Summary of Comments on Notice of Recent Specifications Review and Request for Information on WaterSense Program

Docket Number EPA-HQ-OW-2020-0026

August 2020

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Summary of Comments on Notice of Recent Specifications Review and Request for Information on WaterSense Program

I. Introduction and Summary

On April 10, 2020, the U.S. Environmental Protection Agency (EPA) published a *Notice of Recent Specifications Review and Request for Information on WaterSense Program* in the *Federal Register* (85 FR 20268) and accepted public comments through July 24, 2020 through the associated Docket, EPA-HQ-OW-2020-0026. With the Federal Register Notice (FRN), EPA announced the completion of the review of the WaterSense product performance criteria as required under the America's Water Infrastructure Act (AWIA) of 2018. EPA also sought information to help it assess consumer satisfaction with WaterSense labeled products.

The FRN requested feedback on three specific issues. The text below in bold reflects the text from the Summary section of the FRN. It is followed by the description of the request in Section V of the FRN.

1. **EPA is seeking input and requesting information on any data, surveys, or studies to help assess consumer satisfaction with WaterSense labeled products, which could inform future product specification development.**
   Section V. text: Specifically, the EPA is requesting information on any data, surveys, or studies that have assessed consumer satisfaction with WaterSense labeled or standard products.
2. **EPA is also seeking input on how to design a study or studies to inform future reviews that incorporate customer satisfaction considerations.**
   Section V. text: Specifically, the EPA is seeking input on how it could design a study or studies for use in future reviews that incorporate customer considerations. For example, we are interested in input on how we could use a survey or surveys to determine what type of products consumers would like to see on the market, the performance attributes that are important to consumer choice and satisfaction, the range of performance customers are seeking in those attributes, and what additional features or options related to efficiency consumers would like to see in WaterSense products. The EPA is also interested in input on the collection method, frequency, and source of the information as we seek to balance any burden the collection would impose on the public with the usefulness the information would provide the Agency.
3. **EPA is also requesting input on whether it should include consumer satisfaction criteria into the WaterSense program guidelines and, if included, what criteria should be considered and how.**
   Section V text: Lastly, the EPA seeks input on whether there are specific consumer satisfaction considerations, test methods, or additional criteria it should consider adding to the WaterSense guidelines.

EPA received 110 public comments in response to the FRN, 43 of which were submitted anonymously. Three of the comments had multiple signatories representing 81 organizations. Section II provides a list of the commenters and their associated affiliations. Section III provides a list of the additional organizations that signed on to individual comment letters. Section IV includes a verbatim compilation of the comments and comment attachments, as received through Docket, EPA-HQ-OW-2020-0026.

The remainder of this section provides a brief summary of the commenter affiliations and comment content.

Table 1 summarizes the number of comment letters received, by affiliation type.

Table 1. Summary of Commenter Affiliations

Category	Number of Comments
General Public	58
Utilities (Water and Energy)	20
Associations and Non-Governmental Organizations	19
Private Sector	7
Governmental	6

Table 2 summarizes the general tenor of the content of each comment.

Table 2. Summary of Comment Tenor

Category	Number of Comments
Positive/Supportive of WaterSense Program	98
Neutral Toward the WaterSense Program	6
Negative Toward the WaterSense Program	1
Duplicate or Off-topic Comments	5

Table 3 summarizes the general posture of the comments toward incorporating customer satisfaction into WaterSense specifications and the WaterSense specification development guidelines.

Table 3. Summary of Support for Incorporating Customer Satisfaction into WaterSense Specifications and Development Guidelines (Issue #3)

Category	Number of Comments
Explicitly Supported Including Customer Satisfaction in Specifications/Guidelines	0
Explicitly Opposed to Including Customer Satisfaction in Specification/Guidelines	43
Unclear Response	3
No Comment (i.e., comment did not explicitly address)	59
N/A (e.g., duplicate or off-topic)	5

Table 4 summarizes other common topics or themes discussed within the comments.

Table 4. Summary of Other Topics Discussed in Comments

Category	Number of Comments
Provided Input on Data, Surveys, and/or Studies (Issue #1)	16
Provided Input on Design of Surveys or Studies (Issue #2)	11
Noted that Customer Satisfaction is Already a Consideration for Performance Criteria in Specifications	8
Supported EPA in Evaluating Customer Satisfaction as a Means to Improve WaterSense Brand	10
Mentioned Customer Satisfaction with Products Installed Through Rebates	8
Supported Decision Not to Revise WaterSense Specifications	12
Called for Specifications to Strengthen Water Efficiency Criteria (i.e., reduce flow rates/flush volume limits)	6
Provided Other Suggestions for Program Improvement	6

II. List of Comments Received

Table 5 provides a list of the commenters that submitted comments on the FRN, in order of receipt to the Docket. Rows shaded in green had comments with a positive tenor supportive of the WaterSense program. Rows shaded in yellow had comments with a neutral tenor, and rows shaded in red had a negative tenor. Rows without shading had comments that were off topic (e.g. request for an extension). The table also identifies the commenter's affiliation type and the Docket ID number for reference back to the original comment. Section IV provides the verbatim comments for each commenter.

Table 5. Summary of Commenters and Feedback on Issues from FRN

Document ID	Page Number	Commenter	Organization	Affiliation	Provided Input on Data, Surveys, and/or Studies (Issue #1)	Provided Input on Design of Surveys or Studies (Issue #2)	Include Customer Satisfaction in Specifications and Development Guidelines (Issue #3)
EPA-HQ-OW-2020-0026-0002	20	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0003	21	Anonymous	None	GP	Yes	No	No Comment
EPA-HQ-OW-2020-0026-0004	22	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0005	23	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0006	24	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0007	25	K. Luther	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0008	26	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0009	27	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0010	28	Anonymous	None	GP	Yes	No	No Comment
EPA-HQ-OW-2020-0026-0011	29	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0012	30	S. Cohen	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0013	31	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0014	32	Mary Ann Dickinson, President and Chief Executive Officer	Alliance for Water Efficiency (AWE)	A	No	No	Not Applicable

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EPA-HQ-OW-2020-0026-0015	34	Darcey Peterson, General Manager	King County Water District Number 90	U	No	No	No Comment
EPA-HQ-OW-2020-0026-0016	35	Department of Water and Power	City of Big Bear Lake	U	No	No	No Comment
EPA-HQ-OW-2020-0026-0017	36	Dain M. Hansen, Executive Vice President, Government Relations	International Association of Plumbing and Mechanical Officials (IAPMO)	A	No	No	Not Applicable
EPA-HQ-OW-2020-0026-0018	38	Anonymous	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0019	39	Anonymous	None	GP	Yes	No	No Comment
EPA-HQ-OW-2020-0026-0020	40	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0021	41	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0022	42	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0023	43	W. Hammond	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0024	44	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0025	45	Anonymous	None	GP	No	No	No Comment

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EPA-HQ-OW-2020-0026-0026	46	Ray Hoffman, Chief Executive Officer (CEO)	Cascade Water Alliance	U	No	No	No
EPA-HQ-OW-2020-0026-0027	48	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0028	49	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0029	50	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0030	51	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0031	52	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0032	53	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0033	54	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0034	55	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0035	56	Anonymous	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0036	57	V. Meyer Nixon	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0037	58	Anonymous	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0038	59	Anonymous	None	GP	No	No	No

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EPA-HQ-OW-2020-0026-0039	60	A. Sholinbeck	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0040	61	Anonymous	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0041	62	Anonymous	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0042	63	Anonymous	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0043	64	Anonymous	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0044	65	Kerry Stackpole, Chief Executive Officer (CEO) and Executive Director	Plumbing Manufacturers International (PMI)	A	No	No	Not Applicable
EPA-HQ-OW-2020-0026-0045	67	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0046	68	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0047	69	Shelley Flock, Conservation and Customer Service Field Manager and Ron Duncan, General Manager	Soquel Creek Water District	U	No	No	No Comment
EPA-HQ-OW-2020-0026-0048	71	Jennifer Burke, Director of Water	City of Santa Rosa Water Department	U	No	Yes	No

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EPA-HQ-OW-2020-0026-0049	75	Thomas A. Love, General Manager	Upper San Gabriel Valley Municipal Water District	U	No	No	No
EPA-HQ-OW-2020-0026-0050	77	C. Boyd	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0052	78	Grant Davis, General Manager	Sonoma County Water Agency (Sonoma Water)	U	No	No	No
EPA-HQ-OW-2020-0026-0053	81	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0054	82	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0055	83	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0056	84	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0057	85	Anonymous	C+C, Inc.	P	No	No	No Comment
EPA-HQ-OW-2020-0026-0058	86	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0059	87	Anonymous	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0060	88	Mark Fagin, Chair	Regional Water Providers Consortium Board	U	No	Yes	No

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EPA-HQ-OW-2020-0026-0061	90	Kristen Johnson, Government Affairs Specialist	Coachella Valley Water District (CVWD)	U	No	No	No
EPA-HQ-OW-2020-0026-0062	93	Brad Coffey, Manager, Water Resource Management	Metropolitan Water District of Southern California	U	No	No	No
EPA-HQ-OW-2020-0026-0063	97	Richard F. Harasick, Senior Assistant General Manager, Water Systems	Los Angeles Department of Water and Power (LADWP)	U	No	Yes	No
EPA-HQ-OW-2020-0026-0064	103	Anonymous	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0065	104	G. Tracy Mehan, III, Executive Director, Government Affairs	American Water Works Association (AWWA)	A	Yes	Yes	No
EPA-HQ-OW-2020-0026-0066	110	E. Joaquin Esquivel, Chair	California State Water Resources Control Board	G	No	No	No
EPA-HQ-OW-2020-0026-0067	114	D. Epley	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0068	115	Peter Mayer, Principal	WaterDM	P	Yes	No	No

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EPA-HQ-OW-2020-0026-0069	122	Jennifer L. Perry, Director, Water Planning and Management Division	Connecticut Department of Energy and Environmental Protection (CT DEEP)	G	No	No	No
EPA-HQ-OW-2020-0026-0070	125	K. Robinson	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0071	126	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0072	127	M. Magaña	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0073	128	Rick L. Callender, Chief of External Affairs	Santa Clara Valley Water District (Valley Water)	U	No	No	No
EPA-HQ-OW-2020-0026-0074	131	Erik Hitchman, General Manager	Walnut Valley Water District (WVWD)	U	No	No	No Comment
EPA-HQ-OW-2020-0026-0075	133	Kelly Kopp, Director	Center for Water Efficient Landscaping, Utah State University	G	No	No	No
EPA-HQ-OW-2020-0026-0076	136	Rick Maloy, President	Utah Water Conservation Forum	A	No	No	No

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EPA-HQ-OW-2020-0026-0077	139	Donald F. Greeley, Director	City of Durham Department of Water Management (DMW)	U	No	No	No
EPA-HQ-OW-2020-0026-0078	142	Katherine Zitsch, Director	Metropolitan North Georgia Water Planning District	U	Yes	No	No Comment
EPA-HQ-OW-2020-0026-0079	151	M. Martynowych	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0080	152	S. Elsa-Beech	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0081	153	Elizabeth Beardsley, Senior Policy Counsel	U.S. Green Building Council (USGBC)	A	No	No	No
EPA-HQ-OW-2020-0026-0082	157	Clifford C. Chan, General Manager	East Bay Municipal Utility District (EBMUD)	U	No	No	No Comment
EPA-HQ-OW-2020-0026-0083	159	Steven Westphal, Senior Legal Director, Commercial	Kohler Co.	P	Yes	No	Unclear
EPA-HQ-OW-2020-0026-0084	162	J. Jonker	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0085	163	S. Orum	None	GP	No	No	No Comment

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EPA-HQ-OW-2020-0026-0086	164	Morgan Shimabuku, Research Associate and Peter H. Gleick, President-emeritus	Pacific Institute	A	No	No	No Comment
EPA-HQ-OW-2020-0026-0087	168	Anonymous	None	GP	No	No	No Comment
EPA-HQ-OW-2020-0026-0088	169	Pluvial Solutions		P	No	No	No Comment
EPA-HQ-OW-2020-0026-0089	172	Gabe Maser, Vice President, Government Relations	International Code Council (ICC)	A	No	No	No
EPA-HQ-OW-2020-0026-0090	176	B. Grimm	None	GP	No	Yes	No Comment
EPA-HQ-OW-2020-0026-0091	177	N/A	Alliance for Water Efficiency (AWE) et al.	A	Yes	Yes	No
EPA-HQ-OW-2020-0026-0092	190	Brett Little	GreenHome Institute	P	No	No	No Comment
EPA-HQ-OW-2020-0026-0093	191	lyn S. Toole, Assistant Vice President, Sustainability & Green Building	National Association of Home Builders (NAHB)	A	Yes	Yes	No Comment
EPA-HQ-OW-2020-0026-0094	213	Clayton Traylor, Vice President (VP)	Leading Builders of America (LBA)	A	No	No	No

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EPA-HQ-OW-2020-0026-0095	216	Dain M. Hansen, Executive Vice President	International Association of Plumbing and Mechanical Officials (IAPMO)	A	Yes	Yes	No
EPA-HQ-OW-2020-0026-0096	221	Eric Olson, Senior Product Manager, and Louis Starr, Energy Codes and Standards Engineer	Northwest Energy Efficiency Alliance (NEEA)	A	No	No	Unclear
		Megan Geuss, Policy Associate	Appliance Standard Awareness Project (ASAP)	A			
EPA-HQ-OW-2020-0026-0097	224	Stan Hazan, Sr. Director, Regulatory Affairs	NSF International (NSF)	P	No	No	No Comment
EPA-HQ-OW-2020-0026-0098	227	Patrick Eilert, Manager, Codes & Standards	Pacific Gas and Electric Company	U	Yes	No	No
		Karen Klepack, Senior Manager, Building Electrification and Codes & Standards	Southern California Edison	U			

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		Kate Zeng, ETP/C&S/ZNE Manager, Customer Programs	San Diego Gas and Electric Company	U			
EPA-HQ-OW-2020-0026-0099	232	David Hochschild, Chair	California Energy Commission (CEC)	G	No	No	No
EPA-HQ-OW-2020-0026-0100	239	Denise L. Schmidt, Administrator of the Division of Water Utility Regulation and Analysis, and Kristy Nieto, Administrator of the Division of Digital Access, Consumer and Environmental Affairs	Public Service Commission of Wisconsin	G	No	No	No Comment

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EPA-HQ-OW-2020-0026-0101	242	Jennifer L. Jurado, Director and Chief Resilience Officer	Broward County's Environmental Planning and Community Resilience Division	G	No	No	No
EPA-HQ-OW-2020-0026-0102	245	Kerry Stackpole, Chief Executive Officer (CEO)/Executive Director	Plumbing Manufacturers International (PMI)	A	Yes	Yes	No Comment
EPA-HQ-OW-2020-0026-0103	251	M. Villere	None	GP	No	No	No
EPA-HQ-OW-2020-0026-0104	252	N/A	Plumbing Industry Leadership Coalition (PILC) et al.	A	Yes	Yes	No
EPA-HQ-OW-2020-0026-0105	256	David Searcy, Conservation Coordinator	Medford Water Commission (MWC)	U	No	No	No Comment
EPA-HQ-OW-2020-0026-0106	258	Candice Rupprecht, Water Conservation Manager	Tucson Water, City of Tucson, AR	U	No	No	No
EPA-HQ-OW-2020-0026-0107	261	John Farner, Government and Public Affairs Director	Irrigation Association	A	No	No	No Comment

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EPA-HQ-OW-2020-0026-0108	264	Gregory J. Walch, Chairman	Western Urban Water Coalition (WUWC)	U	Yes	Yes	Unclear
EPA-HQ-OW-2020-0026-0109	269	Mary Ann Dickinson, President and Chief Executive Officer (CEO) (original letter)	Alliance for Water Efficiency (AWE) et al.	A	No	No	Not Applicable
EPA-HQ-OW-2020-0026-0110	282	Mary Ann Dickinson, President and Chief Executive Officer (CEO) (re: showerheads)	Alliance for Water Efficiency (AWE) et al.	A	No	No	Not Applicable
EPA-HQ-OW-2020-0026-0111	287	Mary Ann Dickinson, President and Chief Executive Officer (CEO)	Alliance for Water Efficiency (AWE) et al.	A	Yes	No	No Comment
EPA-HQ-OW-2020-0026-0112	294	Mike Collignon, Executive Director	Green Builder Coalition	P	Yes	No	No

A: Association or Non-governmental Organization
G: Government
GP: General Public/Anonymous
P: Private Sector
U: Utility

III. Comments with Multiple Signatories

Three organizations submitted letters with multiple signatories representing 81 organizations as follows.

Alliance for Water Efficiency

In comment EPA-HQ-OW-2020-0026-0091, the Alliance for Water Efficiency (AWE) submitted comments on behalf of 62 organizations. These organizations are listed in Table 6 below.

Table 6. AWE Comment Letter Signatories

Organization	Organization
Alameda County Water District (California)	National Wildlife Federation
Alliance for Water Efficiency (AWE)	O'Cain Consulting
American Supply Association (ASA)	Peter Williams Solutions LLC
American Water	Plumbing-Heating-Cooling Contractors (PHCC)-National Association
American Water Works Association (AWWA)	Rancho Water
Arizona Municipal Water Users Association	Regional Water Authority (California)
Amy Vickers and Associates	Santa Rosa Water (California)
Bottom Line Utility Solutions	Sacramento Suburban Water District (California)
C+C, Inc	San Francisco Public Utilities Commission (California)
California Water Efficiency Partnership	Scottsdale Water (Arizona)
City of Ashland (Oregon)	SCV Water (California)
City of Bellingham (Washington)	Sonoma-Marin Saving Water Partnership
City of Bend (Oregon)	Sonoma Water (California)
City of Big Bear Lake Department of Water (California)	Soquel Creek Water District (California)
City of Charlottesville (Virginia)	Southern Nevada Water Authority (Nevada)
City of Durham (North Carolina)	T&S Brass and Bronze Works
City of Flagstaff (Arizona)	Tacoma Water (Washington)
City of Mesa (Arizona)	Texas Water Foundation
City of Sacramento (California)	Turfgrass Water Conservation Alliance
City of Westminster (California)	Utah State University, Center for Water Efficient Landscaping
Coachella Valley Water District (California)	United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States, Canada (UA)

Table 6. AWE Comment Letter Signatories

Organization	Organization
Denver Water (Colorado)	Upper San Gabriel Valley Municipal Water District (California)
EcoSystems, LLC	Utah Water Conservation Forum
Hawaii Commission on Water Resource Management	Valley County Water District (California)
International Association of Plumbing and Mechanical Officials (IAPMO)	Valley Water (California)
Las Vegas Valley Water District (Nevada)	Water Use it Wisely
Mesa Water (California)	Water Supply Citizens Advisory Committee to Massachusetts Water Resources Authority
Metropolitan North Georgia Water Planning District (Georgia)	WaterDM
Metropolitan Water District of Southern California (California)	Waterless Co
Monte Vista Water District (California)	WaterNow Alliance
Municipal Water District of Orange County (California)	Western Urban Water Coalition

California Investor Owned Utilities

As part of comment EPA-HQ-OW-2020-0026-0098, California Investor Owned Utilities (CA-IOU) submitted comments on behalf of 3 organizations. These organizations are listed in Table 7 below.

Table 7. CA-IOU Comment Letter Signatories

Organizations	
Pacific Gas and Electric Company (PG&E)	Southern California Edison (SCE)
San Diego Gas and Electric (SDG&E)	

Plumbing Industry Leadership Coalition

As part of comment EPA-HQ-OW-2020-0026-0104, the Plumbing Industry Leadership Coalition (PILC) submitted comments on behalf of 16 member organizations. These organizations are listed in Table 8 below.

Table 8. PILC Comment Letter Signatories

Organizations	
Alliance for Water Efficiency	Mechanical Hub
American Society of Plumbing Engineers (ASPE)	Plumbing Contractors of America
American Supply Association (ASA)	Plumbing-Heating-Cooling Contractors—National Association
American Society of Sanitary Engineering (ASSE)	Plumbing & Mechanical Group (BNP Media, Inc.)
Copper Development Association, Inc.	Plastic Pipe and Fittings Association (PPFA)
International Association of Plumbing and Mechanical Officials (IAPMO)	Plumbing Industry Leadership Coalition (PILC)
International Code Council	The American Rainwater Catchment Systems Association
Mechanical Contractors Association of America	The United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States, Canada (UA)

IV. Compiled Comments on Notice of Recent Specifications Review and Request for Information on WaterSense Program

The following is a compilation of the comments and comment attachments submitted to Docket Number EPA-HQ-OW-2020-0026 in response to EPA's *Notice of Recent Specifications Review and Request for Information on WaterSense Program*. The comments appear in order of receipt to the Docket and with no editorial changes to the comments (e.g., spelling, grammar).

