

WaterSense® Notice of Specification Review Public Meeting Summary

February 14, 2019, 2:00 to 4:00 p.m. Eastern, Webinar

Meeting Summary

Stephanie Tanner, the U.S. Environmental Protection Agency's (EPA) WaterSense program's Lead Engineer, welcomed everyone to the meeting, clarified how to use the webinar software, and reviewed the meeting agenda and purpose for the audience. The purpose of the webinar was to provide an overview of the WaterSense program, introduce requirements from the *America's Water Infrastructure Act of 2018*, and review the *WaterSense Notice of Specification Review*.

The *WaterSense Notice of Specification Review* and the PowerPoint slides from this presentation can be reviewed on the WaterSense website at www.epa.gov/watersense/product-specification-review. A full list of the attendees and a list of presenters are presented in Appendix A. The presentation discussion as well as participant questions and comments are summarized below.

1. Introduction

Ms. Tanner provided an overview of WaterSense, a voluntary program that labels water-efficient, high-performing products, and described the program's history, vision, and typical practices. She also reviewed the wide array of labeled product categories and trends in WaterSense labeled technology adoption rates and the number of labeled product models across categories. She discussed the program's accomplishments, noting that, through 2017, WaterSense has helped save 2.7 trillion gallons of water and \$63.8 billion in water and energy bills.

Ms. Tanner then provided an overview of the *America's Water Infrastructure Act of 2018*, which included authorization of the WaterSense program and defined the scope of products and systems that could be included in the program. The *America's Water Infrastructure Act* also directed EPA to conduct a comprehensive review of product specifications developed prior to 2012. Ms. Tanner explained the criteria EPA will use to determine if major revision of a given specification is warranted. She then reviewed which specifications are eligible for review and revision, including the specifications for tank-type toilets, flushing urinals, lavatory faucets and faucet accessories, showerheads, and weather-based irrigation controllers. She concluded this section by reviewing information related to the release of the *WaterSense Notice of Specification Review*, which is the subject of the webinar.

2. WaterSense Evaluation Criteria for Specification Revisions

EPA has not yet made a major revision to a product specification, only issuing slight modifications or clarifications. However, in 2014, EPA revised the *WaterSense Professional Certification Program Labeling System* for irrigation professionals. Ms. Tanner noted that EPA plans to engage with industry throughout this specification review and revision process. Ms.

Tanner then discussed the conditions that may trigger a technical revision to a WaterSense specification, as detailed in the *WaterSense Program Guidelines* (www.epa.gov/watersense/program-guidelines), and the criteria EPA considers in determining the feasibility or necessity of a revision. She explained that EPA is seeking feedback on these criteria or other factors it should consider for each specification undergoing EPA's review. She then reviewed the general questions EPA requests stakeholders consider when providing feedback on any or all of the specifications.

- Beyond market transformation and national water savings, what other considerations should WaterSense include in its decision-making process for specification revision (e.g., stakeholder support, rebate availability)?
- For each product specification, what water efficiency improvements should be made to the WaterSense specification?
- For each product specification, what updates to performance criteria or referenced standards should WaterSense consider incorporating into the specification that would benefit the user experience and ensure long-term water savings?
- For each product specification, what other classes of products or new technologies within the overarching product category should WaterSense consider incorporating into the scope of the specification?
- What new studies or data on water efficiency, performance, or water savings related to these product categories should WaterSense be aware of?
- For each product specification, what unintended consequences could result from increasing water efficiency requirements of a WaterSense specification?
- What other categories of products with quantifiable water savings and proven performance should WaterSense consider labeling? Any suggestions should be accompanied with data and information to support inclusion in the program.

Participant Questions

“Why was the specification for pre-rinse spray valves sunset?” Ms. Tanner explained that the U.S. Department of Energy (DOE) updated the national standard to essentially meet the WaterSense level, leaving very little room for a revised WaterSense specification with stricter water efficiency criteria. Following a discussion with manufacturer partners, EPA received industry support to sunset the specification.

“Does EPA coordinate its specifications with similar activities in different states to avoid conflicts?” Ms. Tanner explained that, in general, EPA works with states to harmonize their work and product test protocols but has no control over states' decisions. EPA shares information and communicates consistently with states and standard committees to work bilaterally throughout their regulation development processes.

“Would EPA consider looking at drain line carry and low-flow thresholds?” Ms. Tanner responded yes and noted that EPA would be very interested in any information stakeholders could share to update EPA’s research on the topic. She also described EPA’s previous collaboration with National Institute of Standards and Technology (NIST), which helped produce the original WaterSense specification for tank-type toilets.

