flow rate of the faucet as specified by the manufacturer, verified through testing and in compliance with the specification.
- LF-1219-1: Number of Digits for Flow Rate Marking. EPA states that the manufacturer shall include flow rate markings on products and/or product documentation in either two- or three-digit resolution.
- LF-1221-1: Faucet Marking Requirements. EPA states that 16 CFR 305.24(a) have superseded the previous marking requirements that are cited in the specification—16 CFR 305.11(f). Therefore, the product and/or product packaging shall be marked in accordance with 16 CFR 305.24(a).

The following discussion outlines EPA's preliminary considerations on revisions to the product marking criteria for lavatory faucets intended for private use that fall under the scope of the current specification, as well as new performance criteria EPA is considering if it were to expand the scope of the specification to include additional faucet types.

Private Lavatory and Bar Sink Faucets/Faucet Accessories

EPA intends to maintain the current specification requirements for packaging, marking, and documentation for private lavatory and bar sink faucets. **EPA is seeking feedback on its intent to maintain the current packaging, marking, and documentation requirements for private lavatory and bar sink faucets.**

Kitchen Faucets/Faucet Accessories

EPA intends to require kitchen faucets to adhere to similar marking, packaging, and documentation requirements that are included in the current specification for lavatory faucets. **EPA is seeking feedback on its intent to require kitchen faucets to adhere to marking**

requirements similar to the lavatory faucet marking requirements included in the current specification.

Additionally, EPA may need to consider additional marking requirements to communicate the purpose and flow rate of the temporary override feature and the WaterSense required flow rate. The DOE's faucet marking criteria are incorporated within 16 CFR 305.24(a) and require faucets and their packaging to be labeled with their maximum flow rate. For kitchen faucets with a temporary override, the maximum flow rate would be the flow rate of the temporary override. DOE regulations do not allow other flow rates to be marked on the packaging. **EPA is seeking feedback on whether specific product or product packaging markings or information should be included for kitchen faucets equipped with a temporary override feature.**

Public Lavatory Faucets/Faucet Accessories

EPA intends to require public lavatory faucets to adhere to similar marking, packaging, and documentation requirements that are included in the current specification for lavatory faucets. Additionally, EPA is considering whether to require public lavatory faucet product packaging and documentation to include the language "Not for private lavatory use." EPA intends for this language to discourage installation of public lavatory faucets in private settings. Public lavatory faucets are not designed to adequately perform the same functions as private lavatory faucets. Therefore, installing them in private settings can lead to poor performance and user dissatisfaction. **EPA is seeking feedback on its intent to require public lavatory faucets to adhere to similar marking requirements included in the current specification and for packaging and product documentation to be marked with "Not for private lavatory use."**

VII. System Impacts and Other Considerations

Some interested parties have expressed concern that lower faucet flow rates result in longer residence time for water in the distribution system, which could potentially lead to chemical, biological, and physical water quality issues. EPA has also heard concerns related to lower flow rates and longer wait time for hot water arrival at the faucet. **EPA is seeking any data or studies related to lower flow faucets and increased water stagnation, water quality issues, increased hot water wait times, or other unintended consequences.**

VIII. Effective Date and Transition Timing

The current certification status of some private lavatory faucet models may be affected by EPA's intended revisions; therefore, decertification or recertification of currently labeled products may be required. EPA intends to provide an appropriate transition time prior to and/or following the applicable effective date of any specification revision. Upon release of the draft specification, EPA will discuss with industry which products the transition process will apply to and the associated transition period such that, at the time the final specification is released, EPA has established clear requirements for WaterSense manufacturer partners and licensed certifying bodies regarding product certification and labeling during the transition period between specification versions.

As part of the transition period, EPA anticipates the following activities being required from licensed certifying bodies and WaterSense partners, including manufacturers, private labelers, retailers, and distributors. Based on the criteria of the revised specification (i.e., Version 2),

licensed certifying bodies will need to review their certification listings to determine which products must be removed from the certified products list or retested. Following the effective date of the revised specification, licensed certifying bodies will need to submit updated Product Notification Templates communicating the resulting list of labeled models for upload into the WaterSense Product Search Tool. Manufacturer partners and private labelers will be responsible for updating product packaging, documentation (e.g., specification sheets), marketing material, web pages, and online materials to remove the WaterSense label or designation from any models that are no longer certified.

EPA is considering establishing a transition period of six to 12 months before the revised specification will become effective. This timeline is in alignment with other EPA and U.S. DOE product certification programs and would permit the sale of current inventories of labeled models. Upon the effective date, EPA will designate models deemed ineligible under the revised specification as "discontinued." Under EPA's current process, models marked as discontinued will remain on the WaterSense Product Search Tool for six months to allow time for previously manufactured and labeled models to be sold in the marketplace. EPA does not intend to require manufacturers to destroy existing products, product packaging, or other printed materials that bear the WaterSense label and will consider a pause on brand monitoring activities during and immediately following the transition period.

IX. Summary of Information Requests

EPA is requesting feedback on all aspects of this notice. Summarized below are the specific outstanding issues, questions, and concerns about which EPA is seeking input prior to drafting its revised specification for faucets. All interested parties are encouraged to submit information and comments to watersense-products@erg.com.