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: April 11, 2020
Document ID: EPA-HQ-OW-2020-0026-0002

Comment Text:

I recommend the water sense be made mandatory with strict compliance and penalties to include prison for failing to participate.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: April 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0003

Comment Text:

I fully support the EPA's WaterSense program. The 2016 Residential End Use Study found that toilet double-flushing was not a statistically significant finding for high efficiency toilets. I believe President Trump is attacking this program to rile up his base of supporters. Water efficiency is critically important. It prolongs the life of our infrastructure, it saves consumers money, and it protects a precious, limited resource.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: April 30, 2020
Document ID: EPA-HQ-OW-2020-0026-0004

Comment Text:

I bought a Delta WaterSense certified toilet last summer of 2019 and installed it at my home. Its been working great and we love it. It saves water and takes care of business. Please keep this program going.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: April 30, 2020
Document ID: EPA-HQ-OW-2020-0026-0005

Comment Text:

biggest waste of money ever. Has done nothing to save water, in many situations people use more water because of waternonsense.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: April 30, 2020
Document ID: EPA-HQ-OW-2020-0026-0006

Comment Text:

One recommendation is that this is also discussed with the water reclamation facilities that are now having problems in the plants with less and less water flow coming into their facilities. We need to be careful in making flow rates less and less for showers, lavs, etc. might be doing more harm then good. We have also seen a large jump in Legionella since water flow rates are continuing to decline. These need to be discussed with organizations like ASPE who can help in these efforts to make more sense for this industry.

Commenter: Kathy Luther
Affiliation: General Public
Comment Date: April 30, 2020
Document ID: EPA-HQ-OW-2020-0026-0007

Comment Text:

We love the WaterSense labeling system. It is a great tool to help me identify efficient products, which is important to me. Labeling programs such as WaterSense allow the free market to work by providing important information to consumers. Without this information, people can't make informed choices. People interested in saving money, building our economy sustainably, and preserving water resources for future need this tool in order to make intelligient and rational decisions with their money.

Kathy Luther,
Indiana District 1
1703 Boca Lago, Valparaiso IN 46383

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: April 30, 2020
Document ID: EPA-HQ-OW-2020-0026-0008

Comment Text:

The WaterSense label has been very helpful to me in both my personal and professional life. Keep up the good work!

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: April 30, 2020
Document ID: EPA-HQ-OW-2020-0026-0009

Comment Text:

I worked in hotel water conservation for many years and the Water Sense line of products and the program overall is excellent and by no means should be jettisoned. Businesses look for certified products as a way of guiding them through the morass of options. I have no idea what would compel you to get rid of a program that helps both businesses and residents.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: April 30, 2020
Document ID: EPA-HQ-OW-2020-0026-0010

Comment Text:

I have personally been responsible for the installation of thousands of WaterSense products (toilets, showerheads, faucet aerators, and Pre-Rinse Spray Valves) through a position I held at an organization in Colorado that worked with water providers on water conservation and efficiency. Myself and my employees installed WaterSense products in both residential and commercial buildings. We requested feedback from every customer after installation and use. We received an overwhelming amount of positive feedback on all of these products. If issues arose, which was seldom, we would offer free replacements if the issue could not be fixed by our technician, and we almost never received additional complaints. Furthermore, I personally have installed and used WaterSense toilets, showerheads, and faucet aerators in my own home and love how they function. My family and I have not found them to have any performance difference compared to non-WaterSense products, other than often times performing better.

Please keep and expand the WaterSense program. It is vital to ensuring a sustainable water supply, in addition to helping save people and businesses energy and money.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 1, 2020
Document ID: EPA-HQ-OW-2020-0026-0011

Comment Text:

We have found great value in the watersense program enabling us to make informed choices in the purchase of our home appliances.

Commenter: Sara Cohen
Affiliation: General Public
Comment Date: May 1, 2020
Document ID: EPA-HQ-OW-2020-0026-0012

Comment Text:

I have a WaterSense shower head and enjoy my shower more now than I did with our higher flow device. We also have WaterSense appliances. I really value the certification and knowing that these products work well while saving water and energy. I know that nationwide, the WaterSense program has helped to save trillions of gallons of water and billions of dollars in water and energy costs. Please retain and strengthen this very popular program. - Sara Cohen, Medford, MA

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 1, 2020
Document ID: EPA-HQ-OW-2020-0026-0013

Comment Text:

As a Water Conservation Coordinator located in the driest state of the United States, I do not know how we could educate the customers without having researched- based factual information and real numbers to provide to our customers without the ability and information provided to us at no charge by WaterSense. Without WaterSense, manufactures have no reason to compete and produce better water conservation devices. WaterSense not only provides incentives to producers, but also educate the very young and old with stimulating games, visuals, infographics, videos for youth and adults.

Commenter: Mary Ann Dickinson, President and Chief Executive Officer
Affiliation: Alliance for Water Efficiency
Comment Date: May 4, 2020
Document ID: EPA-HQ-OW-2020-0026-0014

Comment Text:

See attached file(s)

Attachment

See page 33.

May 4, 2020

Mr. David Ross
Assistant Administrator, Office of Water
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Request for 60-Day Extension of the Comment Period Relating to the Request for Information on WaterSense," 85 Fed. Reg. 20,268 (April 10, 2020) - Docket No. [EPA–HQ–OW–2020–0026}

Dear Assistant Administrator Ross:

We are requesting a 60-day extension on the comment period for the above-referenced Request for Information as published in the Federal Register on April 10, 2020.

As a stakeholder-based nonprofit organization dedicated to the efficient and sustainable use of water, the Alliance for Water Efficiency serves as a North American advocate for water-efficient products and programs. Our members include public and private water utilities, water conservation professionals, planners, regulators, and consumers. We have been an integral participant in the WaterSense program since its inception and have worked closely with the EPA, industry and consumer groups to encourage and nurture this extraordinarily successful public-private partnership.

We are vitally interested in contributing to the referenced Request for Information. But we are finding that our members' attention is understandably focused on dealing with the COVID-19 pandemic. As you well know, the pandemic is causing major disruption in the activities of businesses, government agencies and organizations. And because many of our members are organizations which must gain the approval of their directors before taking any policy position, coordinating such approvals is proving extremely difficult given the separation and isolation brought on by the pandemic. The added time we are requesting is needed so that our members can provide us with the detailed and thorough data and information that your request for comments deserves.

Your consideration of our request for an extension is greatly appreciated. Please contact me at maryann@a4we.org with any questions or requests for additional information.

Sincerely yours,

MaryAnn Dickinson

Mary Ann Dickinson
President and CEO

CC: Andrew Wheeler, Administrator
R. Lee Forsgren, Deputy Assistant Administrator, Office of Water
Andrew Sawyers, Director, Office of Wastewater Management

Alliance for Water Efficiency

33 N LaSalle Street
Suite 2275
Chicago, IL 60602

OFFICE (773) 360-5100
TOLL-FREE (866) 730-A4WE
FAX (773) 345-3636

allianceforwaterefficiency.org
home-water-works.org

Commenter: Darcey Peterson, General Manager
Affiliation: King County Water District Number 90
Comment Date: May 4, 2020
Document ID: EPA-HQ-OW-2020-0026-0015

Comment Text:

Hello, My name is Darcey Peterson. I am the General Manager of King County Water District No. 90. I am asking that you please don't relax the requirements for the water sense program. This technology has come a long way from when it was first introduced. There is now no need to flush multiple times to get the bowl clean.

In fact this technology, along with education, plumbing code changes, and water District efforts to eliminate wasted water, has meant that the entire Seattle Region has been able to avoid building additional water shed reservoirs saving rate payers hundreds of millions of dollars. In fact, Seattle uses less total water today than we did in 1960.

Water Sense technology matters. It allows our customers to easily identify which products will help them save water (and money). Please don't decrease the requirements in anyway.

Sincerely, Darcey Peterson.

Commenter: Anonymous
Affiliation: Department of Water and Power, City of Big Bear Lake
Comment Date: May 4, 2020
Document ID: EPA-HQ-OW-2020-0026-0016

Comment Text:

The City of Big Bear Lake, Department of Water and Power, relies on the WaterSense program, including specifications and certifications. Our agency has provided approximately 1,000 toilet rebates in the last five years. Customers ask us which products to purchase, and while we cannot make brand or model specifications, we can recommend the WaterSense certification. The WaterSense program lends credibility and reliability that public agencies count on.

Commenter: Dain M. Hansen
Affiliation: International Association of Plumbing and Mechanical Officials (IAPMO)
Comment Date: May 8, 2020
Document ID: EPA-HQ-OW-2020-0026-0017

Comment Text:

Mr. David Ross
Assistant Administrator, Office of Water
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Request for 60-Day Extension of the Comment Period Relating to the Request for Information on WaterSense," 85 Fed. Reg. 20,268 (April 10, 2020) - Docket No. [EPA-HQ- OW-2020-0026]

Dear Assistant Administrator Ross:

We are requesting a 60-day extension on the comment period for the above-referenced Request for Information as published in the Federal Register on April 10.

The International Association of Plumbing and Mechanical Officials (IAPMO) is a nearly 100- year-old trade association that focuses its comprehensive services on the technical aspects of the plumbing and mechanical industries. We focus where people come in contact with water and sanitation. The IAPMO Group is comprised of 13 different business units with offices and staff in 11 countries. Our membership includes trained labor and contractors, engineers, product manufacturers, suppliers, plumbing and mechanical inspectors, and building officials. As a global leader, IAPMO has assisted with the development of standards, skills training, and conformity assessment services in regions around the world. From the program's creation, IAPMO has been an integral participant in WaterSense, as both a promotional partner and an accredited testing and certification laboratory.

We are very interested in contributing to the referenced Request for Information. But we also recognize the unique challenges faced by IAPMO and other stakeholders in putting together the requisite data required, particularly as the industry is focused on the continual evolution of business operations that the COVID-19 pandemic requires. As you well know, the pandemic is causing major disruption in the activities of businesses, government agencies and organizations. The added time we are requesting is necessary so that IAPMO, its members, and its manufacturer clients can provide EPA with the detailed data and information that your request for comments deserves.

We greatly appreciate your consideration of this request. IAPMO stands ready to continue to work with EPA in the ongoing implementation of the WaterSense program and looks forward to providing a helpful response to EPA's request. If you have questions regarding this request to extend the comment period, please contact Dain Hansen, IAPMO executive vice president for Government Relations, at dain.hansen@iapmo.org or 202-445-7514.

Sincerely yours,
Dain M. Hansen
Executive Vice President
Government Relations

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 12, 2020
Document ID: EPA-HQ-OW-2020-0026-0018

Comment Text:

I am writing to comment on EPA-HQ-OW-2020- 0026. I am a parent of three children and I'm deeply concerned about our future. In addition, I live in California, which is haunted by persistent drought and fires, made worse by climate change. Water efficient products help each of us help each our community as a whole, but we need clear labeling to do that. The current WaterSense program specifications allow me to reduce costs, understand my options quickly, and protect my kids' future. I strongly support the current specifications and do not believe that customer satisfaction criteria should be included in them.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 14, 2020
Document ID: EPA-HQ-OW-2020-0026-0019

Comment Text:

I work for a Florida water utility. The utility issues rebates for Water Sense labeled toilets and irrigation controllers, and provides free faucet aerators and showerheads to its customers. The utility estimates these fixtures reduced customer water use by over 17 million gallons in 2019 alone. A 2015 survey found that 94% of customers that installed WS Labeled toilets were 'Very Satisfied'. These same customers saved 20% more water than if they had installed a standard non-labeled model. A 2020 survey of customers that recently installed a WS labeled irrigation controller found that 92% rated the fixtures "high' or 'very high' quality. The utility's customers with Water Sense labeled irrigation controllers saved 13 million gallons of water in 2019.

The utility uses the label to reap the greatest water savings for funds it invests. Water Sense labeled products are required to meet strict criteria that ensure a quality, well-functioning fixture. The science -based criteria allows customers to choose a superior fixture that will reduce water use. Prior to working with Water Sense, the utility struggled to relay to customers brands & models that save water, work well and qualify for rebates. Successful water reductions allow the utility to accommodate a larger population with lesser or equal water supply. Reducing demand on existing water supplies is less expensive than developing costly alternative water sources, such as desalination. EPA Water Sense is crucial to successfully reducing water consumption.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0020

Comment Text:

Saving water is so very important like making everyone stay in their home because of the corona virus. Why don't you REQUIRE everyone to have water saving devises in their homes and businesses? Once our water is gone, it's gone!

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0021

Comment Text:

Good program, it would be nice if it incorporates moisture content by zone and adjust watering with that in mind. Weather forecasts are not accurate and if I followed their advice for watering, my grass would be gone.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0022

Comment Text:

I like the thought process of this program, as the technology is fantastic. However, the sprinkler control board used does not have any sort of surge protection like my previous Rain Bird controller did. Due to this, I have blown through two controllers due to lightning. This lack of protection also damaged my AC units, as the controller let the surge go through the back door.

I contacted the manufacturer of the controller (Rachio), and they did replace the controllers. However, with the lack of protection, I had to go back to Rain Bird as I have to protect my home.

Commenter: Wayne Hammond
Affiliation: General Public
Comment Date: May 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0023

Comment Text:

Too early to tell. As of now unit is working fine. The education class was informatived.
Wayne Hammond

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0024

Comment Text:

The WaterSense program has a been a wonderful addition to our home. Considering the current weather conditions, the controller makes the adjustments necessary and my lawn has never looked better. My water bill has been great.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0025

Comment Text:

I recently did major renovations to both of my bathrooms in a newly acquired home. I did 90% of the work myself, being retired on a fixed income. This program gave me the ability to purchase and install better and more efficient toilets in my home and at the same time, helping the environment by saving large amounts of water use.

Commenter: Ray Hoffman, CEO
Affiliation: Cascade Water Alliance
Comment Date: May 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0026

Comment Text:

Dear Andrew Wheeler,

Please find the attached letter of support of the US EPA WaterSense program from Cascade Water Alliance in King County, Washington. If you have any questions, please contact me at 425.453.1810 or mbrent@cascadewater.org.

Thank you.

Regards,

Michael Brent

Attachment

See page 47.

May 15, 2020

Mr. Andrew Wheeler, Administrator
US Environmental Protection Agency
Washington, DC

RE: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

Cascade is a municipal corporation in King County, Washington serving more than 380,000 people and 20,000 businesses with safe, reliable drinking water and is comprised of five cities and two water districts.

Cascade's mission is to provide water supply to meet current and future needs of our members in a cost-effective and environmentally responsible manner through partnerships, water efficiency programs, acquiring, constructing and managing water supply infrastructure and fostering regional water planning.

Dear Administrator Wheeler:

Cascade Water Alliance (Cascade) wishes to express its strong support for the WaterSense® Program administered by the US Environmental Protection Agency (EPA) and the continuation of its current methodology for developing product performance specifications.

The WaterSense® Program has been an extremely valuable tool in supporting Cascade's water conservation program. Cascade has promoted and implemented rebate programs for WaterSense® labeled showerheads, faucets, and toilets for years, which has helped save millions of gallons of valuable drinking water and extend our limited water supplies. Cascade's experience has been that customers and retailers are generally very satisfied with products that have received the WaterSense® label. Nationally, the program has saved trillions of gallons of water and has provided customers with confidence in their purchasing choices of plumbing fixtures, and it has had a long and successful history of working with relevant industries and interested parties to craft fair, science-based protocols to evaluate the efficacy of products.

Based on our experience, Cascade recommends that customer satisfaction criteria should not be included in WaterSense® product specifications. The specifications should continue to focus on the measurable, technical performance of plumbing products. The free market, social media, and other sources of evaluation already available provide adequate consideration of product-specific customer satisfaction.

Thank you for maintaining this extremely valuable program that provides tremendous benefit to American consumers.

Warmest regards,

Ray Hoffman, CEO
Cascade Water Alliance

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0027

Comment Text:

it is a good program that saves a lot of water. there should be other programs similar to save our enviroment.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0028

Comment Text:

We installed a water saver controller on our irrigation system through our water company, Citrus County Water Company in Lecanto ,Florida. To date, the controller has done a wonderful job of significantly reducing our water bill and thus our water consumption. In the short time that the controller has been functioning, it has more than paid for itself in water savings.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0029

Comment Text:

The irrigation control system has helped us save on our water use. The weather in that irrigation system app is way more reliable than either my phone weather app or the local TV weather. The system adjusts based on weather and season. I can monitor this from any place I go.

The installer explained how irrigation works and established the program. It was helpful to get this background as we are not native Floridians.

Without this program, we wouldn't have been able to install a new controller and wouldn't have known how to save water.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 16, 2020
Document ID: EPA-HQ-OW-2020-0026-0030

Comment Text:

I cannot comment at this time as I have not had my system long enough to see any change and this is the dry season as well. I also have new sod so I have been watering for 30 days to help it take root. It's only rained here maybe three times at best in the last few of months so there is no real difference for me to speak of.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 16, 2020
Document ID: EPA-HQ-OW-2020-0026-0031

Comment Text:

My household has acquired three WaterSense Program products (shower head, toilet, water controller) from the Citrus County, Florida Water Conservation Office thanks to its incentive program. Without the incentives, I, more than likely, would not have replaced perfectly functioning products already in use. Nevertheless, my wife and I are extremely pleased with their efficiency, water usage and cost reduction, and, most importantly, the value of doing our small part in helping to conserve our most precious natural resource.

Of the three products, the app for the water controller has proven to be an amazing means for regulating our lawn irrigation system. The app makes it easy and convenient to adjust the irrigation schedule with the rainfall received. It also reminds you when the irrigation started and finished, and shows what zone is running and how the time remaining for the zone. Since we travel frequently to Europe, we have checked or regulated the irrigation of our lawn from numerous European locales.

Suffice to say that from our experience the WaterSense Program is an invaluable means for conserving our water, reducing water usage environmental and financial costs, and facilitating return on investment for local utilities by reducing capital costs through demand reduction.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 16, 2020
Document ID: EPA-HQ-OW-2020-0026-0032

Comment Text:

found rain sensor and commodes to be very efficient and has reduced my water bill considerably

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 16, 2020
Document ID: EPA-HQ-OW-2020-0026-0033

Comment Text:

My experience with the water sense irrigation controller has been very positive. The unit performs very well is reliable and auto adjusts to the seasonal requirements. It requires very little attention.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 17, 2020
Document ID: EPA-HQ-OW-2020-0026-0034

Comment Text:

bought two Kholer toilets and rain sensor. very happy with both

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 17, 2020
Document ID: EPA-HQ-OW-2020-0026-0035

Comment Text:

I am writing to comment on EPA-HQ-OW-2020-0026. As a consumer, I am concerned about a sustainable future, reducing household costs, and clear labeling. The current WaterSense program specifications support all of these goals. I strongly support the current specifications and do not believe that customer satisfaction criteria should be included in them.

Commenter: Valerie Meyer Nixon
Affiliation: General Public
Comment Date: May 17, 2020
Document ID: EPA-HQ-OW-2020-0026-0036

Comment Text:

I am writing to comment on EPA-HQ-OW-2020-0026. As a parent and grandparent I am grateful for labeling on appliances that make it easy to understand the water efficiency of my purchase. I would prefer to not complicate that message with customer satisfaction information that might confuse the buyer and can easily be found in other places. I strongly support the current specifications and do not believe customer satisfaction information needs to be added. Thank you, Valerie Meyer Nixon

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 17, 2020
Document ID: EPA-HQ-OW-2020-0026-0037

Comment Text:

I am writing to comment on EPA-HQ-OW-2020-0026. As an educator, I am concerned about a sustainable and health future for me students. I strongly support the current specifications of the WaterSense program and do not believe that customer satisfaction criteria should be included in them.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 17, 2020
Document ID: EPA-HQ-OW-2020-0026-0038

Comment Text:

I am writing to comment on EPA-HQ-OW-2020-0026. I strongly support the EPA's recommendation to keep the current specifications. Adding customer satisfaction criteria will make them more confusing and less effective. The current WaterSense specifications support the goals of a sustainable future, reducing household costs, and clear labeling.

Please keep the current specifications.

Commenter: Amy Sholinbeck
Affiliation: General Public
Comment Date: May 17, 2020
Document ID: EPA-HQ-OW-2020-0026-0039

Comment Text:

I am writing to comment on EPA-HQ-OW-2020-0026.] I am concerned about a sustainable future, reducing household costs, and clear labeling. The current WaterSense program specifications. I support all of these goals. I strongly support the current specifications and do not believe that customer satisfaction criteria should be included in them.

People could find reviews on their own.

Thanks,

Amy Sholinbeck

California Voter

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 17, 2020
Document ID: EPA-HQ-OW-2020-0026-0040

Comment Text:

I am writing to comment on EPA-HQ-OW-2020-0026. The current WaterSense program works. It does not need to be modified to include customer satisfaction criteria. I strongly support the current specifications.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 17, 2020
Document ID: EPA-HQ-OW-2020-0026-0041

Comment Text:

I'm writing to comment on EPA-HQ-OW-2020-0026. I feel that the current Water Sense program specifications do a good job of supporting consumer concerns for sustainability, cost reduction and clear labeling. I support the specifications as they are and do not want to see the additional inclusion of consumer satisfaction criteria.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 17, 2020
Document ID: EPA-HQ-OW-2020-0026-0042

Comment Text:

I am writing to comment on EPA-HQ-OW-2020-0026. As a parent, partner and educator, I support all of these goals. I strongly support the current specifications and do not believe that customer satisfaction criteria should be included in them. I am concerned about a sustainable future, reducing household costs, and clear labeling. This is not the forum where individual comments in regards to the products with the regulation label on them should be aired. Perhaps a separate site could be designated for that purpose.