“Would EPA consider non-water or active enzyme urinal models?” Ms. Tanner noted that EPA is not pursuing this product category at this time but would be open to any information stakeholders would like to share. She then clarified that the urinals discussed in this presentation were flushing urinals, which already have a WaterSense specification in place.

“Would EPA consider labeling water softeners?” Ms. Tanner noted that EPA currently has a Notice of Intent (NOI) available on water softeners, but EPA received significant pushback from wastewater utilities, and therefore, is not pursuing this product category at this time.

3. Summary of WaterSense Product Specifications and Market Information

Robbie Pickering (Eastern Research Group, Inc. (ERG)) summarized the current information WaterSense has regarding the specification criteria and product market for tank-type toilets, flushing urinals, lavatory faucets and faucet accessories, and showerheads, which are each eligible for revision. WaterSense intends to build upon this information through collaboration with interested stakeholders to inform its specification revision decisions. Mr. Pickering clarified that EPA has not yet conducted new market research, and market data presented for each of the specifications are based on information reported to WaterSense by its manufacturer partners.

Plumbing Fixtures

Mr. Pickering reviewed the respective histories and statuses of the two plumbing fixture WaterSense specifications eligible for review: tank-type toilets and flushing urinals. He also reviewed the water efficiency and performance criteria stipulated in each specification and EPA’s current considerations and outstanding questions about revision, which include changes in the market place, potential expansion of scope, and overall plumbing system concerns.

Participant Questions

“Would EPA consider updating the flush performance criteria for tank-type toilets?” Mr. Pickering responded EPA does not currently track individual product performance levels because product evaluation for the WaterSense label is pass/fail. However, there are other testing programs that EPA could look to for independent data to support differentiated thresholds for consideration.

“Does EPA expect to rely on existing data and studies for revisions to standards? Or does EPA anticipate conducting further data collection and study in 2020 and beyond, based on the comments it receives through this process?” Ms. Tanner responded that EPA will initially rely on a review of existing data and stakeholder submissions but may pursue additional research when evaluating individual product specifications. However, the timeline (the review must be completed by the end of calendar year 2019) does not allow for extensive data collection efforts.

“Why are toilets required to be ceramic?” Ms. Tanner clarified that this is not a requirement in the *WaterSense Specification for Tank-Type Toilets*.

“Will EPA evaluate/endorse water saving features to be included in toilet manufacturing that are newly patented but are not yet manufactured?” Ms. Tanner clarified that, while EPA does keep well-informed on new and innovative technologies in the plumbing industry, the WaterSense program is not intended to recognize these specific innovative technologies. The program also does not directly recognize proprietary technologies.

It was suggested that EPA consider research and study of sensor-activated flush toilets. Ms. Tanner responded that most of the program’s research to date has shown that these technologies are not generally associated with considerable water savings. Ms. Tanner also clarified that EPA does not look at the activation mechanism in the product but rather the water saving mechanism.

“In addition to potential premise plumbing impacts, does EPA consider potential impacts to utilities’ water distribution systems and sewer collection systems?” Ms. Tanner responded that EPA certainly considers these impacts as part of its evaluation criteria. She also noted that EPA would be open to discussions with stakeholders and to reviewing empirical data on this topic.

“How is WaterSense tied up with sustainability and does EPA collaborate with U.S. Green Building Council (USGBC)?” Ms. Tanner responded that WaterSense is a tool in the proverbial water efficiency toolkit, however, it is not a lifecycle program. She also clarified that EPA does collaborate with USGBC and other green building standards but does not have any specific initiatives developed with them.

In regards to hybrid urinals, a commenter indicated that “it is important to point out to stakeholders that the ASME A112.19.19 standard includes a definition and performance criteria for drain cleansing features [for non-water urinals]; so, while you indicate that there is only one product [currently on the market], there [are] no constraints on other products to be developed and tested to the same standard. One issue missing from the specification for flushing urinals is that it allows a manufacturer of WaterSense labeled flushing urinals to provide electronic control that can automatically change the flush volume in excess of that allowed under WaterSense. There should be explicit language prohibiting this unless data is provided that proves this saves water.” Ms. Tanner responded that the WaterSense specification does include criteria prohibiting manufacturers from providing information on how to change the flush volume of labeled products, but electronic flush mechanisms are a technological problem that arose after the publication of *the WaterSense Specification for Flushing Urinals*. She noted EPA would be interested in discussing this issue further with stakeholders and manufacturers.