Scope and Definitions

- Are there other accepted industry definitions relevant to faucets that EPA should consider?
- Are the proposed definitions for "private lavatory faucet" and "bar sink faucet" acceptable?
- Is the proposed definition for "kitchen faucet" acceptable?
- Should EPA include kitchen faucets and kitchen faucet accessories in the scope of its revised faucet specification?
- Should EPA include multi-modal kitchen faucets in the scope of its revised faucet specification?
- Is the proposed definition for "public lavatory faucet" acceptable?
- Should EPA include public lavatory faucets and public lavatory faucet accessories in the scope of its revised faucet specification?
- Are the proposed definitions for "metering faucet" and "self-closing faucet" acceptable?
- Is the proposed definition for "cold-start faucet" acceptable, and should EPA use the specification as a mechanism to encourage these more energy-efficient faucet types?
- Are there any other faucet types EPA should consider explicitly excluding from the scope of a revised specification?

General Requirements

- Should EPA require all labeled faucets to conform to applicable requirements in ASME A112.18.1/CSA B25.1 and NSF/ANSI Standard 61, Section 9?

Water Efficiency

Private Lavatory and Bar Sink Faucets

- Should EPA lower the maximum flow rate for private lavatory and bar sink faucets to 1.2 gpm or 1.0 gpm?
- Are the flow rate testing procedures in ASME A112.18.1/CSA B125.1 and referenced in the current specification sufficient for measuring private lavatory and bar sink faucet flow rates?
- Are there any potential concerns with requiring private lavatory metering faucets to meet the maximum flow rate requirement when converted from gpc to gpm?

Kitchen Faucets

- Should EPA establish a maximum flow rate for kitchen faucets of 1.8 gpm or 1.5 gpm?
- Should EPA allow for a temporary override feature that allows kitchen faucets to operate at up to 2.2 gpm for pot filling?
- Are the ASME A112.18.1/CSA B125.1 flow rate testing procedures sufficient for measuring kitchen faucet flow rate?
- For multi-modal kitchen faucets and side sprays packaged with a kitchen faucet, should EPA require all modes to meet the maximum flow rate criteria (excluding the temporary override function)?

Public Lavatory Faucets

- Should EPA establish a maximum flow rate for public lavatory faucets of 0.5 gpm, 0.4 gpm, or 0.35 gpm?
- Are the ASME A112.18.1/CSA B125.1 flow rate testing procedures sufficient for measuring public lavatory faucet flow rate?
- Are there any potential concerns with requiring public lavatory metering faucets to meet the maximum flow rate requirement when converted from gpc to gpm?
- Are there any market data or studies related to public lavatory faucet use that EPA should consider when determining a maximum flow rate requirement or potential water savings?

Preliminary Water Savings Calculations

- Are there any faucet market data, usage data, or studies that could help inform EPA's specification revision and help EPA estimate water savings from different faucet categories?

Performance

Private Lavatory and Bar Sink Faucets

- Should EPA maintain its minimum flow rate requirement of 0.8 gpm at 20 psi for private lavatory faucets (even if it lowers the maximum flow rate criteria)?

- What strategies should EPA implement to further discourage the installation of public lavatory faucets and faucet aerators in private restrooms?
- Should EPA incorporate any other performance requirements in addition to minimum flow rate to ensure sufficient private lavatory faucet and bar sink faucet performance?

Kitchen Faucets

- Should EPA prescribe a minimum flow rate for kitchen faucets at 1.0 gpm or 1.2 gpm at 20 psi?
- Should EPA allow "multi-modal" faucets to receive the WaterSense label provided that all modes meet the maximum flow rate requirement and at least one mode meets all performance requirements?
- Should EPA incorporate any other performance requirements in addition to minimum flow rate to ensure sufficient kitchen faucet performance?

Public Lavatory Faucets

- Should EPA prescribe a minimum flow rate for public lavatory faucets?
- Should EPA incorporate any other performance requirements in addition to minimum flow rate to ensure sufficient public lavatory faucet performance?

Marking and Product Documentation

Private Lavatory and Bar Sink Faucets

- Should EPA maintain its current packaging, marking, and documentation requirements for private lavatory faucets?

Kitchen Faucets

- Should EPA require kitchen faucets to adhere to the maximum flow rate marking requirements prescribed in the current specification?
- Would the temporary override feature for kitchen faucets impact product marking and packaging requirements, especially as they pertain to DOE's marking requirements?

Public Lavatory Faucets

- Should EPA require public lavatory faucets to adhere to the maximum flow rate marking requirements prescribed in the current specification and additionally require product packaging and documentation be marked with "Not for private lavatory use."?

System Impacts and Other Considerations

- EPA is seeking any data or studies related to low-flow faucets and increased water stagnation or water quality issues.

X. Schedule and Next Steps

EPA is requesting input, supporting information, and data from all interested parties on topics discussed in this NOI and otherwise related to the *High-Efficiency Lavatory Faucet Specification*. Interested parties can provide input to EPA regarding any of the issues presented

in this notice by submitting written comments to watersense-products@erg.com. Comments and information on the issues presented in this NOI are welcome and will be taken into consideration as EPA revises its WaterSense specification for faucets.

EPA will hold a public meeting via webinar to discuss the information presented in this NOI.