Thank you for taking my comments here and I hope you will take them into consideration.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 17, 2020
Document ID: EPA-HQ-OW-2020-0026-0043

Comment Text:

I am writing in support of the current specifications of this proposed regulation without the need to include customer satisfaction criteria.

Commenter: Kerry Stackpole, Chief Executive Officer (CEO) and Executive Director
Affiliation: Plumbing Manufacturers International (PMI)
Comment Date: April 29, 2020
Document ID: EPA-HQ-OW-2020-0026-0044

Comment Text:

Request to EPA Assistant Administrator David Ross, Office of Water from Plumbing Manufacturers International for 60-Day Extension of Comment Period Relating to the Request for Information on the WaterSense Program - 85 Fed. Reg. 20,268 (April 10, 2020) - Docket No. [EPA-HQ-OW-2020-0026]

Attachment

See page 66.

April 29, 2020

David Ross
Assistant Administrator
Office of Water
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: Request for 60-Day Extension of Comment Period Relating to the Request for Information on WaterSense," 85 Fed. Reg. 20,268 (April 10, 2020) - Docket No. [EPA–HQ–OW–2020–0026

Dear Assistant Administrator Ross:

On April 10, 2020, the U.S. Environmental Protection Agency (EPA) published a notice in the *Federal Register* stating that it was seeking information on the agency's WaterSense Program [*See* 85 Fed. Reg. 20,268]. Comments are currently due June 9, 2020.

Since our plumbing manufacturers, suppliers and customers are completely focused on coping with unprecedented magnitude brought on by the COVID-19 pandemic, Plumbing Manufacturers International (PMI) requests a 60-day extension of the comment period to allow stakeholders the opportunity to fully develop thoughtful feedback on this Request for Information (RFI). This global pandemic is causing a major disruption to the economic activity in the plumbing and construction sectors, including the operations of their workplaces.

PMI is the nation's leading trade association for the plumbing fixtures and fittings manufacturing industry and has supported the WaterSense program since its inception in 2006. Producing 90 percent of the United States' plumbing products and representing more than 150 brands, PMI's members are industry leaders in manufacturing innovative, reliable and water-efficient plumbing products and related supplies. The WaterSense program has created a water-efficiency benchmark for plumbing products that has allowed our members to confidently invest millions of dollars in product development and marketing initiatives while knowing that there will be a market for these products. The program has grown to having more than 30,000 water-efficient plumbing and irrigation products carrying the WaterSense label.

We appreciate your consideration of this comment extension request. Please do not hesitate to contact me or Stephanie Salmon in the PMI Washington Office at ssalmondc@gmail.com or 571-242-0186, if you have any questions or need additional information.

Sincerely,

Kerry Stackpole, FASAE CAE
CEO/Executive Director
Plumbing Manufacturers International
kstackpole@safeplumbing.org

cc: EPA Administrator Andrew Wheeler
R. Lee Forsgren, Deputy Assistant Administrator, Office of Water
Andrew Sawyers, Director, Office of Wastewater Management

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 18, 2020
Document ID: EPA-HQ-OW-2020-0026-0045

Comment Text:

Watering day restrictions should be removed to allow the WaterSense devices to optimize water usage. Limiting to specific days will use more water than necessary and damage to landscape.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 19, 2020
Document ID: EPA-HQ-OW-2020-0026-0046

Comment Text:

As a consumer, I am extremely satisfied with the WaterSense program. I hold WaterSense in such high regard because it uses product testing and data analysis to decipher which water-using devices are both efficient and effective. This information is essential for consumers who want to improve the water efficiency of their home or business but don't want to lose performance. I have personally purchased many WaterSense approved fixtures for my home and have found them to be of excellent quality. In my professional life, we rely on WaterSense certification to provide guidance on water fixture purchases to the residents of our community. Without this essential program, there would be no way for laypeople to select water-using fixtures with confidence.

Commenter: Shelley Flock, Conservation and Customer Service Field Manager, and Ron Duncan, General Manager
Affiliation: Soquel Creek Water District
Comment Date: May 19, 2020
Document ID: EPA-HQ-OW-2020-0026-0047

Comment Text:

See attached file(s)

Attachment

See page 70.

SOQUEL CREEK WATER DISTRICT

Mail: P.O. Box 1550 • Capitola, CA 95010 • Office: 5180 Soquel Drive, Soquel, CA 95073

Tel.831.475.8500 • Fax.831.475.4291 • www.soquelcreekwater.org

May 19, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington DC

Subject: Docket ID No. EPA–HQ–OW–2020– 0026

Dear Administrator Wheeler,

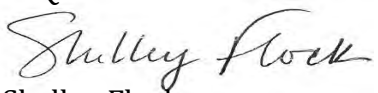
Soquel Creek Water District (SqCWD) is a public utility on the central California coast in Santa Cruz County, a region which relies 100% on local water sources and has experienced water supply shortage and seawater intrusion into local groundwater sources. As such, water conservation is a crucial component of our strategy to reduce water demand to ensure a reliable and consistent water source for all customers and reduce the strain on public infrastructure and shared natural resources.

Currently, SqCWD offers rebates for 18 different water conservation devices or measures to residential and commercial customers. Rebates are very valuable in helping our customers reduce water use and supporting our mission of providing a safe, high quality, reliable, and sustainable water supply to meet our community's present and future needs in an environmentally and economically responsible manner. SqCWD uses WaterSense to inform the specifications for the toilet, showerhead and urinal rebates and encourages customers to use WaterSense to aid in their purchase decision. By using WaterSense, the District assures customers that the products they are installing are not only water efficient but have been assessed for performance by a third party. The District has largely had very positive feedback on the performance of rebated WaterSense products, especially residential toilets.

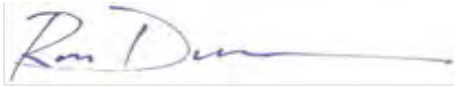
Soquel Creek Water District supports the continued use of the WaterSense label and the reassessment and improvement of the standards over time to encourage further water conservation.

Sincerely,

SOQUEL CREEK WATER DISTRICT



Shelley Flock
Conservation and Customer Service Field Manager



Ron Duncan
General Manager

Commenter: Jennifer Burke, Director of Water
Affiliation: City of Santa Rosa
Comment Date: May 20, 2020
Document ID: EPA-HQ-OW-2020-0026-0048

Comment Text:

See attached file(s)

Attachment

See pages 72 through 74.

May 20, 2020

Mr. Andrew Wheeler
Administrator, U.S. EPA
Washington, DC

Re: Comments on Docket ID No. EPA-HQ-OW-2020-0026: Request for Information on the WaterSense Program

Dear Administrator Wheeler,

On behalf of the City of Santa Rosa Water Department (Santa Rosa Water), I am writing to provide comments in response to the *Notice of Recent Specifications Review and Request for Information on WaterSense Program* published in the Federal Register on April 10, 2020. Santa Rosa Water appreciates the U.S. EPA's ongoing review of the WaterSense Program and allowing partners to weigh in on the most appropriate way to assess consumer satisfaction with WaterSense products. Santa Rosa Water is a member of the Alliance for Water Efficiency and the Sonoma-Marin Saving Water Partnership and is supportive of the comments provided in their respective letters.

Santa Rosa Water is an urban retail water supplier serving approximately 175,000 residents in Sonoma County, California. Santa Rosa Water has a long-standing commitment to water use efficiency and provides our customers with an array of individualized tools and resources to help them use water wisely. By providing invaluable outreach materials, templates for marketing, and rebate program support, the WaterSense Program has been an important part of our water use efficiency "toolkit". Santa Rosa Water also participates in WaterSense's annual Fix-a-Leak campaign, which enjoys considerable engagement from our community.

Our comments contained in this letter directly address the specific questions posed within the Federal Register notice and our support of the U.S. EPA's decision not to revise any WaterSense Product specifications at this time.

I. Customer satisfaction should be limited to helping the U.S. EPA make improvements to the WaterSense program, and not used in product specifications and guidelines.

In this federal rulemaking, the U.S. EPA is seeking input on whether it should include consumer satisfaction criteria in the WaterSense Program's product specifications and guidelines, and, if included, what criteria should be considered. While there are reasonable uses for customer satisfaction to inform the future direction of the WaterSense Program, Santa Rosa Water does not recommend including this criteria in the WaterSense product specifications and guidelines. Rather, customer satisfaction research should be used to help the U.S. EPA improve upon the WaterSense Program and brand.

Including customer satisfaction requirements within individual product specifications provides little benefit to the U.S. EPA in improving programmatic elements of the WaterSense Program. Customer

satisfaction with a plumbing fixture depends greatly on the quality of manufacturing, the cost, the customer's own expectations, the actual installation of the fixture, the water pressure in the building, and the appearance of the fixture. These are all difficult to measure and subject to issues that are beyond the control of the U.S. EPA. Individual product satisfaction research is more appropriate for the marketplace and product manufacturers to strategically develop their products and brand for competitive advantage.

Instead, Santa Rosa Water recommends specifically tailoring surveys around consumer satisfaction with utility partnerships, brand recognition, and WaterSense products. This would provide the U.S. EPA with valuable insight and general direction for product categories, opinions of the WaterSense brand, their experience with WaterSense products, and inform the U.S. EPA on the successes or failures of the program.

II. The U.S. EPA should rely on professional, independent researchers to conduct consumer satisfaction research.

The U.S. EPA should rely on the services of professional, independent researchers, who specialize in customer satisfaction survey methods and plumbing fixtures, to design and conduct research on consumers' satisfaction with WaterSense. Measuring consumer satisfaction is a complex task, requiring statistical analysis and research, which is not the type of research that the U.S. EPA itself should conduct.

Santa Rosa Water recommends that the scope of consumer satisfaction research should be limited to the WaterSense brand itself and partnerships, instead of the products themselves. This is similar to the type of research currently conducted by the EnergyStar Program. Gaining insight on consumer satisfaction of the WaterSense brand and partnerships could be much more useful to the U.S. EPA in evaluating awareness and satisfaction of the WaterSense Program. Whereas collecting product specific customer satisfaction is more suited for product manufacturers and distributors who use such information to develop new products and modify existing ones. Further, trying to understand customer satisfaction of a particular product becomes challenging when there are varying factors related to brand, style and manufacturing of the fixture, installation of the fixture, and local water pressure.

Therefore, Santa Rosa Water recommends that that U.S. EPA consult with professional researchers in order to gather meaningful data that will help build upon the existing WaterSense brand and improve consumer experience with WaterSense products on a nationwide level.

III. The EPA should continually review WaterSense product performance criteria and revise as necessary.

Santa Rosa Water supports the U.S. EPA's decision not to revise any product specifications at this time, however, we do recommend that the U.S. EPA continue to periodically review WaterSense product performance criteria pursuant to the America's Water Infrastructure Act (AWIA) of 2018. Periodic review of product performance and specifications will allow the U.S. EPA to ensure product specifications continually advance with changing times and technology.

Thank you for the opportunity to provide input on the WaterSense Program. We greatly appreciate your support in ensuring that this tremendously successful program continues to provide water providers and consumers the assurance that performance or quality is not sacrificed when choosing a WaterSense certified product. If you have any questions, please feel free to contact Claire Nordlie, Sustainability Coordinator, at 707-543-3962 or CNordlie@srcity.org.

Sincerely,

Jennifer Burke

Jennifer Burke
Director of Water, City of Santa Rosa

Commenter: Thomas A. Love, General Manager
Affiliation: Upper San Gabriel Valley Municipal Water District
Comment Date: May 22, 2020
Document ID: EPA-HQ-OW-2020-0026-0049

Comment Text:

See attached file(s)

Attachment

See page 76.

May 20, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

RE: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

Dear Mr. Wheeler:

The Upper San Gabriel Valley Municipal Water District (Upper District) joins numerous other agencies, businesses, and members of the public in offering full support for the WaterSense program at the Environmental Protection Agency (EPA) and its current product specifications.

These comments are filed in response to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published on April 10, 2020 in the Federal Register as Docket ID: EPA-HQ-OW-2020-0026.

WaterSense has consistently sought to base its product specifications on unbiased measured values of performance which are tested in a laboratory setting and certified by a third-party certifying organization. Rigorous testing of products bearing the WaterSense label assure consumers that products perform as specified. Devices bearing a WaterSense label offers consumers much-needed, and appreciated, guidance in selecting water efficient products.

WaterSense products have become a vital tool in the efforts to save water throughout the United States. Maintaining current WaterSense product specification levels are crucial for protecting the sustainability of our nation's water resources.

Upper District believes that customer satisfaction criteria should not be included as part of WaterSense product specifications. Incorporating customer satisfaction criteria into WaterSense specifications would introduce uncertainty and bias into an otherwise fair and scientific process.

The WaterSense program has been an enormous success for the EPA and immensely helpful to consumers. Water agencies across the nation have been able to implement highly successful water conservation programs involving consumer selection, and use of, WaterSense-labeled products. These programs have resulted in tremendous water and energy savings.

The Upper District values and appreciates the EPA's continued efforts to support and ensure the continuity of this essential and effective program.

Sincerely,

Thomas A. Love, P.E.
General Manager

602 E. Huntington Drive, Suite B | Monrovia, CA 91016 | (626) 443-2297 (phone) | (626) 443-0617 (fax) | www.upperdistrict.org

Commenter: Carol Boyd
Affiliation: General Public
Comment Date: May 22, 2020
Document ID: EPA-HQ-OW-2020-0026-0050

Comment Text:

Very satisfied with my low flush toilet. Especially as the water rates keep creeping up. If something could be done about people with broken sprinkler heads; people who have wells and water when they feel like it and not on allowed days and times.

Thank You Carol Boyd

Commenter: Grant Davis, General Manager
Affiliation: Sonoma County Water Agency
Comment Date: June 1, 2020
Document ID: EPA-HQ-OW-2020-0026-0052

Comment Text:

See attached file(s)

Attachment

See pages 79 and 80.

Sonoma Water

CF/0-0-1 Letter of Support (ID 5524)

June 1, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

RE: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

Dear Administrator Wheeler:

The Sonoma County Water Agency (Sonoma Water) writes to express our strong support for the WaterSense program at the Environmental Protection Agency (EPA) and to share with you our submitted comments regarding WaterSense. We are filing these comments in response to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published on April 10, 2020 in the Federal Register. Our comments address the recent EPA review of the WaterSense program, the EPA's decision not to revise any of the WaterSense product specifications, and the specific questions asked within the Federal Register Notice related to consumer satisfaction.

The WaterSense program is a trusted partner that we rely on to help us meet regional water supply needs through investments in demand-management programs that incentivize and promote the use of WaterSense products by our customers. The science-based rigor of the WaterSense product specifications provides the underpinning and confidence to make these investments, with the knowledge that our and our customers' expectations for water savings will be realized. Although end user satisfaction with WaterSense labeled products may vary for a wide variety of reasons, it is of utmost importance that consumer satisfaction criteria remain separate from product specifications, and that WaterSense uphold the current regime for specifications based on measured values of performance that are tested in a laboratory and certified by a third-party certifying organization. Including a vague, non-scientific concept such as customer satisfaction criteria could introduce uncertainty and bias into what is currently a fair and scientific process for setting WaterSense specifications.

Although reasonable uses for consumer satisfaction information can exist within WaterSense, the scope of customer satisfaction research should be limited to consideration of the WaterSense brand itself and WaterSense partnerships, like the type of customer satisfaction research ENERGY STAR has conducted in the past. Proper uses of customer satisfaction survey results would inform the EPA about Americans' opinion of the WaterSense brand and their experience with WaterSense labeled products in homes and businesses. This information could help EPA guide the direction of the

WaterSense brand and program. However, any product-specific customer satisfaction research is best left to the marketplace and manufacturers themselves. Product manufacturers conduct customer satisfaction research frequently and keep the results to themselves so they can use it strategically to develop their products and brand to competitive advantage.

This is not to say that WaterSense specifications should not move forward and advance in the future. They should be reviewed regularly so that WaterSense products keep up with changing technology and industry innovation, as has been the case with WaterSense products to date. By doing so, WaterSense can continue to fuel innovation in American manufacturing while providing consistent and fair metrics for product development in the plumbing and irrigation industries.

The WaterSense program has been a tremendous success for EPA, and has been a successful partner with Sonoma Water for many years. We strongly encourage EPA to maintain the program's effectiveness so we can continue to rely on regional water supply investments that tailor water conservation programs around consumer use of WaterSense-labeled products.

Sincerely,

Grant Davis
General Manager

rw S:\Clerical\Pinks\06-01-20\SW-Letter-to-EPA-Admin-Wheeler-regarding-Federal-Register-NOI-final.docx

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 29, 2020
Document ID: EPA-HQ-OW-2020-0026-0053

Comment Text:

I am a Registered professional mechanical engineer and strongly recommend and specify the water sense products constantly due to the huge savings provided by these.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 29, 2020
Document ID: EPA-HQ-OW-2020-0026-0054

Comment Text:

The WaterSense program has been helpful to identifying products with a minimum level of performance while providing reduced water consumption. This is similar to the benefits of the Energy Star program experienced by the market which helps drive innovation by designers and manufacturers to continue to improve performance while being good stewards of resources over the life of products.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: May 29, 2020
Document ID: EPA-HQ-OW-2020-0026-0055

Comment Text:

WaterSense is a voluntary labeling program that has saved more than 3.4 trillion gallons of water since its inception in 2006. That's more than the amount of water used by all U.S. households for 4 months! The program has also saved more than $84.2 billion in water and energy bills in that same timeframe. Without WaterSense, 462.5 billion kWh of electricity would not have been saved. That's a year's worth of power to more than 44.4 million American homes. (Statistics are as of 2018, according to EPA). With an annual budget of only $2 million, WaterSense has an incredible return on investment for taxpayers.

Specifically regarding the WaterSense labeled products, an analysis of the 1999 and 2016 Residential End Uses of Water Studies showed that toilets, showerheads and faucets have become more efficient, but contrary to President Trump's December 2019 comments, the use of these fixtures has not changed. If homeowners were unhappy with the performance of their more efficient fixtures, that would lead them to use them more... and that's just not happening.

As an architect I only specify WaterSense products. We have scientific data and long standing evidence of the damage that will be caused by allowing such an action to occur. One of the key roles of government is to preserve public safety. Willfully ignoring clear evidence of an impending catastrophe is a dereliction of duty. Scientists have worked for decades to assemble an incontrovertible body of evidence related to our changing climate, and ignoring that information is insidious. Future generations' resources, health and prosperity is dependent on us acting immediately, significantly and broadly. I encourage the WaterSense program remain, or better yet, become law!

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: June 1, 2020
Document ID: EPA-HQ-OW-2020-0026-0056

Comment Text:

I think that the WaterSense Program is an incredible assett to consumers. As a sustainability manager for a city, I am often asked about water and energy saving product recommendations. I am able to point people to Energy Star and WaterSense as fact-based programs that make product-specific energy and water consumption information more transparent. Having WaterSense as a filter criteria for those searching for products online also helps people easily focus their searches to products they know will save them money and save one of our most important resources. Please ensure that the program continues to be funded and promoted in a way that keeps up with changing technologies.

My experience with WaterSense products is that they perform well for their intended purpose. Although they may not provide the same experience as less efficient products, they are effective and in some cases better. Toilets in particular have made major strides in the past several years. The criticisms of multiple flushes is pretty much ancient history. And new shower technology provides a great shower experience with much lower levels of water use.

We live in a desert and water efficiency is critical. Without things like the WaterSense label, it will be a lot harder for consumers to figure out what products to buy. It is imperative that more sustainable choices be as easy as possible and clear labels are one way to do this.

Commenter: Anonymous
Affiliation: C+C, Inc.
Comment Date: June 1, 2020
Document ID: EPA-HQ-OW-2020-0026-0057

Comment Text:

My company, C+C, Inc. is filing this comment to address the recent EPA review of the WaterSense program, the EPA's decision not to revise any of the WaterSense product specifications, and the specific questions asked within the Federal Register Notice.

C+C is a communications firm, specializing in behavior change campaigns for social good. We have supported the WaterSense program for the last 14 years. WaterSense is a scrappy, but extremely effective public-private voluntary partnership program that has helped change behaviors nationwide. The program has helped save trillions of gallons of our world's most precious resource and billions of kilowatt hours of energy that are not used to heat, pump and distribute water to homes, businesses and institutions around the country. And in doing so the program has helped inspire manufacturers of water using products to continue to innovate, making high performance bathroom and kitchen fixtures, as well as products that save water outdoors. Products that are not only certified to perform 20% better than their less efficient counterparts, but also happen to use a lot less water.