“The toilet specification should be updated to limit the maximum flush volume to be 1.28 gallons per flush (gpf) for the full flush on dual flush toilets—this would ensure water savings despite user selection of the correct flush.” Ms. Tanner responded that EPA would consider this.

“Are the savings claims made by WaterSense based on engineering studies or based on actual consumption studies at homes (using data loggers)?” Ms. Tanner noted that the program relies largely on existing data for estimating water savings, as opposed to collecting primary data.

However, for products without clear water savings studies or performance criteria, EPA has led the effort to develop research or test methodologies. EPA's work with pre-rinse spray valves is an example of its primary data collection.

A number of questions were received inquiring about the materials used for the presentation, Ms. Tanner clarified that the presentation slide deck, a meeting summary, and a recording will all be made available on the WaterSense Product Specification Review web page (www.epa.gov/watersense/product-specification-review).

Plumbing Fittings

Mr. Pickering reviewed the histories and statuses of the two WaterSense specifications for plumbing fittings eligible for review: lavatory faucets and faucet accessories as well as showerheads. He also reviewed the water efficiency and performance criteria stipulated for these specifications and EPA's current considerations and outstanding questions regarding revisions, including changes in the market place, potential expansions of scope, health and safety issues, and plumbing system concerns.

Participant Questions

"Has WaterSense seen a significant reduction in the number 1.5 gallons per minute (gpm) models being certified now that the California standard is 1.2 gpm?" Ms. Tanner responded that EPA will look into that information. Mr. Pickering noted an increase in WaterSense labeled 1.2 gpm models in recent reporting years based on the California standard.

"Would EPA consider revisions for preventing/revoking labels for products like showerheads that have "easily" removable flow restrictors? This is especially important for municipalities that use the WaterSense specification to offer rebates to reduce water use rather than just replace an old showerhead." Ms. Tanner acknowledged that the current national standard covering showerheads has requirements regarding the difficulty of removing the flow restrictor and EPA can examine this in conjunction with the standards committee. Mr. Pickering noted that the current WaterSense specification prohibits manufacturers from sharing this type of information with customers, although EPA cannot control what other plumbing professionals or consumers choose to post on the internet. The commenter responded that, "The issue with people adjusting flow rates is that landlords are the ones that install the showerheads and the tenants increase the flow rates to meet their preferences." Another commenter indicated that tamper proofing is beneficial for jurisdictions that rely on WaterSense as the maximum standard.

"What does EPA mean by "deck mounted" faucets, in reference to new faucet categories?" Mr. Pickering clarified that this term implies bar faucets or possibly laundry faucets and acknowledged that EPA has received many inquiries from manufacturers on eligibility of these types of faucets; however, a specific definition may not be available at this time.

"Is there a department in California that one could visit to place standards prior to the national standards?" Ms. Tanner noted that plumbing or water efficiency standards are typically established by the California Energy Commission (CEC), but CEC does not work with the national standards body, which is DOE.

“In addition to trends in new certifications for lavatory faucet models, would it be possible to make similar data available to stakeholders for the other specifications as part of this review?” Ms. Tanner responded that EPA would look into establishing trends as part of its product research.

“Instead of reducing the flow rate required for labeling across the board, would it be worthwhile to adopt a multi-level labeling option?” Ms. Tanner explained that EPA made a conscious choice at the outset of the WaterSense program not to produce a tiered labeling system to simplify consumer choice. It also helps streamline product testing for manufacturers.

“Is WaterSense going to consider graywater technologies for labeling?” Ms. Tanner explained that EPA is not currently opposed to or actively pursuing this technology category, but more information would be needed for the program to further progress in this development. Mr. Pickering noted that EPA would be interested in any information that contributes to standardizing product performance or water savings in this product category.

Irrigation Controllers

Joanna Kind (ERG) reviewed the history and status of the *WaterSense Specification for Weather-Based Irrigation Controllers*. She explained the different terms and types of products covered under this specification and the test method currently used for specification testing. She reviewed the water efficiency and performance criteria stipulated for this specification and EPA’s current considerations and outstanding questions on revision, including changes in the market place, planned changes to the test protocol, updating water savings estimates, and reevaluating product marketing and labeling requirements.

Future Product Categories

Ms. Kind discussed the additional products and product categories included within WaterSense’s purview, as discussed in the *America’s Water Infrastructure Act of 2018*, and she encouraged those that would like EPA to develop a WaterSense specification for products that fall within these categories to submit comments and appropriate data for EPA consideration. She also acknowledged the products categories for which EPA recently released NOIs: pool covers and soil moisture-based control technologies. She concluded by reviewing both the technical and market factors that EPA uses to evaluate product candidates.