These products have such high customer satisfaction that today, if you shop at The Home Depot, 100% of the toilets, faucets and showerheads on their shelves are WaterSense labeled. The largest fixture manufacturers, such as Kohler and American Standard, have helped their customers save billions of gallons and have a large suite of WaterSense labeled products, with new models introduced every year. Manufacturers have toured the country time and time again with displays touting the high performance of their WaterSense labeled products.

KB Home, one of the country's largest home builders, has built more homes certified under the WaterSense label than any other national builder. To date, KB Home has built more than 15,000 WaterSense labeled and Water Smart homes and installed over 600,000 WaterSense labeled fixtures. KB Home estimates that its homes conserve approximately 1.5 billion gallons of water annually.

Public and private utilities in all 50 states tailor successful water conservation programs around consumer use of WaterSense-labeled products.

Drought conditions continue to plague areas of the United States and North America. Water-efficient fixtures and faucets and homes can help ease the burden. EPA WaterSense efforts have also resulted in a significant financial benefit to consumers on an average of $380 annually and $84.2 billion total in water, sewer, and energy bills since 2006.

Thank you for doing your utmost to ensure this very inexpensive, valuable, and effective program continues to deliver for the American people.

Water is life and it must be protected.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: June 3, 2020
Document ID: EPA-HQ-OW-2020-0026-0058

Comment Text:

I support the WaterSense program. As a researcher in the water conservation field, I have seen the huge amount of water savings a city can achieve that come from indoor fixture rebate programs in which inefficient toilets, showerheads, etc are replaced with watersense-labeled products. On a personal level, I find it convenient to be able to find products that I know are tested and qualified to save water and work most efficiently by searching specifically for watersense-labeled fixtures.

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: June 3, 2020
Document ID: EPA-HQ-OW-2020-0026-0059

Comment Text:

The specifications for the EPA's WaterSense program should not be changed. The specifications serve as an excellent tool for achieving water conservation (while architects, builders, developers, etc. can opt for more stringent conservation targets of their own volition). EPA should continue to encourage the development and widespread adoption of the water rating index created by RESNET and its partner organizations to help make people aware of water conservation options plus the value of WaterSense-labeled products. Thank you for this opportunity to comment.

Commenter: Rebecca Geisen, Managing Director
Affiliation: Regional Water Providers Consortium
Comment Date: June 3, 2020
Document ID: EPA-HQ-OW-2020-0026-0060

Comment Text:

Please see attached comments in regards to WaterSense Program and specifications review.

Rebecca Geisen
Managing Director, Regional Water Providers Consortium

Attachment

See page 89.

Beaverton, City of
Clackamas River Water
Cornelius, City of
Forest Grove, City of
Gladstone, City of
Gresham, City of
Hillsboro, City of
Lake Oswego, City of
Milwaukie, City of
Newberg, City of
Oak Lodge Water Services
Portland, City of
Raleigh Water District
Rockwood Water PUD
Sandy, City of
Sherwood, City of
South Fork Water Board
Sunrise Water Authority
Tigard, City of
Troutdale, City of
Tualatin, City of
Tualatin Valley Water District
West Slope Water District

June 3, 2020

Mr. Andrew Wheeler, Administrator
US Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on WaterSense Program

Dear Administrator Wheeler:

The Regional Water Providers Consortium is writing to express its strong support for the WaterSense program and to share our comments with you in response to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published on April 10, 2020 in the Federal Register. Our comments are summarized below:

1. The Consortium fully supports the WaterSense program and considers it a critical tool for the effective management of our valuable water resources.
2. Many of our 23 regional water providers utilize WaterSense products as a key element of their successful water conservation programs because they are rigorously tested by a third party, provide a national standard for efficiency, are widely adopted and available, and result in cost savings in both water and energy for customers.
3. The proposal to use customer satisfaction information as a companion to WaterSense performance metrics is potentially concerning and should only be applied if collected in a manner that matches the technical rigor of the WaterSense program. Customer satisfaction should be limited to consideration of the WaterSense brand and WaterSense partnerships, and not specific products.
4. Given the potential limitations and uncertainties associated with the collection, interpretation and application of customer satisfaction information, we do not support direct incorporation of customer satisfaction criteria into WaterSense product specifications themselves.

The Regional Water Providers Consortium is a collaborative and coordinating organization that works to improve the planning and management of municipal water supplies in the greater Portland, Oregon metropolitan region. The Consortium was established in 1997 and works with its 23 members in water conservation, emergency preparedness and regional coordination.

Thank you for the opportunity to comment.

Sincerely,

Mark Fagin, Chair
Regional Water Providers Consortium Board

1120 SW 5th Avenue, Suite 600
Portland, OR 97204
503-823-7528
www.regionalh2o.org
RegionalWaterProvidersConsortium
ConserveH2Org

Commenter: Kristen Johnson, Government Affairs Specialist
Affiliation: Coachella Valley Water District
Comment Date: June 4, 2020
Document ID: EPA-HQ-OW-2020-0026-0061

Comment Text:

See attached file(s).

Attachment

See pages 91 and 92.

COACHELLA VALLEY WATER DISTRICT
Established in 1918 as a public agency

GENERAL MANAGER
Jim Barrett

CLERK OF THE BOARD
Sylvia Bermudez

ASSISTANT GENERAL MANAGER
Robert Cheng

ASSISTANT GENERAL MANAGER
Dan Charlton

June 4, 2020

The Honorable Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
submitted via: www.regulations.gov

Re: WaterSense Program, Docket ID No. EPA-HQ-OW-2020-0026

Dear Administrator Wheeler:

Coachella Valley Water District (CVWD) respectfully submits the following comments and support for the WasterSense program at U.S. Environmental Protection Agency (EPA). These comments are in response to the April 10, 2020 Federal Register Notice of Recent Specifications Review and Request for Information on the WaterSense Program.

1. **Customer satisfaction criteria should not be incorporated into WaterSense product specifications.**

CVWD echoes the position of The Alliance of Water Efficiency (AWE) that customer satisfaction criteria do not belong in WaterSense product specifications. However, there are reasonable uses for customer satisfaction information within the WaterSense program. Results from customer satisfaction surveys should inform the EPA about the public's opinions of the WaterSense brand and experiences with WaterSense labeled products in their homes and businesses.

Since the program's launch in 2006, WaterSense has sought to base its product specifications on laboratory tested measured values of performance. By adhering to these measured performance standards, the manufacturers who produce WaterSense products have had a level playing field in which specifications are uniformly understood. A vague, non-scientific measure such as customer satisfaction is likely to introduce uncertainty and bias into this stable and fair process. CVWD believes product-specific satisfactions research is best left to the marketplace and to the manufacturers themselves.

2. **Customer satisfaction research for WaterSense should be limited to the WaterSense brand and to WaterSense partnerships.**

The scope of customer satisfaction research should be limited to consideration of the WaterSense brand itself and WaterSense partnerships, like the type of customer satisfaction research ENERGY STAR has conducted in the past. Proper uses of customer satisfaction survey results would inform the EPA about Americans' opinion of the WaterSense brand and their experience with WaterSense labeled products in homes and businesses. This information could help EPA guide the direction of the WaterSense brand and program.

3. **WaterSense specifications and products should be reviewed and revised, as appropriate, at regular intervals to adapt to changing technology.**

The April 10 Federal Register notice it states that EPA has made the decision not to revise any WaterSense specifications at this time. CVWD supports the AWE position that it is important for specifications to move forward and advance in the future. EPA's decision not to revise any specifications is acceptable today, but must be reviewed regularly so that WaterSense products keep up with changing times and technology.

CVWD relies heavily on the WaterSense to label products that promote water efficiency in a uniform and controlled program. CVWD recommends WaterSense labeled products in its water conservation rebate program. In the arid Coachella Valley, preserving the source groundwater is critical. CVWD was excited to announce it had added high-efficiency washing machines and hot water recirculation pumps to its indoor rebate program. In just the first five months of offering these two new rebates, CVWD has processed 41 recirculating pump rebates and 49 washing machine rebates. These programs work. CVWD is thankful for the clear standards embedded in the program, which means staff do not need to spend time researching, reviewing and recommending products.

In closing, CVWD appreciates the opportunity to provide these brief comments. CVWD has also signed a longer coalition letter authored by AWE. If you have any questions, please reach out to me at kjohnson@cvwd.org or (760) 398-2661 ext. 3564.

Sincerely,

Kristen Johnson, J.D.
Government Affairs Specialist

cc: The Honorable Raul Ruiz (CA-36)

Commenter: Brad Coffey, Manager Water Resource Management
Affiliation: Metropolitan Water District of Southern California
Comment Date: June 8, 2020
Document ID: EPA-HQ-OW-2020-0026-0062

Comment Text:

See attached file(s).

Attachment

See pages 94 through 96.

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

June 8, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

Dear Administrator Wheeler:

Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

The Metropolitan Water District of Southern California (Metropolitan) wishes to express its strong support for the WaterSense program at the Environmental Protection Agency (EPA) and to share with you our submitted comments regarding WaterSense. We are filing these comments in response to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published on April 10, 2020, in the Federal Register. Our comments address the recent EPA review of the WaterSense program, the EPA's decision not to revise any of the WaterSense product specifications, and the specific questions asked within the Federal Register Notice.

Our comments are as follows:

1. Regarding The American Water Infrastructure Act (AWIA) of 2018 and Review Specifications:
    a. Metropolitan believes that EPA's WaterSense review process is fundamentally sound, and that WaterSense reviewed the scope, efficiency, and performance criteria within each specification under consideration for revision adequately.
    b. WaterSense adequately accessed and considered the most recent technical and scientific studies, product trends, and specifications (regulatory and other), and WaterSense correctly sought and considered feedback in the process of making its determination.
    c. Metropolitan supports the determination that no updates to the existing certifications are necessary at this time.
2. Regarding the Request for Information on Consumer Satisfaction:
    a. In Section IV(a), the Notice referenced a 1999 report on a consumer satisfaction survey prepared for Metropolitan, suggesting that the main reason for "double flushing" of higher efficiency toilets was the desire for bowl cleanliness, and that

"Increasing the gram requirement may unduly impact product choice, consumer satisfaction and offset any savings in water usage." Metropolitan believes that this statement mischaracterizes the survey and draws incorrect inferences from the actual survey questions.

i. The survey questions sought to learn about *performance* of the sampled toilet models in clearing and cleaning the bowl; no questions sought a ranking of causes for double flushing. In summary, double flushing of the newer toilets for clearing and cleaning were "Once a month" or "Never" for approximately 2/3 of the responses. Other questions specifically regarding double-flushing were in the context of frequency of double flushing the new toilets relative to the older (replaced) toilets. Survey findings suggested that consumers required double flushing the *same or less* 68 percent of the time compared to their older toilets. The report did not discuss gram requirements for sampled toilets, and therefore no inferences should be made as to that metric's effect on customer satisfaction.

ii. The 1999 survey results notwithstanding, using data from more than 20 years ago is irrelevant for today. Manufacturers have vastly improved on the designs and performance of newer high-efficiency toilets, to the extent that many models have been thoroughly and rigorously 3rd-party tested, and likely out-perform older high-volume flushing toilets still in use.

b. Regarding seeking customer satisfaction criteria for WaterSense specifications, Metropolitan feels that these criteria do NOT belong in any WaterSense product specifications themselves.

i. Including a vague, non-scientific concept such as customer satisfaction criteria could introduce uncertainty and bias into what has until now been a fair and scientific process for setting WaterSense specifications.

ii. Product-specific customer satisfaction research is best left to the marketplace and manufacturers themselves.

iii. A Residential End Use Study (*DeOreo, W.B., P. Mayer, J. Kiefer, and B. Dziegielewski. 2016. Residential End Uses of Water, Version 2. Water Research Foundation. Denver, CO.*) showed that over the period between 1999 and 2016 (as toilets, showerheads, and faucets became more efficient), customer's use of these fixtures has not changed nor has flushing frequency increased, suggesting that consumers were likely equally satisfied with their fixtures in 2016 as they were in 1999.

c. There are reasonable uses for customer satisfaction information within WaterSense: the scope of customer satisfaction research should be limited to consideration of the WaterSense brand itself and WaterSense partnerships, like the type of customer satisfaction research ENERGY STAR has conducted in the past. Proper uses of customer satisfaction survey results would inform the EPA about Americans' opinion of the WaterSense brand and their experience with WaterSense labeled products in homes and businesses. This information could help EPA guide the direction of the WaterSense brand and program.

The WaterSense program has been a tremendous success for EPA. Public and private utilities in all 50 states tailor successful water conservation programs around consumer use of WaterSense-labeled products. And because of the nexus between water and energy use, the 3.4 trillion of gallons of water saved by WaterSense since 2006 have resulted in 462.5 billion kilowatt hours of energy that are not used to heat, pump and distribute water. These savings have resulted in a financial benefit to consumers on an average of $380 annually and $84.2 billion total in water, sewer, and energy bills since 2006.

Thank you for doing your utmost to ensure this inexpensive, valuable, and effective program that continues to deliver for the American people.

Sincerely,

Brad Coffey

Brad Coffey
Manager, Water Resource Management

GVT:vsm

Commenter: Richard F. Harasick, Senior Assistant General Manager, Water Systems
Affiliation: Los Angeles Department of Water and Power (LADWP)
Comment Date: June 4, 2020
Document ID: EPA-HQ-OW-2020-0026-0063

Comment Text:

See attached file(s).

Attachment

See pages 98 through 102.

June 4, 2020

Ms. Stephanie Tanner
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, District of Columbia, 20460

Dear Ms. Tanner:

Subject: Comments on the Environmental Protection Agency Review and Request for Information on WaterSense Program

Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to comment on the Environmental Protection Agency (EPA) Review and Request for Information on WaterSense Program. It is LADWP's understanding that this review considers the revision of the WaterSense product performance specifications released prior to 2012 and that there is also a request for information on any data or surveys for customer satisfaction.

LADWP supports the WaterSense program and acknowledges that while the EPA review has decided not to revise any specifications, there are still efforts that can be done to encourage efficient and sustainable water supply. LADWP supports maintaining the current standards as well as adopting more stringent standards as have been adopted by the State of California, the City of Los Angeles or as rebated by the LADWP. To that end, LADWP is submitting the following comments:

I. Lower WaterSense Maximum Efficiency Specifications

While the current WaterSense specifications have proven to be effective, with more than 3.4 trillion gallons of water and $84.2 billion in bills saved since 2018, additional improvement can still be achieved for the coming years. The following are suggested considerations for increased efficiencies of current WaterSense devices:

Tank-Type Toilets: Currently, the federal standard for tank-type toilets is 1.6 GPF and the WaterSense specification sets a maximum efficiency of 1.28 GPF. LADWP rebated toilets are at a flush rate less than or equal to 1.1 GPF and a minimum MaP score of 600. This program is in line with MWD's SoCal Water $mart rebate program for high

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efficiency toilets. Additionally, the California Plumbing Code has adopted a maximum flush rate requirement for toilets of 1.28 GPF that applies to new construction or when new toilets are installed to replace existing toilets. Based on the findings of residential end-use studies conducted by respected consulting firms such as WaterDM, higher efficiency toilets do not lead to an increased frequency in toilet flushing. Since 1999, the use of these fixtures has not changed despite the decrease in flushing volume. LADWP supports the following specifications based on California's efforts to reduce excessive water use.

Based on this information, LADWP recommends EPA's WaterSense program consider a higher efficiency standard for tank-type toilets.

Lavatory Faucets and Faucet Accessories: The WaterSense specification sets a maximum efficiency of 1.5 GPM. LADWP offers free bathroom faucet aerators at 1.0 and 0.5 GPM. Additionally, the California Plumbing Code has adopted a maximum residential lavatory faucet flow rate of 1.2 GPM that applies to new construction or when new faucets are installed to replace existing faucets.

Based on this information, LADWP recommends EPA's WaterSense program consider a higher efficiency standard for faucets.

Showerheads: The WaterSense specification sets a maximum efficiency of 2.0 GPM. LADWP offers free showerheads at 1.5 GPM. There have been minimal complaints from LADWP customers who are currently using these showerheads. There have also been no reports from customers of thermal shock scalding with these showerheads. Additionally, the California Plumbing Code has adopted a maximum showerhead flow rate of 1.8 GPM that applies to new construction or when new showerheads are installed to replace existing showerheads.

Based on this information, LADWP recommends EPA's WaterSense program consider a higher efficiency standard for showerheads.

Flushing Urinals: The federal standard for flushing urinals is 1.0 GPF and the WaterSense specification sets a maximum efficiency of 0.5 GPF. LADWP rebates urinals with a flush rate of 0.125 GPF. Additionally, the California Plumbing Code has adopted a maximum flush rate requirement for urinals of 0.125 GPF that applies to new construction or when new urinals are installed to replace existing urinals.

Based on this information, LADWP recommends EPA's WaterSense program consider a higher efficiency standard for urinals.

II. Adjustments to Weather-Based Irrigation Controller Guidelines

With 90 percent of the population waiting to upgrade to Weather Based Irrigation Controllers (WBIC) as mentioned in EPA's review, it would be advisable to have clearer guidelines as to what WBICs should be considered to be WaterSense-approved.

For future guidelines, LADWP suggests that WBICs be mandated to have better programming/sensors in calculating the amount of rain and soil moisture content and be able to water accordingly. This should be applicable to all of the stations it serves such that even if a consumer cannot set the controller correctly or manually sets the controller without utilizing the weather capabilities, there will still be maximum water savings.

LADWP also suggests that WBICs have connectivity to smart devices as well as having a stand-alone screen controller. This will allow for easier customer use as most do not have the patience to learn controlling methods.

III. Criteria for Customer Satisfaction Surveys

Although customer satisfaction criteria are not necessary for the WaterSense specifications and guidelines, it is useful for informing them. Thus, it would be more prudent for the EPA to wait until studies on water fixtures and customer satisfaction are completed before concluding at this time that there should be no changes to the WaterSense program.

LADWP suggests that the customer satisfaction surveys should include questions for customers that use more efficient products, such as 0.125 GPF urinals or 1.8 GPM showerheads, and use those results as evidence for current opinions on these items. Some other criteria that could be considered include how long the consumer has used the product, their overall satisfaction with the product, and whether or not the consumer plans to keep the device or change it.

Lastly, establishing a reference point for customer satisfaction should be done in order to confirm its own influence on standards-setting as well as easily confirm effective satisfaction.

IV. Incorporation of New Devices for the WaterSense Program

LADWP recommends adding the following new devices to the WaterSense program that hold potential for more water savings:

Landscape Irrigation Rotating Nozzles: One device for consideration in the future is rotating sprinkler nozzles as these are also one of LADWP's most popular rebated items. From LADWP's Water Conservation Potential study, 83 percent of single-family residences have non-conserving irrigation fixtures, showing that there is a large conservation potential from these devices. Rebates through MWD's SoCal Water $mart program are currently being offered when 30 or more rotating nozzles are purchased. WaterSense should consider these for future listing when standards for these devices are adopted.

Leak-Detection Devices: Another device that WaterSense should consider listing is smart leak-detection devices as household leaks cause a significant amount of water loss. From the WaterSense website, the average household can lose up to 180 gallons per week from household leaks alone. Adding these to the WaterSense program would create a great potential for water savings. Properties of a qualifying leak-detection device should include a user-friendly interface to view consumption data, the ability to monitor 24 hours a day, an alert system for consumers of a sudden change in water use or flow, and the option to automatically set the device to collect data in various minute intervals.

V. Changes to WaterSense Labels

Lastly, LADWP recommends changing the medium of the label itself. In regards to tank-type toilets, WaterSense should consider putting mandatory stamp/etched labeling on both the tank and bowl for designating flow rates. Currently, WaterSense uses paper stickers to label appliances, but in the case of tank-type toilets, these are not durable since after repeated usage, the label comes off. A more permanent medium such as an etching or stamp would be useful for verification, retrofitting, and building safety.

LADWP continues to support the WaterSense program. Its products have been a success in assisting water conservation programs all over the country. Overall, while EPA recommends no revisions to the current specifications, the WaterSense program can still be improved for future water efficiency goals. More efficient specifications,

detailed WBIC guidelines, scrutinized customer satisfaction surveys, and additional changes to the WaterSense label can help move toward such a direction. WaterSense products should continue to be reviewed regularly to keep up with future changes.

Thank you for your consideration of our comments. Should you have any questions, please contact Sofia Marcus, Manager of Water Resources Regulation, Legislation, and Grants, at (213) 367-0925.

Sincerely,

Richard F. Harasick
Senior Assistant General Manager – Water System

MO:cyr
c: David R. Pettijohn
Sofia Marcus
Nancy Sutley
David Jacot

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: June 6, 2020
Document ID: EPA-HQ-OW-2020-0026-0064

Comment Text:

I am writing to comment on EPA-HQ-OW-2020-0026. I am a teacher. Every year I worry more and more for the future of my students. I am concerned about a sustainable future, reducing household costs, and clear labeling. The current WaterSense program specifications support all of these goals. I strongly support the current specifications and do not believe that customer satisfaction criteria should be included in them.

Commenter: G. Tracy Mehan, III, Executive Director of Government Affairs
Affiliation: American Water Works Association (AWWA)
Comment Date: June 8, 2020
Document ID: EPA-HQ-OW-2020-0026-0065

Comment Text:

Please see comments from the American Water Works Association (AWWA) in the attached file.

Attachment

See pages 105 through 109.

American Water Works Association
Dedicated to the World's Most Important Resource™

Government Affairs Office
1300 Eye Street NW
Suite 701W
Washington, DC 20005-3314
T 202.628.8303
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June 8, 2020

Stephanie Tanner
Office of Water
Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20460

Re: Comments on EPA's "*Notice of Recent Specifications Review and Request for Information on WaterSense Program* (EPA-HQ-OW-2020-0026)"

Dear Ms. Tanner:

The American Water Works Association (AWWA) appreciates the opportunity to comment on EPA's "*Notice of Recent Specifications Review and Request for Information on WaterSense Program*" We hope that these comments will assist EPA in planning its next steps for the WaterSense program.

AWWA and water sector support WaterSense

AWWA has long supported the WaterSense program. As a voluntary program rooted in providing consumers with efficient and high performing product choices while giving utilities and local governments the tools and resources necessary to support effective conservation programs, WaterSense is both valuable and cost effective for every stakeholder involved. To this effect, we encourage EPA to assure the continued availability of this valuable program as it continues to review the underlying standards as necessary while dedicating all other resources necessary to meet these objectives.

Periodic reviews of standards are appropriate

AWWA fully supports EPA conducting this review (and additional reviews when appropriate) to help review whether the standards continue to meet their objectives.

In addition to verifying that the standards are working as intended, periodic reviews provide the opportunity to identify other concerns that may arise from the use of high efficiency products.

For example, on 85 FR 20270, the notice addresses potential water quality challenges with the use of highly efficient products and the actions undertaken in collaboration with stakeholders to explore this concern. AWWA appreciates that EPA has acknowledged the impact of WaterSense product use on water quality in building potable water and hot water systems, as well as, building piping and systems for hot water, cold water, and wastewater. EPA's stated interest in working with stakeholders will be essential to overcoming this challenge. WaterSense products are not the only cause of increasing water residence time in building systems but WaterSense is well-suited to inform integration of water efficient products into existing and new buildings. With this role in mind, the WaterSense program should:

1. Include in all new WaterSense specifications and future reviews of existing specifications an assessment of water quality impacts associated with the specification. Where appropriate, the specifications should be expanded to address proper installation and use to minimize water quality impacts relevant to public health, aesthetics, and function of the building water and wastewater systems[1].
2. Integrate effective communication into WaterSense program and promotional materials about steps to minimize water quality and building infrastructure considerations when increasing water efficiency in buildings[2].
3. Promote improved water-efficient product labeling, installation, and user instructions highlighting relevant materials and plumbing construction considerations to reduce water quality impacts and impacts on plumbing (e.g., release of lead and copper into drinking water, and corrosion of wastewater piping).
4. Coordinate with the EPA Office of Groundwater and Drinking Water, EPA Office of Pollution Prevention and Toxics, and the Centers for Disease Control and Prevention on educational materials related to building water quality (e.g., heavy metal and opportunistic pathogens).

[1] Examples include the WaterSense specifications for labeled new homes for a building systems approach, shower heads for potential water quality concerns, and flush urinals for wastewater system issues.
[2] This could be added to the WaterSense "Our Water" page and into information about commercial buildings.

5. Engage in EPA's triennial research planning process to identify, prioritize, and fund research on the effects of water efficiency on water quality (e.g., Safe and Sustainable Water Resources Strategic Research Action Plan, Research Area 7).

No known performance problems or customer satisfaction issues of WaterSense labeled products

AWWA is not aware of any recent significant performance problems with WaterSense labeled products related to the standards. Many utilities and service providers are highly engaged in working with customers and have not reported any significant issues. Additionally, there are thousands of models of WaterSense labeled products with millions of units produced, and these products have passed third party testing procedures and there are no widespread reports of performance challenges, it is unlikely that there would be any major or systematic problems with the standards themselves. The combination of the marketplace and existing testing procedures will address concerns with individual products, without the need for revisions to the standards.

Although satisfaction with WaterSense products is often not tracked directly, many conservation programs have much of their basis in promoting WaterSense labeled products, and such programs tend to be well received. Because of this popularity, especially when combined with information from manufacturers and retailers showing that the products sell well, consumers generally appear satisfied with WaterSense labeled products. EPA could further verify this by assuring there are easy ways for consumers to provide feedback to the WaterSense program should concerns arise.

Customer satisfaction could be assessed, but outside of the standards process

EPA could work with its partners and stakeholders to assess customer satisfaction with the WaterSense brand and labeled products generally. This could serve as a basis for additional outreach on the brand and strategies to help encourage greater adaptation of WaterSense labeled products.

However, EPA should not include customer satisfaction as part of the standards themselves. The WaterSense standards are based upon specific, testable measures of performance and efficiency. Products that meet these requirements and are verified through third-party testing are eligible for labeling. This does not mean that every WaterSense labeled product is a luxury product. In fact, labeled products can span the whole range from basic products with full functionality but no extras up through luxury products that have many additional features and are made of upgraded materials. The basic functions of these products may be the same, but customer satisfaction may vary considerably.

Additionally, consumer satisfaction is inherently subjective. It is important that WaterSense retain vendor and product-neutral stance by continuing to develop and update standard which are stakeholder informed, backed by data, and have characteristics that can be directly tested. For these reasons, there's no appropriate way to incorporate satisfaction into a standard itself, but rather satisfaction could be part of a marketing and brand awareness and promotion campaign.

Utility experiences with WaterSense

AWWA gathered input from nine utility users of WaterSense materials and specifications. Key findings of this outreach included:

- About 90% of respondents appreciated that EPA is retaining the current standards. 10% were neutral, noting there's an opportunity for future strengthening of the standards but understanding the current levels are also useful.
- Most respondents (60-80%, depending on product type) felt they had overall positive experiences with all five WaterSense product categories under review. The remainder (20-40% noted that they did not have personal experience with some product types or had a neutral opinion for some reason). *No respondents had negative opinions of any of the WaterSense product categories.*
- All respondents (except for one that considered this question "not applicable" stating that they had not assessed satisfaction) have overall found that their end-use customers are satisfied with WaterSense labeled products. Responding utilities generally have not directly assessed satisfaction, but note that their rebate programs are popular and they have not received any significant number of complaints about WaterSense labeled products. Some

respondents noted that in follow-up conversations with those assisted through conservation programs were often interested in additional projects (for example, if an apartment complex would work on a project, they would often sign up other properties after a successful deployment).

We sincerely hope that this information will assist EPA in continuing to move the successful WaterSense program forward. We appreciate the opportunity to provide comment on this matter. Please feel free to contact me or Adam Carpenter at AWWA (202-628-8303, acarpenter@awwa.org) if you have any questions regarding these comments.

Respectfully,

G. Tracy Mehan, III
Executive Director of Government Affairs
American Water Works Association

CC: Jennifer McLain, OW/OGWDW
Andrew Sawyers, OW/OWM
Eric Burneson, OW/OGWDW
Veronica Blette, OW/OWM
Brian Albert, OW/OGWDW
Suzanne Van Drunick, ORD

About AWWA:
AWWA is an international, nonprofit, scientific and educational society dedicated to providing total water solutions assuring the effective management of water. Founded in 1881, the Association is the largest organization of water supply professionals in the world. Our membership includes nearly 4,400 utilities that supply roughly 80 percent of the nation's drinking water and treat almost half of the nation's wastewater. Our over 50,000 total memberships represent the full spectrum of the water community: public water and wastewater systems, environmental advocates, scientists, academicians, and others who hold a genuine interest in water, our most important resource. AWWA unites the diverse water community to advance public health, safety, the economy, and the environment.

Commenter: E. Joaquin Esquivel, Chair
Affiliation: State Water Resources Control Board
Comment Date: June 11, 2020
Document ID: EPA-HQ-OW-2020-0026-0066

Comment Text:

See attached file(s).

Attachment

See pages 111 through 113.

State Water Resources Control Board

Friday June 5, 2020

United States Environmental Protection Agency
Office of Public Engagement
1200 Pennsylvania Avenue NW
Washington, DC 20460 United States

SUBJECT: Docket ID No. EPA–HQ–OW–2020–0026.
Notice of Recent Specifications Review and Request for Information on WaterSense Program

Dear Administrator Wheeler,

The California State Water Resources Control Board (State Water Board) appreciates the opportunity to comment on the United States Environmental Protection Agency's (U.S. EPA) request for information on the WaterSense Program, as described in Docket ID No. EPA–HQ–OW–2020–0026.

The mission of the California State Water Board is to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations. Water efficiency generally, and the WaterSense program specifically, play an important role in fulfilling our mission.

The State Water Board is glad the U.S. EPA recently announced it will "maintain WaterSense program specifications." If U.S. EPA were to revise existing WaterSense specifications, the State Water Board encourages U.S. EPA to consider the stricter standards developed in California and other states, which, alongside the WaterSense specifications, are advancing the State Water Board's mission to protect water quality, sustain water resources, and keep water affordable.

However, the State Water Board was somewhat surprised by the scope of the April 10 Request for Information (RFI). In the Request, U.S. EPA states it is "seeking input… to help assess consumer satisfaction with WaterSense labeled products…" While U.S.

EPA may desire to understand consumer satisfaction and confidence through the RFI, it will be poor substitute for the significant resources that are spent in development, testing and application for a WaterSense label. In fact, it seems worth highlighting that customer satisfaction and confidence are core to the meaning of a WaterSense label.

When the first water-conserving products entered the marketplace in the 1990s, customers were in fact dissatisfied. Showers were piddly and toilets had to be double flushed. In 2006, over a decade after these poorly-performing products became available, the U.S. EPA established the WaterSense program and label. The label exists to signal to customers that, unlike those early model products, WaterSense-labeled products not only save water, but perform as well as or better than regular models. To bear the WaterSense label, products must meet rigorous specification requirements, which are developed via a robust public process and supported by a diverse group of stakeholders, including manufacturers, who, interested in maintaining customer loyalty, are particularly motivated to ensure products meet customer expectations. In other words, the specification development process inherently "incorporates customer satisfaction considerations." If customers were dissatisfied, in California or elsewhere, sales of WaterSense products—and the number of WaterSense-labeled products—would not be increasing year and after year. Earning the WaterSense label takes time and money, which manufacturers would not invest in if it weren't worth it.

As an agency committed to protecting water quality, sustaining water resources, and keeping water rates affordable, the State Water Board commends the WaterSense program's excellent work, the rigor of the specification development process, and the performance of products baring the WaterSense label.

Below, we discuss some of the ways water efficiency is important to California.

Water efficiency protects water quality. As much as 50 percent of water used for irrigation outdoors is lost or wasted due to evaporation, wind, or runoff caused by inefficient irrigation methods and systems. In many areas of California, such dry-weather runoff from wasteful outdoor water use impairs water bodies and is regulated as an "illicit discharge" per National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System permits. Over-irrigating landscapes conveys bacteria, sediment, pesticides, and nutrients into water bodies, compromising human health and ecosystems. Weather-based irrigation controllers help to reduce dry-weather runoff by applying water only when plants need it. The WaterSense specification for weather-based irrigation controllers has helped to transform the market for these devices, giving California customers the confidence to buy controllers that perform, save water, and reduce pollution.

Water efficiency ensures water resources for present and future generations. With the increased frequency and severity of droughts, California's water supplies have become more vulnerable. The impacts of the 2012-2016 drought were serious and widespread, prompting major legislative and regulatory changes. To adapt, California is making water efficiency a way of life, which means doing more with less water. For several decades, we have been on the right track. Since 1967, water use has increased only **20 percent** while California's population has doubled and the economic output has increased fivefold. The increased efficiency and performance of water-saving fixtures, such as WaterSense toilets, faucets and showerheads, have helped California communities grow and prosper while saving water. Indoor water use rates continue to decline in California, reflecting consumer confidence in and satisfaction with water efficient products. On the precipice of what may be another major drought, we're counting on WaterSense to help Californians stay on track.

Water efficiency keeps water affordable for customers and utilities. Water supply vulnerability, aging infrastructure, and a growing population are impacting the costs customers pay for water. Efficient plumbing standards and long-term conservation programs lower costs for customers by helping to delay or even avoid the need to develop new supplies and treatment capacity. The cheapest "new" water source is often the more efficient use of what's already been developed. In Los Angeles, efficiency measures have translated to a 26.7 percent reduction in water supply costs and customer water bills. Water efficiency has benefited communities across California and across the Country. According to the 2018 annual accomplishments report, WaterSense has helped Americans save $84.2 billion in water and energy bills. Central to the success of conservation programs are the availability and reliability of water efficient products. When Californians look for the WaterSense label, they know they will find a product that performs, saves water and saves money.

Thank you for considering the State Water Resources Control Board's comments. Please do not hesitate to reach out with any questions, and we look forward to further discussion on the multiple values of the WaterSense program for the State of California.

Sincerely,

E. Joaquin Esquivel

Chair, State Water Resources Control Board

Commenter: David Epley
Affiliation: General Public
Comment Date: June 15, 2020
Document ID: EPA-HQ-OW-2020-0026-0067

Comment Text:

I have found Water Sense to be very helpful as a consumer when purchasing fixtures for my home. It has helped me distinguish between a variety of products. With Water Sense I can trust it has been tested and will deliver the water savings but also a good performance. If looking to make changes, it would be nice to have a tiered Water Sense structure that allowed for me to choose between a range of water efficient fixtures.

Thank you, David Epley

Commenter: Peter Mayer, Principal
Affiliation: WaterDM
Comment Date: June 16, 2020
Document ID: EPA-HQ-OW-2020-0026-0068

Comment Text:

Attached please find comments from Peter Mayer, P.E., Principal of WaterDM regarding EPA-HQ-OW-2020-0026-0001

Attachment

See pages 116 through 121.

June 16, 2020

Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

Stephanie Tanner and Veronica Blette
Office of Water
Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20460

Dear Ms. Tanner and M. Blette:

WaterSense is one of the most cost-effective government programs ever and I am writing to express my strong support for the WaterSense program at the Environmental Protection Agency (EPA). I have supported the WaterSense program since it was founded and I urge you to continue and expand this remarkable program.

As a voluntary program rooted in providing consumers with efficient and high performing product choices while giving utilities and local governments the tools and resources necessary to support effective conservation programs, WaterSense is both valuable and cost-effective for every stakeholder involved. EPA should assure the continued availability of this valuable program as it continues to review the underlying specifications as necessary while dedicating all other resources necessary to meet these objectives.

My comments focus on four specific areas of the Request for Information (ROI:

1. **EPA should not include customer satisfaction criteria in the WaterSense product specifications and guidelines.**

   Customer satisfaction criteria do not belong in WaterSense product specifications themselves, but there are reasonable uses for customer satisfaction information within WaterSense. Since its inception in 2006, WaterSense has sought to base its product specifications on measured values of performance that are tested and certified in a lab. A fundamental adherence to measured performance has provided a level playing field for manufacturers who produce WaterSense products since 2006. The playing field is level because the measured requirement of each specification is understood by product manufacturers.

Including a vague, non-scientific concept such as customer satisfaction criteria could introduce uncertainty and bias into what has until now been a fair and scientific process for set WaterSense specifications. Product-specific customer satisfaction research is best left to the marketplace and manufacturers themselves. Product manufacturers conduct customer satisfaction research frequently and keep the results to themselves so they can use it strategically to develop their products and brand to competitive advantage.

2. Fixture performance has improved since the advent of WaterSense.

In 2003, three years before WaterSense was created, all toilets sold in the US were required to comply with ASME Standard A112.19.2-203 which required testing with media comprised of plastic "granules", nylon balls, sponges and kraft paper. Also in 2003 engineers John Koeller and Bill Gauley created Maximum Performance Testing (MaP Testing) and began bench-testing toilets using far more realistic test media comprised of dense bean paste. MaP also began publishing testi results on a regular basis so that water utilities could provide rebates to their customers for toilets that were proven to perform well using realistic tests. Manufacturers voluntarily submitted their toilets for MaP Testing so that they could be part of large rebate programs in California, Texas, Georgia, and elsewhere. Due to this success, MaP Testing also expanded to include showerheads.

By June 2006 when the WaterSense program was created there were about 500 tank-type toilet models submitted for MaP Testing and these toilets could remove an average of 420 grams each (**Error! Reference source not found.**). As the WaterSense toilet specification for tank-type toilets was developed many parties recommended that MaP Testing (or similar testing using realistic test media) and ultimately the WaterSense tank-toilet minimum performance specification was set at 350 grams of waste removal using the MaP approach.

The WaterSense tank-toilet specification was released in 2007 and since that time the number of tested fixture models has gone from 500 to 3,390 and the average flushing performance has improved from 500 grams of waste removed in a single flush to 897 grams. The impact of MaP Testing in improving toilet performance has been so significant that it was incorporated the American ASME A112.19.2 and Canadian CSA B45.1-13 standards in 2013. Figure 1 shows the progression of fixtures tested and the improvement in average flushing performance since the advent of MaP Testing and WaterSense.

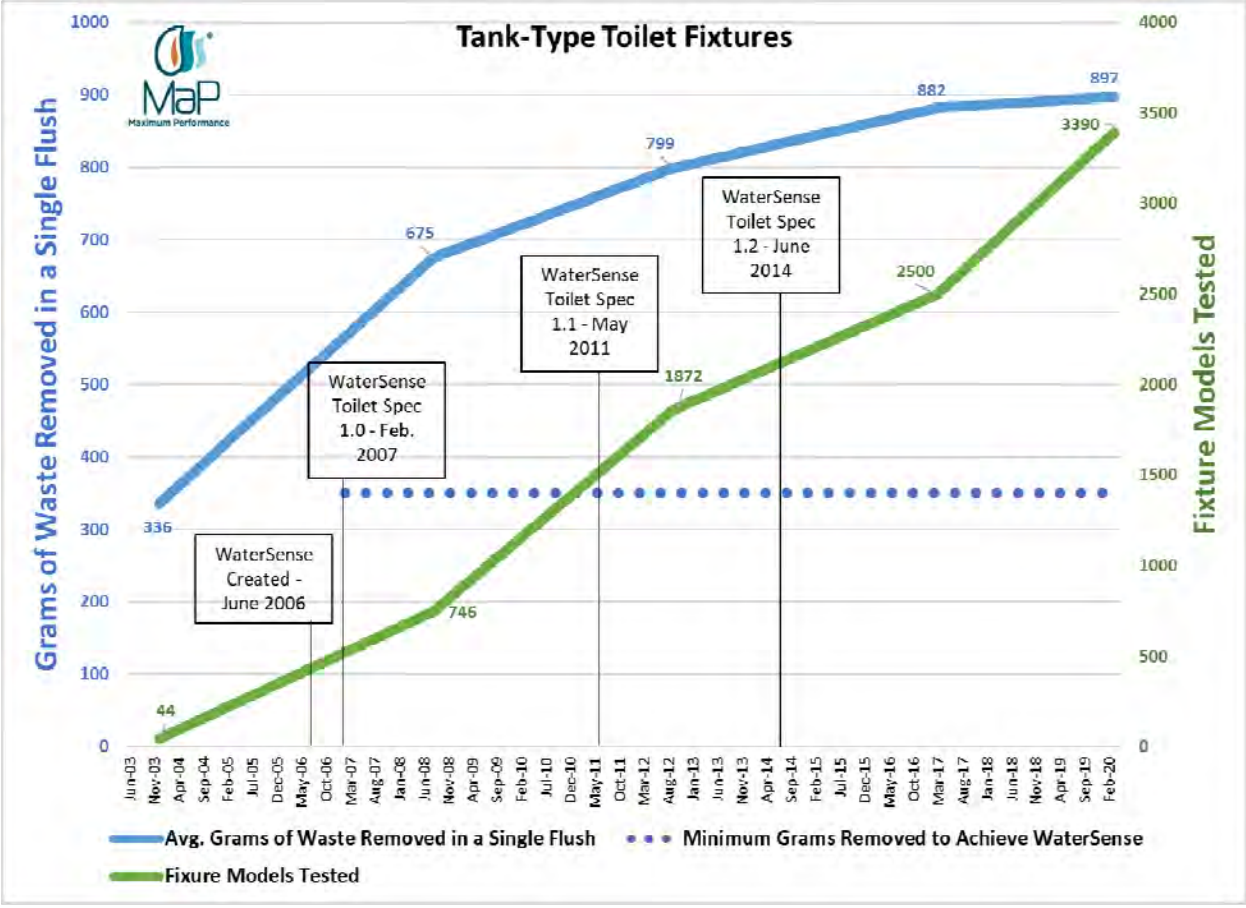

Figure 1: Fixture models tested and average grams of waste removed by tank-type toilets, 2003 – 2020 (Source: MaP Testing)

American consumers have expressed a high level of satisfaction with WaterSense labeled products that have been tested through this process through their actions in the marketplace since the program was introduced. Customers of the Home Depot were so satisfied with WaterSense products that the company chose to sell WaterSense labeled products exclusively in all of their stores. At competitor Loew's, the overwhelming majority of eligible product offered for sale carry the WaterSense label. If there were a problem with customer satisfaction, these retail giants would know it and would offer something different. Home Depot and Loew's both understand that the performance standards included in WaterSense product specifications create customer satisfaction because the products that carry the WaterSense label perform better than the competition which is not subject to rigorous performance testing.