4. Timeline, Comment Deadline, and Future Stakeholder Meetings

Ms. Tanner reviewed the next steps in the specification review process and reminded attendees to submit comments, data, and questions on the *WaterSense Notice of Specification Review* to watersense-products@erg.com. She noted that **submissions must be received by March 15, 2019** to ensure they will be considered in the review process but emphasized that EPA was eager to review all information. She also reviewed the instructions for claiming submissions as confidential business information (CBI). Ms. Tanner then reviewed the tentative schedule for

upcoming product-specific industry webinars scheduled throughout Spring 2019 and noted that EPA will work with industry representatives to schedule these meetings.

Ms. Tanner concluded the webinar by reviewing the typical specification development and revision process and indicated where within this process EPA currently stands regarding specification reviews, which is Product Research. She also emphasized that if extensive changes are made to a specification, then products must be transitioned and possibly re-certified to the new specification. If required, EPA will have extensive conversations with stakeholders on how to most efficiently execute this transition with minimal pain to stakeholders. A grace period will likely be part of this transition. Ms. Tanner concluded by providing contact information for the program and reiterating the Product Specification Revision web page, www.epa.gov/watersense/product-specification-review.

Participant Questions

“How can I participate in the industry webinars?” Ms. Tanner explained that interested parties should contact their industry representatives and those that received notice of this webinar will receive notice of future webinars.

“What kind of data would EPA want to review from water utilities to determine if a specification needs to be revised?” Ms. Tanner explained they would like to know what utilities are comfortable promoting in a potential specification or revision. She also noted EPA would be particularly interested in information in problems wastewater utilities encounter with declining flows.

“Since EPA has looked at irrigation controllers, is there any appetite to look at cooling tower controllers?” Ms. Tanner noted that EPA is already researching this product category but is approaching it from a new systems-based approach, modeled after the work EPA has accomplished in the irrigation industry. “Is EPA aware of the Alliance for Water Efficiency (AWE) Cooling Tower Research?” Ms. Tanner acknowledged that EPA is aware of this research.

“What is the timeline on the systems certification?” Ms. Tanner noted that there is no timeline associated within this certification at this time, and the specification review process will take priority within the program.

“Are there any notable changes to annual reporting?” Ms. Tanner explained that some minor changes occur every year and these changes were recently discussed with manufacturers. This information is available on the WaterSense website.

“Beyond your compatibility list for irrigation controllers, are you considering some kind of online tool that's easier to navigate?” Ms. Tanner explained EPA has limited ability to maintain online tools, so the spreadsheet summarizing irrigation controller compatibility (available at www.epa.gov/watersense/product-search) is the current priority.



Ms. Tanner adjourned the meeting by encouraging those with outstanding questions to contact the WaterSense Helpline at watersense@epa.gov or (866) WTR-SENS (987-7367) and thanking everyone for their participation.

Appendix A: Meeting Participants

Attendee	Organization
Jordan Acton	A2LA
Jacob Adili	UL LLC
Abbie Batog	NSF International
John Bertrand	Fortune Brands Global Plumbing Group
Veronica Blette	U.S. Environmental Protection Agency (EPA)
Savannah Block	The Russell Group
Melissa Bomar	City of Tempe (Arizona)
Steve Bruce	Bruce Media Group-Patent Owner
Jill Brumand	City of Scottsdale (Arizona)
Matt Bruns	The Toro Company
Eileen Burke	Florida Home Partnership
Kevin Cavaioli	General Public
Tyler Cain	Lightly Treading, Inc.
Celeste Calhoun Johnson	Sloan Valve Company
Maribel Campos	ICC-Evaluation Services (ES)
Adam Carpenter	American Water Works Association (AWWA)
Joe Cavett	QAI Laboratories
Siying Chen	Masco Corporation
Bill Christiansen	Alliance for Water Efficiency (AWE)
Jim Cika	International Code Council (ICC)
Amber Clark	HydroSystems-KDI
Sharon Clement	Town of Danvers, Public Works (Massachusetts)
Matthew Conway	Rain Bird
Cara Corbin	City of Flagstaff Water (Arizona)
Stephanie Cote	City of Guelph (Ontario, Canada)
Shahram Dalvand	Rain SpA
Brittney Darnell	City of Fresno (California)
Jennifer Davidson	City of Surprise (Arizona)
Edwin deLeon	Golden State Water Company (California)
Dan Denning	City of Bend (Oregon)
Shirley Dewi	IAPMO R&T
Holly Dickman	City of Hays (Kansas)
Matt Domski	Minnesota Technical Assistance Program (MnTAP)
Kelly Doyle	City of Fort Collins Utilities (Colorado)
Michael Dukes	University of Florida
Julius Duncan	U.S. EPA