WaterSense has operated on a shoestring budget for less than 15 years and has become remarkably popular. WaterSense-certified tank-type toilets have a 16.8% market penetration. WaterSense-certified bathroom sink faucets have a 40.1% market penetration,

and WaterSense-certified showerheads have a 45.4% market penetration.[1] WaterSense manufacturer partners have produced nearly 3,900 WaterSense labeled tank-type toilets, 9,300 models of WaterSense labeled showerhead, and 18,000 WaterSense labeled lavatory faucet and accessory models[2]. American consumers have voiced their satisfaction with their purchases. Industry agrees and more than 1,700 manufacturers, retailers and distributors, water and energy utilities, state and local government, non-profit and trade organizations, irrigation training organizations, and home builders strengthen their businesses through partnerships with WaterSense.

Based on this success, the popularity of WaterSense is expected to grow. Research from Plumbing Manufacturer's International fond that within the next 15 years, most bathroom sink faucets and showerheads installed in the United States will be WaterSense-certified or meet the WaterSense program. Within the next 30 years, most residential tank-type toilets will be WaterSense-certified or meet the WaterSense program. Within the next 40 years, most flushometer-valve toilets and flushing urinals will be WaterSense-certified or meet the WaterSense program.[3]

If customers were satisfied with their fixtures in 1999 they appeared to be equally satisfied with their fixtures in 2016 and use them in pretty much the same way, even after the advent of WaterSense and as the fixtures themselves have become more efficient. While not addressing customer satisfaction or WaterSense products directly, the 1999 and 2016 Residential End Uses of Water Studies[4] measured how people use water at home in their daily lives. The studies reveal how frequently people use toilets and faucets and clothes washers and to what extent those behaviors have changed over time. This information can be a strong indicator of customer satisfaction. These paired residential end use studies offer the best available measurements of key metrics such as the frequency of toilet flushing, the duration of shower and faucet usage, and the flow rate of these fixtures. This information provides valuable insight about water use patterns and indicate if people are using fixtures the same or more frequently as the flow rates and flush volumes of the fixtures have changed.

The results for toilet flushing, showering, and faucet use show that over 15 years, fixtures themselves have become more efficient, but the use of these fixtures has not changed. The average volume of water used to flush a toilet has decreased, but the average number of

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[1] U.S. WaterSense Market Penetration. A GMP Research Industry Report commissioned by Plumbing Manufacturers International. https://www.safeplumbing.org/files/safeplumbing.org/documents/misc/7-1-19-WaterSense-2019-Report.pdf

[2] Federal Register. April 10, 2020. EPA-HQ-OW-2020-0026 – Request for Information on the WaterSense Program. Vol. 85, No. 70.

[3] IBID

[4] DeOreo, W.B., P. Mayer, J. Kiefer, and B. Dziegielewski. 2016. Residential End Uses of Water, Version 2. Water Research Foundation. Denver, CO.
Mayer, P., W. DeOreo, J. Kiefer, E. Opitz, B. Dziegielewski, and J.O. Nelson. 1999. Residential End Uses of Water. Water Research Foundation, Denver, CO.

flushes per person per day has stayed the same. The average number of minutes spent in the shower has stayed the same. The average faucet use per person per day has stayed the same. Subsequent analysis on shower patterns using the same Residential End Uses of Water data sets found "on average, people do not compensate for lower flow rates by increasing the duration of their shower and that lower flow rate showerheads do, on average, result in a lower overall shower volume".[5]

3. The Federal Register ROI contains problematic statements regarding product standards.

Under section "V. Request for Information on Consumer Satisfaction" of the April 10 Federal Register Notice it states the following (emphasis added):

> "Understanding consumer satisfaction is important to the EPA as the Agency seeks to ensure that our performance criteria review is in **fact ensuring that labeled products are meeting the same standards as products on the market before the WaterSense label was adopted.**"

This statement is problematic for several reasons. First, the statement incorrectly implies that products which achieve the WaterSense label are meeting different standards than products which do not receive the label. In fact, all plumbing products and fixtures must meet the same set of basic reference manufacturing standards established by the American Society of Mechanical Engineers (ASME). While there is overlap, products that receive the WaterSense label must be separately certified to meet the distinct WaterSense specifications. Appendix A shows the current standards that all tank-type toilets must meet in 2020 along with a history of these specifications since 2003.

Second, the statement wrongly implies that customer satisfaction for plumbing fixtures was higher "back in the old days" before 2006 when the WaterSense label was adopted and that products met a different standard back then. The tremendous success and popularity of WaterSense labeled products is due in large part because WaterSense specifications include measurable performance requirements that result in products that work better for consumers. WaterSense labeled products meet a higher standard than non-labeled products but this statement implies they should somehow meet the same standard.

Achieving the WaterSense label requires that products be tested to a higher standard and the Federal Register statement wrongly implies that these don't meet the same minimum basic standards as other fixtures. The confusion evident in this statement in the Federal Register should be corrected.

4. It is important the WaterSense specifications move forward and not remain static.

[5] Gauley, B. and J. Koeller. 2017. How Showerhead Flow Rates Impact Shower Duration and Volume. Prepared for the Alliance for Water Efficiency. www.map-testing.com

The April 10 Federal Register Notice also included a summary of the review of WateSense product performance criteria conducted as required under the authorizing legislation under the America's Water Infrastructure Act (AWIA) of 2018. Based on this review, the EPA made the decision not to revise any specifications.

I strongly believe it is important that specifications move forward and advance over time. This decision is acceptable today in 2020 but must be reviewed regularly so that WaterSense products keep up with changing times and technology.

The WaterSense program has been a tremendous success for EPA. Public and private utilities in all 50 states tailor successful water conservation programs around consumer use of WaterSense-labeled products. And because of the nexus between water and energy use, the 3.4 trillion of gallons of water saved by WaterSense since 2006 have resulted in 462.5 billion kilowatt hours of energy that are not used to heat, pump and distribute water. These savings have resulted in a financial benefit to consumers on an average of $380 annually and $84.2 billion total in water, sewer, and energy bills since 2006.

Thank you for doing your utmost to ensure this inexpensive, valuable, and effective program that continues to deliver for the American people.

Sincerely,

Peter Mayer, P.E.
Principal
WaterDM

1339 Hawthorn Ave.
Boulder, CO 80304
www.waterdm.com

Commenter: Jennifer L. Perry, Director, Water Planning and Management Division
Affiliation: Connecticut Department of Energy and Environmental Protection
Comment Date: June 19, 2020
Document ID: EPA-HQ-OW-2020-0026-0069

Comment Text:

See attached file(s).

Attachment

See pages 123 and 124.

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Via Electronic Submission
To the Federal eRulemaking Portal
www.regulations.gov

U.S. Environmental Protection Agency
Docket ID Number: EPA-HW-OW-2020-0026

Re: Comments on Review of WaterSense Program specifications

Dear Docket Administrator:

The Connecticut Department of Energy and Environmental Protection (CT DEEP) welcomes the opportunity to comment on the United States Environmental Protection Agency's (EPA) decision to maintain the WaterSense program specifications after a review in December 2019, as directed by the *America's Water Infrastructure Act (AWIA) of 2018*. After completing the review, the EPA has decided not to revise the WaterSense specifications.

The CT DEEP supports and promotes the foundational goals of utilizing water-efficient infrastructure and practices in buildings and households across the state and providing education in water conservation. To further these goals, the CT DEEP became a promotional partner of WaterSense in March of 2020. We support the current standards set by the WaterSense program, as well as any opportunity to update the WaterSense standards as more efficient technology becomes available. The CT DEEP urges EPA to continue to collect information and revise efficiency and test methods as appropriate.

Connecticut adopted the state's first State Water Plan on June 5, 2019 to provide a framework for water management and conservation, now and into the future, to ensure that in-stream and out-of-stream water needs are met across the state. The fundamental goals and principles of the WaterSense program align with Connecticut's goals to use water more efficiently to ensure there is a balance among users across the state. The WaterSense program will be a resource to the state of Connecticut with completing goals outlined in our State Water Plan.

The CT DEEP understands the critical need to bring credibility to the marketplace for water-efficient products. Consumer satisfaction ratings and reviews can serve as a supplemental rating on a product labeled with the WaterSense logo, but should not be paramount to the water efficiency of products. We do not support using consumer satisfaction ratings as a criteria for a product to be WaterSense certified, nor including this information in product guidelines. Consumer satisfaction ratings is pertinent data to a product's seller and producer, but should not hold grounds in a federal water efficiency program's guidelines. The foundational components of water efficiency and water conservation should be the primary matters handled by the WaterSense Program.

Connecticut remains committed to forming a strong partnership with the WaterSense program, and we will continue to support the program's goals of water conservation. We would be happy to provide additional information concerning our comments.

Sincerely,

June 19, 2020
Date

Jennifer L. Perry
Director
Water Planning and Management Division
Bureau of Water Planning and Land Reuse

Commenter: Kim Robinson
Affiliation: General Public
Comment Date: June 21, 2020
Document ID: EPA-HQ-OW-2020-0026-0070

Comment Text:

I am writing to comment on EPA-HQ-OW-2020-0026. As a parent, I am deeply concerned about a sustainable future for my children, reducing household costs, and clear labeling. The current WaterSense program specifications support all of these important goals. I strongly support the current specifications and definitely do not believe that customer satisfaction criteria should be included in them.

Thank you,

Kim Robinson

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: June 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0071

Comment Text:

As an informed citizen, I would not like customer opinions to determine whether or not an appliance should be taken into consideration for the WaterSense Program. Researchers, scientists, and agencies complete arduous work to determine what products and services are water-efficient, and will thereby save our precious natural resources. As consumers, we trust in that work and the research that informs the process. The climate crisis is significantly impacting our communities and local environments, and products that save water are extremely beneficial. As a consumer, I am grateful the WaterSense label is found in products. the WaterSense program tracks how much water and energy has been saved. The benefits of the program are tremendous. WaterSense helps me know that my purchase is not only saving me water, but will preserve water for my children and grandchildren.

Commenter: M. Magana
Affiliation: General Public
Comment Date: July 1, 2020
Document ID: EPA-HQ-OW-2020-0026-0072

Comment Text:

I am writing in support of continuing the WaterSense Program. As a water utility, your WaterSense program guidance and grant programs have been essential in delivering educational information to our customers. We are a small utility that is extremely under-staffed, and the WaterSense program has helped me meet compliance and water use efficiency goals. WaterSense saves valuable time and money, and helps me meet the many demands of a water system on a daily basis. Thank youf for ensuring this inexpensive, valuable, and effective program continues to deliver for the American people.

Commenter: Rick L. Callender, Chief of External Affairs
Affiliation: Santa Clara Valley Water District
Comment Date: June 29, 2020
Document ID: EPA-HQ-OW-2020-0026-0073

Comment Text:

Please see attached comments

Attachment

See pages 129 and 130.

June 29, 2020

The Honorable Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
1300 Pennsylvania Avenue
Washington, D.C. 20004

Subject: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense Program

Dear Administrator Wheeler:

On behalf of the Santa Clara Valley Water District (Valley Water), I write to express our strong support for the Environmental Protection Agency's (EPA) WaterSense Program, in response to the Notice of Recent Specifications Review and Request for Information published on April 10, 2020, in the Federal Register. Thank you for the opportunity to comment on this important program.

The WaterSense Program has resulted in savings of $84.2 billion in water and energy bills since 2006. The Program's products have resulted in exceptional performance, savings on our water bills, and water efficiency. The program results in tangible savings for residents and businesses and has a demonstrated track record of success, and therefore the specifications should not include customer satisfaction criteria without first conducting adequate research and studies.

Valley Water's water conservation program relies on the EPA WaterSense program. Here are just a few ways that Valley Water and Santa Clara County benefit from this program:

- Valley Water-Landscape Rebate Program's Qualifying Weather Based Irrigation Controller List is based on the EPA WaterSense certification. It's the only list that consistently evaluates the efficiency of controllers and allows us to create a list of qualifying products.

- We do not have the staff power or budget to create testing and certification programs on our own, so we rely on WaterSense certification to ensure that we are rebating for products that are performing to a higher standard.

- Since 1992, this program has helped Valley Water save approximately 2.67 billion kilowatt-hours (kWh) of energy (worth $347 million assuming average residential electricity rates).

- And during just the last fiscal year, the program helped our county save more than 70,000 acre feet of water—enough to supply more than 700,000 people for a year!

In light of the success of the labeling program, Valley Water believes that customer satisfaction criteria do **not** belong in WaterSense product specifications themselves. Instead, we recommend that further revisions on any specifications center on adequate study, research, and a focus on future needs.

Thank you for doing your utmost to ensure that this inexpensive, valuable, and effective program continues to deliver for the American people.

Sincerely,

Rick L. Callender, Esq.
Chief of External Affairs
Acting for Norma J. Camacho
Chief Executive Officer

lf:fd
0630a-l

Commenter: Erik Hitchman, General Manager
Affiliation: Walnut Valley Water District
Comment Date: July 6, 2020
Document ID: EPA-HQ-OW-2020-0026-0074

Comment Text:

Walnut Valley Water District - Letter of Support

Attachment

See page 132.

WALNUT VALLEY WATER DISTRICT

271 South Brea Canyon Road
Walnut, California 91789-3002 • (909) 595-1268 • (626) 964-6551
www.wvwd.com • Fax: (909) 444-5521

July 6, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

RE: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

Dear Administrator Wheeler:

The Walnut Valley Water District (WVWD) Board of Directors and staff strongly support the continuation of the valuable and effective WaterSense program. Our customers greatly benefit from WaterSense-labeled products, rebates, and educational materials.

WVWD serves potable water to over 100,000 multi-use customers within a 20 square mile service area in eastern Los Angeles County. The WaterSense program is a key component in our water conservation outreach to both our residential and commercial customers. As we continue to expand the District's conservation program, we plan to incorporate partnerships with energy utilities to increase energy savings with WaterSense–labeled products.

Most importantly, the WaterSense brand and programs have proven very effective nationwide. Annual water and energy savings continue to rise, resulting in a significant financial benefit to both consumers and water, sewer and energy utilities.

Thank you for providing us with this opportunity to comment on the WaterSense program.

Sincerely,

Erik Hitchman
General Manager
Walnut Valley Water District

Commenter: Kelly Kopp, Director
Affiliation: Center for Water Efficient Landscaping, Utah State University
Comment Date: July 21, 2020
Document ID: EPA-HQ-OW-2020-0026-0075

Comment Text:

Re: Docket ID No. EPA–HQ–OW–2020–0026

The Center for Water Efficient Landscaping writes today to submit comments regarding WaterSense in response to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published on April 10, 2020 in the Federal Register. Please see the attached letter.

Attachment

See pages 134 and 135.

CENTER FOR WATER-EFFICIENT LANDSCAPING

July 21, 2020

To whom it may concern,

The Center for Water Efficient Landscaping, based at Utah State University, *strongly supports the USEPA's WaterSense Program*. As a partner to the WaterSense Program, we write today to submit comments to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published April 10, 2020.

Since 2006, WaterSense has based its product specifications on measured values of performance by a third-party certifying organization, the gold standard for performance measures. This approach has not only provided clear guidance for manufacturers who produce WaterSense products, but has also provided objective, research-based information to consumers.

We oppose *the proposed change to this process of inclusion of customer satisfaction data within WaterSense product specifications.* Including a non-scientific concept such as customer satisfaction criteria in the specifications could introduce bias into what, up to now, has been an objective and unbiased scientific process.

There *are* reasonable uses for product customer satisfaction information, but this research should be left to manufacturers and the marketplace itself. Product manufacturers are well-suited to this work, as they conduct such surveys routinely and use them in product development and brand strategy.

Within WaterSense, *we support limiting the scope of customer satisfaction research to the WaterSense brand itself, and WaterSense partnerships*, such as those the ENERGY STAR program has conducted in the past. This would inform the USEPA about American's opinion of the program and their experience with the labeled products, helping guide the direction of the program and brand, similarly to how manufacturers use such information to guide product development.

We also write in support of allowing WaterSense to revise and develop specifications in the future. This is imperative for advancing the specifications and allowing labelled products to keep up with changing technologies and societal needs.

We note that *more than 2,000* manufacturers, retailers and distributors, water and energy utilities, state and local government, non-profit and trade organizations, irrigation training organizations, and home builders strengthen their businesses through partnerships with WaterSense. The program has also saved more than *4.4 trillion gallons of water* and more than

$87 billion in water, sewer and energy bills since 2006, not to mention the *522.9 billion kilowatt-hours of electricity* saved as a result of WaterSense-labeled product use.

The WaterSense program is a tremendous success for USEPA! And public and private utilities and organizations in all 50 states, including our own, tailor successful water conservation programs around consumer use of WaterSense labeled products.

Respectfully submitted,

Kelly Kopp, Director
Center for Water Efficient Landscaping
Utah State University

Commenter: Rick Maloy, President
Affiliation: Utah Water Conservation Forum
Comment Date: July 21, 2020
Document ID: EPA-HQ-OW-2020-0026-0076

Comment Text:

Refer to: Docket ID No. EPA–HQ–OW–2020–0026

Attachment

See pages 137 and 138.

July 21, 2020

To whom it may concern,

The Utah Water Conservation Forum, a group of industry leaders and water professionals in Utah, *strongly supports the USEPA's WaterSense Program*. As a partner to the WaterSense Program, we write today to submit comments to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published April 10, 2020.

Since 2006, WaterSense has based its product specifications on measured values of performance by a third-party certifying organization, the gold standard for performance measures. This approach has not only provided clear guidance for manufacturers who produce WaterSense products, but has also provided objective, research-based information to consumers.

We oppose *the proposed change to this process of inclusion of customer satisfaction data within WaterSense product specifications.* Including a non-scientific concept such as customer satisfaction criteria in the specifications could introduce bias into what, up to now, has been an objective and unbiased scientific process.

There *are* reasonable uses for product customer satisfaction information, but this research should be left to manufacturers and the marketplace itself. Product manufacturers are well-suited to this work, as they conduct such surveys routinely and use them in product development and brand strategy.

Within WaterSense, *we support limiting the scope of customer satisfaction research to the WaterSense brand itself, and WaterSense partnerships*, such as those the ENERGY STAR program has conducted in the past. This would inform the USEPA about American's opinion of the program and their experience with the labeled products, helping guide the direction of the program and brand, similarly to how manufacturers use such information to guide product development.

We also write in support of allowing WaterSense to revise and develop specifications in the future. This is imperative for advancing the specifications and allowing labelled products to keep up with changing technologies and societal needs.

We note that *more than 2,000* manufacturers, retailers and distributors, water and energy utilities, state and local government, non-profit and trade organizations, irrigation training

organizations, and home builders strengthen their businesses through partnerships with WaterSense. The program has also saved more than *4.4 trillion gallons of water* and more than *$87 billion* in water, sewer and energy bills since 2006, not to mention the *522.9 billion kilowatt-hours of electricity* saved as a result of WaterSense-labeled product use.

The WaterSense program is a tremendous success for USEPA! And public and private utilities and organizations in all 50 states, including our own, tailor successful water conservation programs around consumer use of WaterSense labeled products.

Respectfully submitted,

Rick Maloy, President
Utah Water Conservation Forum

Commenter: Donald F. Greeley, Director
Affiliation: City of Durham (North Carolina) Department of Water Management
Comment Date: July 21, 2020
Document ID: EPA-HQ-OW-2020-0026-0077

Comment Text:

See attached file(s)

Attachment

See pages 140 and 141.

WATER MANAGEMENT
CITY OF DURHAM

July 21, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

RE: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

Dear Administrator Wheeler:

The City of Durham Department of Water Management (DWM) respectfully submits the following comments in response to the *Notice of Recent Specifications Review and Request for Information on the WaterSense Program* published on April 10, 2020 in the Federal Register as Docket ID: EPA-HQ-OW-2020-0026.

In Durham, we regularly utilize the tools, technical assistance, research, and data provided by the WaterSense program. The City of Durham has been a promotional partner in the EPA's WaterSense Program since 2007, and it has become absolutely essential to our ongoing efforts to provide quality services and programming to our residents and customers. Our Toilet Rebate program and our Water Efficiency Kit program rely the WaterSense product labeling system.

In 2019 alone, we estimate that Durham's WaterSense-related programming, such as our toilet rebate program and showerhead program, saved over 4.5 million gallons. Durham's experience has been that customers and retailers are very satisfied with products that have received the WaterSense label. In the 12 years that we have been WaterSense promotional partners, we have not received any complaints regarding the performance of their fixtures from participants in our programs.

Nationally, the program has saved trillions of gallons of water and has provided customers with confidence in their purchasing choices of water-efficient fixtures. By focusing on both water-savings and performance, the WaterSense program has a successful history of working with relevant manufacturers and interested parties to craft fair, science-based methods to evaluate the efficacy of products.

As such, DWM believes that customer satisfaction criteria should not be included as part of WaterSense product specifications. Incorporating customer satisfaction criteria into WaterSense specifications would introduce uncertainty and bias into an otherwise fair and scientific process.

DWM supports the EPA's decision not to revise any product specifications at this time; however, we do suggest that the EPA continue to regularly review WaterSense product performance criteria. As technology changes, periodic review of product performance and specifications will allow WaterSense to ensure product specifications continually advance.

Thank you for the opportunity to provide input on the WaterSense Program. Durham remains committed to partnering with EPA WaterSense program and will continue to support the program's goals for water efficiency. We value and appreciate the EPA's continued efforts to support and ensure the continuity of this essential and effective program.

Sincerely,

Donald F. Greeley, P.E., P.L.S.
Director

Commenter: Katherine Zitsch, Director
Affiliation: Metropolitan North Georgia Water Planning District
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0078

Comment Text:

Please find attached the Metropolitan North Georgia Water Planning District's comments on the Notice of Recent Specifications Review and Request for Information on WaterSense Program.

Attachment

See pages 143 through 150.

Metropolitan North Georgia Water Planning District
International Tower | 229 Peachtree St., NE | Suite 100 | Atlanta, GA 30303

July 23, 2020

VIA REGULATIONS.GOV
Docket ID No. EPA–HQ–OW–2020– 0026

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

RE: Metropolitan North Georgia Water Planning District's Comments
Notice of Recent Specifications Review and Request for Information on WaterSense Program

Dear Administrator Wheeler,

The Metropolitan North Georgia Water Planning District (the "District") appreciates the opportunity to provide comments regarding the EPA's Notice of Recent Specifications Review and Request for Information on WaterSense Program ("Request for Information"). The District is a regional water planning organization covering 15 counties and 95 cities across the greater metropolitan Atlanta area, serving as a regional source of expertise regarding water use and efficiency. For five consecutive years, the EPA has recognized the Metro Water District for its innovative water conservation programming and close collaboration with its network of partners, including the 55 water providers in the metro Atlanta region. Most recently, the District received the WaterSense Sustained Excellence Award in October 2019. The District's work includes our regional Water Resource Management Plan, a technical assistance program, and extensive educational and outreach efforts. These efforts have distinguished the District as a national leader in water conservation and have contributed to a 10% decrease in total withdrawals within the Metro Atlanta region, while the area's population has increased by 1.3 million individuals since 2000.

Many of the District's water efficiency programs depend on WaterSense-labeled products, including:

- The current Georgia plumbing code requires the use of WaterSense labeled toilets, urinals, and lavatory faucets.
- The District and our utility partners have saved more than 2.4 million gallons of water per day through the replacement of over 145,000 old and inefficient toilets with WaterSense toilets.

- The District specifies the use of WaterSense labeled irrigation controllers within its ordinance on large landscapes.
- The District requires the replacement of inefficient toilets and urinals with WaterSense labeled versions within local government buildings.

WaterSense programs are well-integrated into the District's work. The District looks to the program for the promotion, education and implementation of water conservation and efficiency and utilizes these tools within our own scope of work. Given the District's experience with the WaterSense program, we would like to express our support for the Alliance for Water Efficiency's (AWE) comments related to EPA's Request for Information.

Through a variety of programs, the District advocates for the adoption and utilization of leading water efficient products that are readily available on the market. The District strongly agrees with AWE that it is critical that specifications continue to progress in efficiency capabilities into the future. Though the EPA is electing not to revise any WaterSense specifications at this time, the District believes these specifications should be regularly re-assessed into the future to ensure that WaterSense products are keeping pace with those available on the market.

With rapid advancements in technology, and the decision not to revise the WaterSense standards today, it can no longer be guaranteed that WaterSense labeled products are providing the highest level of efficiency among readily available products. The District recently conducted market research (See Attachment A) on the availability of efficient plumbing fixtures. These results were published in 2020 in *The Georgia Operator*. [1] Results indicated that there are a wide variety of ultra-high efficient fixtures readily available today, with some in greater quantities than fixture products meeting the minimum level of efficiency required in current WaterSense specifications.

With continuous rapid advancements in technology, the WaterSense program should reflect the leading products in water efficiency to continue to drive the market. If the goal is for WaterSense labeled products to be at least 20% more efficient than standard models, as stated in various program materials and the Request for Information, it appears that WaterSense is not meeting this goal in Georgia. Given that other states also have ultra-high efficiency plumbing codes and programs, this goal is likely not being met in other states as well.

As a result of WaterSense's decision not to update its standards at this time, the District can no longer rely solely on the WaterSense label to ensure consumers receive the benefit of the most efficient, readily available technologies. For example, of the showerheads reviewed as part of the District's retail market research, 72% (465 models) used 1.8 gpm or less. The WaterSense label requires showerheads using 2.0 gpm or less. As a result, the District's programs will now ask customers looking to maximize their efficiency to look for the WaterSense label and fixtures that use 1.8 gpm.

[1] Georgia Operator Summer 2020 issue (p.40-42) (https://www.gawp.org/page/GAOPOnlineMagazine)

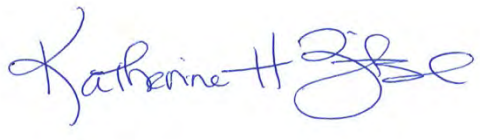
As another example, 1.2 gpm lavatory faucets were common based on the retail market data. Currently, WaterSense labels lavatory faucets using 1.5 gpm or less. This availability of 1.2 gpm lavatory facuets presents the program with the opportunity to further increase WaterSense efficiency standards.

The WaterSense program is, and will remain, vital to the planning process and work of the District, and we will continue to promote this program. However, when the WaterSense program lags behind the efficiency levels of readily available products, the District's message to consumers will need to be more nuanced and complex. Ideally, the WaterSense specifications would be revised soon to account for the higher efficiency levels of readily available products.

The District is grateful for this opportunity to share our comments. The WaterSense program demonstrates on a national scale the significance of water as a resource now and into the future. Moving forward, the District intends to maintain our strong relationship with WaterSense and continue to utilize the program as a standard within our work.

If you have any questions regarding this letter, the District, or our research, please do not hesitate to reach out at kzitsch@atlantaregional.org.

Sincerely,



Katherine Zitsch
Director
Metropolitan North Georgia Water Planning District

cc: Glenn Page, District Board Chair

Attachment A

Market Research Shows Current Georgia Plumbing Fixture Efficiency Requirements Are Often Exceeded

by Andrew D. Morris, Céline Mollet Saint Benoît, and Jacob Whitacre

Published in *The Georgia Operator,* Summer 2020 issue (p.40-42)
(https://www.gawp.org/page/GAOPOnlineMagazine)

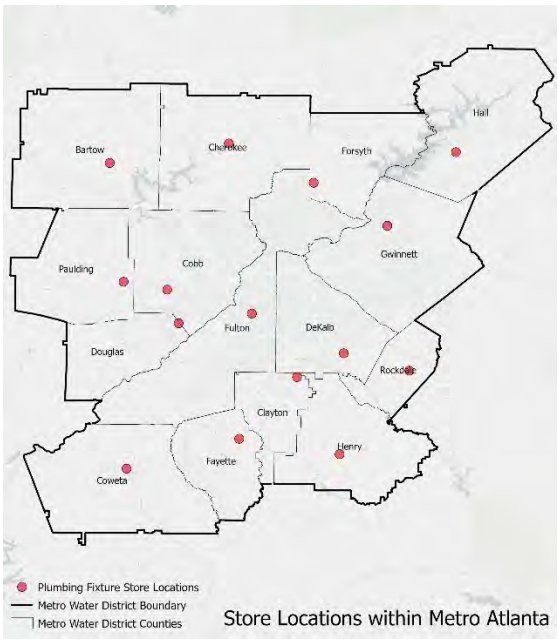
The Metropolitan North Georgia Water Planning District (the "Metro Water District") is frequently presented with the following question from utilities and other stakeholders: "With Georgia already a national leader on water efficiency, how much more efficient can residential customers become?"

Georgia's national leadership over the past two decades is unquestionable. For example, Georgia is ranked as the 4th best state for water efficiency and conservation in the Alliance for Water Efficiency's 2017 report titled: "The Water Efficiency and Conservation State Scorecard: An Assessment of Laws." Only Arizona, California, and Texas scored better than Georgia on this scorecard. Exemplifying this success, the Metro Water District withdraws 10% less water today than in 2000 despite a 1.3 million increase in population.

Efforts by the State of Georgia, the Metro Water District, and utilities have all helped drive down total water withdrawals and per person water demands. The use of high-efficiency plumbing fixtures has played a key role in this progress. In the 2000s, the Metro Water District and its local government partners promoted high-efficiency fixtures through rebates, education, and a variety of other programs. The State of Georgia built on these efforts in 2010 when the Georgia General Assembly passed the Georgia Water Stewardship Act. This act requires, among other things, the use of high-efficiency plumbing fixtures through plumbing code standards for toilets, urinals, and faucets in new and renovated buildings.

Since it's been 10 years since the Georgia Water Stewardship Act was passed, a review of current trends in water efficient plumbing fixtures is needed to answer the question of what additional efficiency is feasible today. Therefore, the Metro Water District has taken a data-driven approach to survey today's technology trends and to see how plumbing fixtures in retail stores meet or exceed the State of Georgia's minimum plumbing fixture efficiency requirements.

For the Metro Water District's market research, plumbing fixtures available in stores at Home Depot, Lowe's, and Walmart retail stores in the Metro Water District were reviewed. Five of each store, for a total of 15 retail stores, were selected at random, and research was conducted at the following locations:



The market research was performed electronically by selecting a specific store location on each retailer's website and then choosing the option to only show products available on the day of the review at the selected store. Fixture data were gathered from retail stores because they provided the most robust and readily accessible data set on plumbing fixture availability, pricing, and customer satisfaction. While many fixtures are sold through other channels to builders and contractors, these sources do not readily provide the same amount and quality of data.

Table 1 shows the current fixture efficiency requirements in the State of Georgia. In the figures below, fixtures listed as meeting current efficiency requirements are those that match exactly the current Georgia efficiency requirements. The retail market data shown in these figures strongly support the conclusion that exceeding current efficiency requirements remains feasible for three reasons.

Table 1. Current Georgia Efficiency Requirements.

Fixture	GA State Code
Toilet	1.28 gpf
Showerhead	2.5 gpm
Kitchen Faucet	2.0 gpm
Lavatory Faucet	1.5 gpm

First, fixtures that exceed the current efficiency requirements are readily available. In fact, the results provided in Figure 1 show that, except for toilets, there are many more fixtures available in retail stores that exceed the standards than those that meet it.

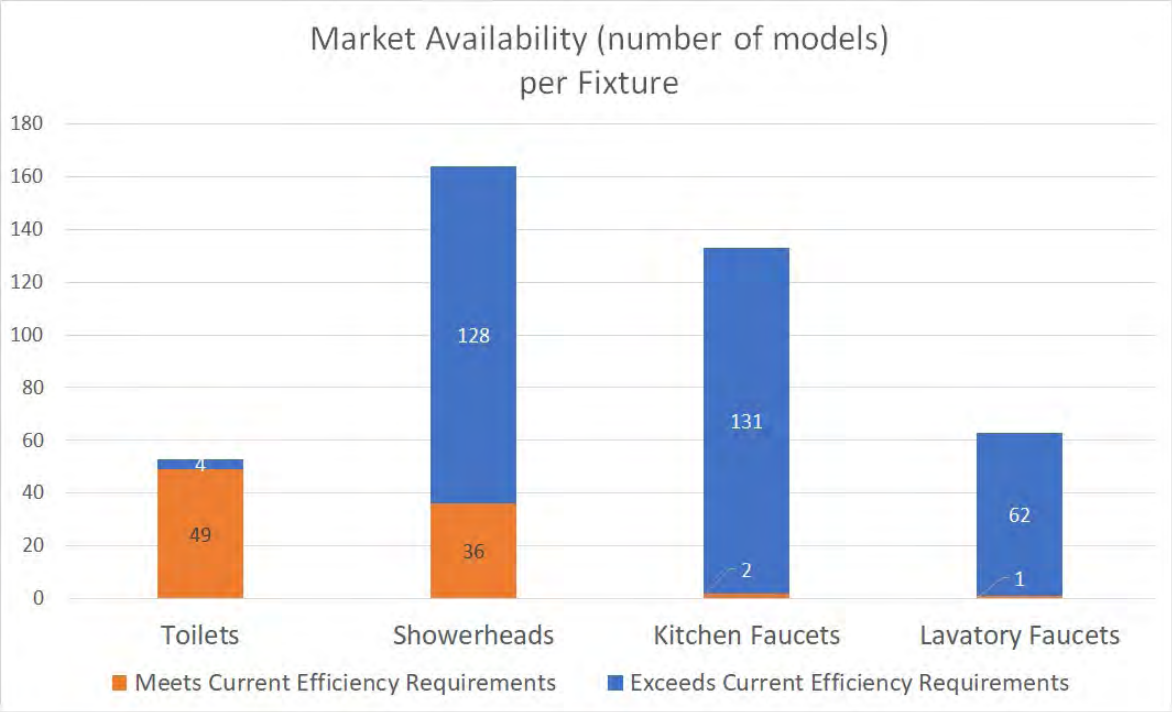


Figure 1. Market availability of fixture models.

Showerheads and faucets that exceed current requirements are widely available. It's worth noting that while only four toilet models that exceed current efficiency requirements were available in stores, nearly every store carried at least one of these four very popular models that exceed current efficiency requirements. The Metro Water District is exploring additional research avenues to understand what models are available beyond retail store shelves that exceed current efficiency requirements. For example, the MaP voluntary toilet performance testing program has tested more than 100 models that exceed current efficiency requirements. See https://www.map-testing.com/map-premium.html. More research is needed to understand why more models are not available at retail.

Second, customers appear to be very satisfied, and sometimes more satisfied, with fixtures that exceed current efficiency requirements as seen in Figure 2. We've excluded faucets from the chart below given how few faucets are available that merely meet the current efficient requirements (2 kitchen faucets and 1 lavatory faucet).

Figure 2. Customer satisfaction ratings of toilet and showerhead fixtures.

Third, fixtures that exceed current efficiency requirements fall within a similar price range as demonstrated in Figure 3. Again, faucets have been excluded given the limited number available that merely meet current requirements.

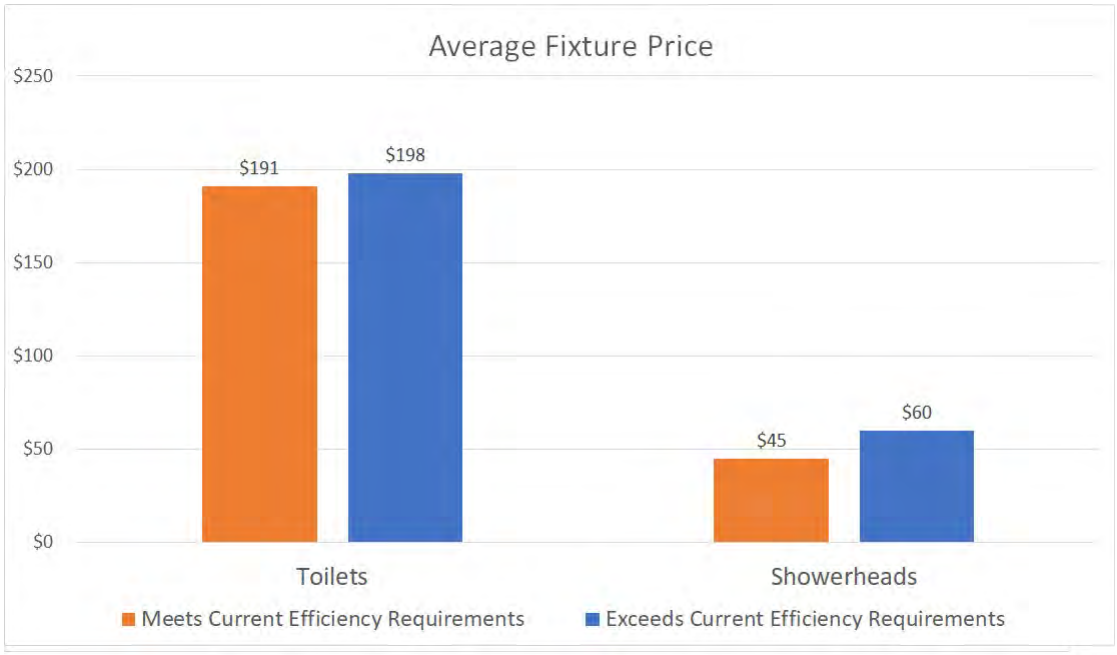


Figure 3. Average price of toilet and showerhead fixtures.

While the average price for showerheads that exceed current efficiency requirements is somewhat higher, the difference in price would be recouped in utility bill savings in less than a year. Compared to showerheads that merely meet Georgia's current efficiency requirements, EPA's WaterSense program estimated the utility bill savings in its March 4, 2010 Supporting Statement for the WaterSense Specification for Showerheads, with the WaterSense showerheads exceeding Georgia's current efficiency requirements. The relevant part reads:

> "The average homeowner retrofitting his or her showerheads with WaterSense labeled showerheads will realize an accompanying $14 savings on water and wastewater costs annually due to lower water consumption. Factoring in the accompanying energy savings, the average household with electric water heating may save an additional $36, for a combined annual savings of $50. The average household with natural gas water heating may save an additional $18 for a combined annual savings of $32."

Accounting for inflation and average water, sewer, and energy rate increases since 2010 when WaterSense did this analysis, the savings would be even larger today.

Also, if one is looking for the least expensive showerhead options, our data show that five of the 10 least expensive models were models that exceed current efficiency requirements. Clearly, many low-cost showerhead models are available.

In conclusion, the data from the Metro Water District show that plumbing fixture technology and markets continue to advance, and so the question "How much more efficient can our residential customers become?" is one that must be reevaluated from time to time. Based on this evaluation of current technologies available at retail stores in the Metro Water District, exceeding current efficiency requirements remains feasible.

The data also show that, even without code changes, some new and renovated homes will use fixtures that exceed current efficiency requirements based simply on what is already widely available on retail store shelves.

The Metro Water District expects to continue our work to take advantage of new efficiency opportunities through a data driven approach. We would love to hear from you if you have experience or insights on plumbing fixture efficiency that will help us in our research, analysis, and action through the Metro Water District's technical assistance programming and next regional plan update.

Note: copies of the retail data are available by emailing amorris@northgeorgiawater.com.

Commenter: Denis Martynowych
Affiliation: General Public
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0079

Comment Text:

EPA's Water Sense program has proved VERY useful. It must b e continued and fully supported as a proven source of high quality research and education in how Americans as individuals, communities and businesses can save water and money. Frivolous, politically motivated attacks like the President Trumps complaints about double flushing toilets are not grounded in science. Water efficiency is critically important. It prolongs the life of our infrastructure, it saves consumers money, and it protects a precious, limited resource.

Commenter: Sara Elsa-Beech
Affiliation: General Public
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0080

Comment Text:

As an architect long involved in water-conservation and sustainability, I would like to comment on EPA-HQ-OW-2020-0026. The current WaterSense program has done a tremendous amount to promote and support water-efficiency. This national program has enabled water agencies across the nation to be able to implement successful water conservation programs involving consumer selection, and use of, WaterSense-labeled products. The development of reliable water-efficient technology has been a real success of our nation, and a national program to promote and support this is critical. The WaterSense program does not need to include customer satisfaction criteria; I strongly support the program as it has been running, without weakening or the distraction of added customer satisfaction criteria. Thank you for the consideration.

Commenter: Elizabeth Beardsley, Senior Policy Counsel
Affiliation: U.S. Green Building Council (USGBC)
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0081

Comment Text:

Please see comments from the U.S. Green Building Council (USGBC) in the attached file.

Attachment

See pages 154 through 156.

USGBC
2101 L STREET, NW
SUITE 500
WASHINGTON DC 20037
202 828-7422
USGBC.ORG

July 23, 2020

David Ross
Assistant Administrator
Office of Water
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC, 20460

RE: Recent Specifications Review and Request for Information on WaterSense Program

Dear Assistant Administrator Ross,

On behalf of the U.S. Green Building Council (USGBC) and our over 9,000 member companies nationwide, we are pleased to provide our comments regarding EPA's recent specifications review of the WaterSense Program.

USGBC is a nonprofit organization dedicated to transforming the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy, and prosperous world. Our flagship green building system, Leadership in Energy & Environmental Design (LEED), has been embraced across the world. USGBC represents a full range in the building sector, including builders, product manufacturers, professional firms, and real estate professionals.