Attendee	Organization
Kevin Ernst	OS&B
Gene Faasse	T&S Brass and Bronze Works, Inc.
Nicholle Fratus	Contra Costa Water District (California)
Rob Furioso	Symmons
Rochelle Gandour-Rood	Tacoma Water (Washington)
Bill Gauley	Gauley Associates Ltd.
Jeffrey Gerbick	Delta Faucet Company
Mark Gibeault	Kohler Company
Daniel Gleiberman	Sloan Valve Company
Jessica Gomez	Estrada Construction, LLC
James Harris	Rain Bird
Richard Harrison	Control Precipitation Design, Inc.
Larry Himmelblau	Chicago Faucets
Nicole Haynes	Region of Waterloo (Ontario, Canada)
Jonathan Hole	Masco Canada
Gina Holguin	IAPMO R&T
Ed Hooper	City of San Juan Capistrano (California)
Greg Hunt	Chicago Faucets
Michael Häfliger	Franke Water Systems
Kelsey Jacquard	Hunter Industries
Ronn Jefferson	The Chicago Faucet Company / Geberit
Parker Johnson	T&S Brass and Bronze Works, Inc.
Kevin Kennedy	Niagara Conservation
John Koeller	MaP Testing
Thomas Kramer	Kohler Company
Louis Ku	Foremost Groups, Inc.
Deb Lane	City of Santa Rosa (California)
Nat Lee	NSF International
Brian Lee	Sonoma Water/Sonoma-Marin Saving Water Partnership
Will Leonard	LTS Design Group
Duncan Liang	CSA Group
Sean Liu	Pioneer Industries
Mark Malatesta	LIXIL Water Technology America (LWTA)
David L Marbry	Fluidmaster, Inc.
Ramiro Mata	American Society of Plumbing Engineers (ASPE)
Chris McDonald	Fortune Brands Global Plumbing Group
Bill McDonnell	Metropolitan Water District of Southern California
Cary McElhinney	U.S. EPA, Region 5

Attendee	Organization
Lisa McEvelly	Kliman Sales. Inc.
Kevin McJoynt	GERBER PLUMBING FIXTURES
Cambria Mcleod	Kohler Company
Jayant Mehta	myRainDancers
Andrew Morris	Metropolitan North Georgia Water Planning District
Tara O'Hare	U. S. EPA
Diane Ortiz	City of Fresno Water Conservation (California)
Thomas Pape	AWE / Best Management Partners
Preston Peterson	Water Pik, Inc.
Meghan Phillips	Delta Faucet Company
Wendy Pratt	Zurn Industries, LLC
Prasanth Ramakrishnan	International Accreditation Service (IAS)
Shabbir Rawalpindiwala	Kohler Company
Julie Riddle	SiteOne Landscape Supply
Tessa Roscoe	Eastern Research Group, Inc. (ERG)
Al Strickland	HIQH2O
Stephanie Salmon	Plumbing Manufacturers International (PMI)
Sayetsi Sanchez	City of Woodland (California)
David Schwartzkopf	Willoughby Industries
David Searcy	Medford Water Commission (Oregon)
Danira Serrano	Pfister
Farhad Shahriary	Acorn Engineering Company
Ralph Siciliano	Mirton
Matt Sigler	PMI
Brian Skeens	Jacobs
Marco Spaeth	NEOPERL
Elena Surovtsev	STG Engineering Inc.
David Thomas	CSA Group
Gary Tilkian	Metropolitan Water District of Southern California
Culver Van Der Jagt	Van Der Jagt Law Firm
Kimberly Wagoner	ERG
Robert Wanvestraut	South Florida Water Management District
Jeff Waterman	Liberty Pumps, Inc.
John Watson	Elkay
Abby Williams	Kearns Improvement District
Rebecca Winters	Region of Peel (Ontario, Canada)
Judy Wohlt	PMI
Ron Wolfarth	Rain Bird



Attendee	Organization
Roberto Zanola	CSA Group

Presenter	Organization
Stephanie Tanner	U.S. EPA
Joanna Kind	ERG
Robbie Pickering	ERG
Magaly Orozco	ERG