First and foremost, we urge EPA to continue to fully implement and invest resources in the WaterSense program. Since its creation in 2006, WaterSense has saved more than 4.4 trillion gallons of water as a voluntary labeling program.[1] The program has saved users more than $87 billion in water and energy bills over the same timeframe.[2] In 2018, Congress statutorily authorized and expanded the program via America's Water Infrastructure Act (AWIA) of 2018. The law required EPA to "consider for review and revise, if necessary, any WaterSense performance criteria adopted before January 1, 2012."[3]

On behalf of our member organizations and credentialed professionals, USGBC wishes to express our support for EPA's proposed decision not to revise WaterSense program specifications. EPA's proposal means standards will remain unchanged—standards that saved Americans 871 billion gallons of water in 2019 alone.[4]

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[1] Environmental Protection Agency, "WaterSense Accomplishments 2019." https://www.epa.gov/sites/production/files/2020-07/documents/ws-aboutus-2019_watersense_accomplishments.pdf.
[2] Ibid.
[3] America's Water Infrastructure Act of 2018 (AWIA), p. 121. https://www.congress.gov/115/bills/s3021/BILLS-115s3021enr.pdf.
[4] Ibid.

USGBC
2101 L STREET, NW
SUITE 500
WASHINGTON DC 20037
202 828-7422
USGBC.ORG

USGBC relies on WaterSense because of its rigorous 3rd party performance testing and life-cycle quality assurance to ensure fixtures installed in residential, commercial, and government buildings are truly water efficient. Every prospective LEED project must achieve the Indoor Water Use Reduction prerequisite, which sets minimum water efficiency metrics.[5] The prerequisite requires all newly installed toilets, urinals, private lavatory faucets, and showerheads to feature the WaterSense label.

We concur with comments made by the Alliance for Water Efficiency (AWE), stated in their letter dated June 8. There are reasonable uses for customer satisfaction information within WaterSense, but customer satisfaction criteria do not belong in product specifications themselves.[6] We also reiterate comments made by the Connecticut Department of Energy and Environmental Protection in their letter dated June 19, that consumer satisfaction ratings should not become a criterion for a product to achieve WaterSense certification.[7] Rigorous product performance standards alone should dictate whether or not a product achieves WaterSense certification. To the extent that EPA proceeds with consideration of consumer satisfaction in the program—by providing additional information for the public but not part of certification, for example—the data should be representative of all consumers, unbiased, and independently obtained by a third party.

The success of the WaterSense program clearly contributes to the program's well-documented popularity. According to a survey of utility companies conducted by the American Water Works Association, all respondents reported their end-use customers were satisfied with WaterSense labeled products.[8] The popularity of the certification with consumers led The Home Depot to exclusively feature WaterSense products at their retail stores.[9] We agree with AWE, that the program enjoys "tremendous success and popularity…because WaterSense specifications include measurable performance requirements that result in products that work better for consumers than the products they had before."[10]

USGBC commends EPA for the clear successes of the WaterSense program. Preserving performance-based program specifications would ensure users continue to save water, energy, and money.

---

[5] Indoor Water Use Reduction Credit, https://www.usgbc.org/credits/new-construction-core-and-shell-data-centers-new-construction-warehouse-and-distribution-0?return=/credits/New%20Construction/v4.1/Water%20efficiency.

[6] Alliance for Water Efficiency, June 8, 2020. "Comments on Docket ID No. EPA-HQ-OW-2020-0026 Request for Information on the WaterSense® Program." https://www.allianceforwaterefficiency.org/sites/www.allianceforwaterefficiency.org/files/assets/AWE-Letter-to-EPA-Admin-Wheeler-regarding-Federal-Register-NOI-final.pdf. pp. 1-9.

[7] Connecticut Department of Energy and Environmental Protection, June 19, 2020. "Re: Comments on Review of WaterSense Program specifications." https://beta.regulations.gov/document/EPA-HQ-OW-2020-0026-0069. 1.

[8] American Water Works Association, June 8, 2020. "Comments on EPA's "Notice of Recent Specifications Review and Request for Information on WaterSense Program (EPA-HQ-OW-2020-0026)". https://beta.regulations.gov/document/EPA-HQ-OW-2020-0026-0065. 4.

[9] Alliance for Water Efficiency, June 8, 2020. 7.

[10] Ibid, 8.

Please do not hesitate to contact us if you have any questions, or if we can be of any assistance.

Sincerely,

Elizabeth Beardsley
Senior Policy Counsel
ebeardsley@usgbc.org

U.S. Green Building Council
2101 L Street NW Suite 500
Washington, DC 20037

USGBC
2101 L STREET, NW
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WASHINGTON DC 20037
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Commenter: Clifford C. Chan, General Manager
Affiliation: East Bay Municipal Utility District (EBMUD)
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0082

Comment Text:

See attached file(s)

Attachment

See page 158.

EAST BAY
MUNICIPAL UTILITY DISTRICT

CLIFFORD C. CHAN
GENERAL MANAGER

July 23, 2020

VIA FEDERAL E-RULEMAKING PORTAL

Mr. Andrew Wheeler
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

Dear Administrator Wheeler:

The East Bay Municipal Utility District (EBMUD) writes to express its strong support for the WaterSense labeling program administered by the United States Environmental Protection Agency. The WaterSense program has a successful track record of helping consumers save water and money. It is also a vital tool that helps water agencies manage limited water resources.

According to the Alliance for Water Efficiency (AWE), since its inception in 2006 the WaterSense program has saved more than 4.4 trillion gallons of water. The program has also helped consumers save money. The average American family spends more than $1,000 per year on water but can save more than a third of that amount by retrofitting with WaterSense-labeled fixtures and ENERGY STAR-certified appliances. In total, it is estimated that the program has yielded more than $87 billion in savings on water, sewer, and energy bills. The program has accomplished this despite a modest annual budget of $2 million.

The WaterSense program is particularly vital to water agencies looking to manage scarce resources. EBMUD serves more than 1.4 million customers in the eastern San Francisco Bay Area. Significant fluctuations in annual hydrology, including droughts, lead to uncertainty in EBMUD's supply of potable water. In order to ensure the long-term reliability of its water supply, EBMUD requires that new developments use water-efficient fixtures and appliances. The WaterSense program makes it easy for customers to comply with these requirements.

Lastly, EBMUD is an active member of AWE and supports the points that AWE raised in its own July 22, 2020, comment letter.

Sincerely,

Clifford C. Chan

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . (510) 287-0101

Commenter: Steven Westphal, Senior Legal Director - Commercial
Affiliation: Kohler Co.
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0083

Comment Text:

Please find comments from Kohler Co. attached.

Attachment

See pages 160 and 161.

Kohler Co. 444 Highland Drive Kohler, Wisconsin 53044 920-457-4441 kohler.com

KOHLER.

U.S. Environmental Protection Agency
RE: Docket ID No. EPA-HQ-OW-2020-0026 Request for Information on the WaterSense® Program

Dear Docket Administrator:

As a leading manufacturer of bathroom and kitchen plumbing fixtures, Kohler Co. deeply values sustainable water use in our operations, the home and the community. Based in Wisconsin, Kohler Co. has worked consistently for more than a decade to make it easier for Americans to use less water without sacrificing the performance they expect in their kitchens and bathrooms. Being a manufacturer of WaterSense products, such as showerheads, toilets, urinals and lavatory faucets, Kohler Co. appreciates the opportunity to provide comments on the Request for Information on the WaterSense® Program, Docket ID No. EPA-HQ-OW-2020-0026.

Kohler Co. is highly supportive of the EPA WaterSense program and has been since its inception in 2006. As a partner in the program, we strive to not only be engaged but to excel, earning ten EPA WaterSense awards including multiple Manufacturer Partner of the Year and Sustained Excellence awards. We have found the program to be effective for manufacturers, retailers and consumers, so much so that we have worked to promote it in other countries as well.

As a manufacturer, we value this robust program, developed in conjunction with all stakeholders using a balanced, consensus process. The input of manufacturers is, and should continue to be, utilized during the development and review of WaterSense specifications. We appreciate that the WaterSense program brought consistency to water efficiency programs nationally. Prior to its inception, cities and states were developing unharmonized requirements for water consumption, or for eligibility for rebates from their local efficiency programs. By creating a national program, manufacturers were able to focus their product development strategies on specific targets with the knowledge that markets would accept the new products. As states looked to mandate higher levels of water efficiency, Kohler Co. and other plumbing manufacturers encouraged them to adopt WaterSense. Almost all of them did and were able to implement new rules with little to no disruption of the market.

The EPA WaterSense program provides value to consumers, allowing an easy way to identify efficient products that have been tested to performance standards. We currently offer over 900 WaterSense certified products. This investment is not only because we believe in the value of water, but because consumers are purchasing these products. Regarding customer satisfaction, over 98% of customer inquiries in 2019 were not associated with high efficiency product flow or flushing performance, demonstrating that overall, consumers are satisfied with WaterSense certified products.

Additionally, internal retail market research from 2017 offered findings that demonstrated once the WaterSense program was explained, the majority of panelists stated they would be more likely to purchase products with the WaterSense label. This supports the position that if the benefits of WaterSense are shared with the public, customers are more likely to purchase a WaterSense product over a non-WaterSense product.

Kohler Co. 444 Highland Drive Kohler, Wisconsin 53044 920-457-4441 kohler.com

KOHLER.

Finally, regarding the request for customer satisfaction studies or how to conduct studies, Kohler Co. acknowledges that consumer satisfaction is an integral part of the success of the WaterSense program. Prior to lowering flow rates, understanding unintended consequences to public health, infrastructure and general satisfaction is imperative to the future success of the WaterSense program.

We thank you for the opportunity to provide comments and look forward to our continued partnership with the EPA WaterSense program.

Sincerely,

Steven Westphal
Sr. Legal Director - Commercial

Commenter: Jerricho Jonker
Affiliation: General Public
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0084

Comment Text:

As a science student and currently a LEED Green Associate, I have learned it is very important to be efficient with our water, as there is so little fresh water left on earth. I completely support the WaterSense Program and hope they continue to find more ways to help reduce waste.

Commenter: Shyama Orum
Affiliation: General Public
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0085

Comment Text:

As an American I urge you to continue the WaterSense program. Water is a previous resource and we need to conserve it as well as prevent water pollution. Since its inception, the WaterSense program has saved over 4 trillion gallons of water. It has also saved consumers over $87 billion dollars in water and energy costs. This is a program that benefits everyone. Please continue it.

Commenter: Morgan Shimabuku, Research Associate, and Peter H. Gleick, President-emeritus
Affiliation: Pacific Institute
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0086

Comment Text:

Please see comments provided in the attached letter.

Attachment

See pages 165 through 167.

PACIFIC INSTITUTE

Research for People and the Planet

July 23, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, D.C.

Re: Docket ID No. EPA–HQ–OW–2020– 0026

Dear Mr. Wheeler,

The Pacific Institute writes to express our strong support for both maintaining and strengthening the WaterSense Program at the U.S. Environmental Protection Agency (USEPA) and to share with you our submitted comments regarding WaterSense. We are filing these comments in response to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published on April 10, 2020 in the Federal Register. Our comments address the recent USEPA review of the WaterSense Program and highlight the many benefits that residential and non-residential consumers, communities, and our nation receive from the expanding use of WaterSense labeled products.

First, the decision to keep in place current WaterSense standards for water-related appliances and fixtures is the minimum response -- those standards have proven tremendously effective at reducing the water, energy, and economic costs of those water-using fixtures and to have weakened any of them would have had a huge and adverse economic impact on manufacturers and consumers. We believe, however, the evidence also supports updating, strengthening, and expanding WaterSense to cover new technologies. This includes all devices currently under consideration by the WaterSense Program: soil moisture-based irrigation controllers, ion-exchange water softeners, and bath and shower diverters. Moreover, some state standards that go beyond the federal code by use of WaterSense specifications have been in place for nearly a decade, highlighting the need to modernize and update the WaterSense standards and list of appliances. The USEPA should follow suit and adopt new national standards and eliminate the risk that 50 different state standards will once again complicate the efforts of manufacturers to meet market demands.

Second, a primary benefit of high-efficiency appliances, such as toilets, is that they save homes and businesses money on water and wastewater bills. Homeowners and business owners that update hot-water using appliances, such as dishwashers or pre-rinse spray valves, receive the added benefit of cost savings on energy bills. Indeed, many residential and non-residential measures have a “negative

cost," which means that they save the customer more money over their lifetime than they cost to implement. As WaterSense has expanded to outdoor water-using devices such as irrigation controllers, these products can help to save consumers from overwatering their landscape, improving their landscape's health, reducing nuisance flooding, and contributing to reduced runoff into local watersheds. USEPA should initiate an effort to quantify these savings nationwide, including both water and energy savings, as well as additional "co-benefits," following methods such as those described in the Pacific Institute's publication, *Incorporating Multiple Benefits into Water Projects: A Guide for Water Managers*.[1]

Third, from a community perspective, our research has shown that urban water conservation and efficiency measures are less expensive than most new water-supply options and are thus the most cost-effective ways to meet current and future water needs.[2] In California, for example, we found that per unit of water, water conservation and efficiency measures were, in nearly all cases, the least expensive alternative water supply option when compared to water reuse and recycling, stormwater capture, and desalination. An additional benefit to communities that actively pursue water conservation and efficiency is that it can, and already has in many places, reduced or removed the need to access new water supply at all, saving ratepayers enormous amounts of money over the long term.[3]

Finally, at the national level, water savings are measurable. Total water use in US households has dropped 20% between 1990 and 2015 according to the US Geological Surveys regular five-year assessment of US water use.[4] On a per capita basis, domestic water use has dropped 40% over this period. A final benefit of water efficiency products is that they contribute to individual as well as community resilience to water supply shortages and disruptions, lessening the consequences of severe droughts and increasing resilience to climate-change induced scarcity. The USEPA should evaluate the role WaterSense programs play in enhancing water resilience for utilities. This work could be integrated with the ongoing USEPA effort "Creating Resilient Water Utilities (CRWU)."

In closing, we would like to reiterate that water efficiency and water efficient products, such as those credited by the USEPA's WaterSense Program, provide substantial, measurable benefits beyond

---

[1] https://pacinst.org/publication/incorporating-multiple-benefits-into-water-projects/

[2] Cooley, H. and R Phurisamban. 2016. The Cost of Alternative Water Supply and Efficiency Options in California. https://pacinst.org/publication/the-cost-of-alternative-water-supply-and-efficiency-options-in-california/. Also, Cooley, Heather, Rapichan Phurisamban, and Peter Gleick. "The cost of alternative urban water supply and efficiency options in California." Environmental Research Communications 1, no. 4 (2019): 042001.

[3] For example, see Feinglas, Gray, and Mayer (2013) https://www.financingsustainablewater.org/resource-search/conservation-helps-limit-rate-increases-colorado-utility

[4] https://www.usgs.gov/mission-areas/water-resources/science/water-use-united-states?qt-science_center_objects=0#qt-science_center_objects

water savings to homeowners, businesses, and communities. These benefits save money and help to ensure a secure and resilient future for all. We urge the USEPA to not only continue and fully fund the WaterSense Program, but to strengthen it by measuring the co-benefits of the program beyond water savings, continuing to improve device specifications, adding new water-using appliances and devices to the program, and by supporting implementation and distribution of these products nationwide.

Sincerely,

Morgan Shimabuku
Research Associate
Pacific Institute

Peter H. Gleick
President-emeritus
Pacific Institute
Member US National Academy of Sciences

Commenter: Anonymous
Affiliation: Anonymous
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0087

Comment Text:

EPA's WaterSense program and specifications are cornerstone to increasing household and commercial water use efficiency. WaterSense provides customers with assurance that labeled products not only save at least 20% more water than standard counterparts, but that they have been third-party verified to perform as well or better than standard counterparts. As the Water Conservation Program Manager for a municipality in a water supply limited community in the West experiencing high population growth, we rely on WaterSense specifications to reduce city-wide water demand through our many rebate and incentive programs that we offer to water customers. Without WaterSense products and specifications, our utility would be forced to look for new costly water supplies requiring expensive infrastructure upgrades sooner. We rely on WaterSense to support our water demand management program and our customers value the performance of WaterSense labeled products.

Commenter: Anonymous
Affiliation: Pluvial Solutions
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0088

Comment Text:

Docket ID No. EPA-HQ-OW-2020-0026
After working in the water conservation business for almost 15 years, I have seen how fixtures have performed at these minimun requirements and better. The standards have been met by most manufacturers and fixtures perform even better than they did 15 years ago. The cost of these fixtures is the same or insignificant to what has been made for years. Georgia passed these requirements in 2010 and implemented in 2012. Other states have as well.

As you should know water is a limited resource and even it is managed properly we will have issues. Many parts of the world do not have enough water or even safe driving water. This can and has happen here. We have seen droughts and this has made us increase standards. Standards should be increased as can when they can.

I have worked several jobs replacing out dated fixtures and we have installed fixtures to these standards and better. As with all types of fixture water and energy more efficient is better when it performs as well as the older ones.

See the attached Case Study showing a class A 1990 office building that used 1.28 gpf toilets and .013 gpf (pint) urinals to upgrade its 3.5 gpf toilets and 1.0 gpf urinals. Everyone was happy with no issues once installation was complete. Project was completed in 2013

Attachment

See pages 170 through 171.

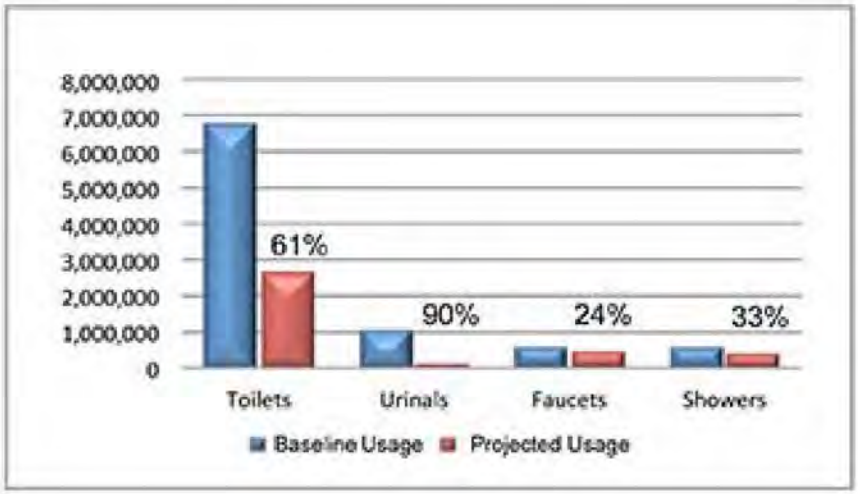
PROJECT PROFILE

Bank of America Plaza

Atlanta, Georgia

As the tallest building in the Southeastern United States and the most iconic property in Atlanta, Bank of America Plaza stands at the pinnacle of the Atlanta skyline and serves as the anchor between Midtown and Downtown. In order to achieve LEED Silver certification and reduce operating costs at the Bank of America Plaza, Water Management, Inc. (WMI) was hired by Parkway Realty Services to provide a comprehensive, innovate and sustainable water savings program.

In Collaboration with Parkway Realty Services and LEED consultant Nancy Larson of Sustainable Options, Water Management, Inc. completed an investment grade water audit in late 2013. The results of the audit showed that over five million gallons of water could be cost effectively saved through restroom fixture upgrades. After gaining ownership approval from CW Capital, Water Management Inc. replaced t he old 3.5 gpf toilets and 1 gpf urinals with high-efficiency TOTO toilets and Zurn 0.125 gpf urinals. To date, a verified indoor water savings of 57% has been realized.



PROJECT DETAILS

Client:
Parkway Realty Services

Project Cost:
$275,810

Savings Per Year:
$161,379

Payback:
1.7 Years

Water Savings Per Year:
5,429,214 gallons

Verified Domestic Savings:
57%

LEED Water Efficiency Credits:
7 Points including Regional Priority and Exemplary Performance Credits

Steve Williams
pluvialsolutions@gmail.com
404-234-1358

Bank of America Plaza:
Atlanta Water Efficiency Program

PROJECT DETAILS

Client:
Parkway Realty Services

Project Cost:
$275,810

Savings Per Year:
$161,379

Payback:
1.7 years

Water Savings Per Year:
5,428,214 gallons

Verified Domestic Savings:
57%

LEED Points

WEc2 – Reduce indoor water by **57%** achieving**.**

- 5 points for achieving a 30% reduction
- 1 point for Regional Priority
- 1 point for Exemplary Performance for exceeding 40%.
- **7 points - Maximum Available**

Reading Date	Reading Date	Domestic Gallons Savings	Savings	Average
9/30/11	9/27/13	921,732	61%	
10/31/11	10/25/13	564,096	49%	
11/30/11	11/29/13	759,520	67%	
12/31/11	12/27/13	424,012	50%	57%
		2,669,360		

- Metro Atlanta Chamber of Commerce E-3 Award - Liquid Assets for the Parkway Realty Services Bank of America Plaza – Atlanta 2014
- Atlanta Better Buildings Challenge Outstanding Water Project Award for the Parkway Realty Services Bank of America Plaza – Atlanta 2014, 2015,2016
- USGBC LEED Silver v2009 – 2015
- EBIE Award USGBC -2016 Water Efficiency in Existing Buildings
- USGBC – GA Chrysalis Award – 2019

Commenter: Gabe Maser, Vice President, Governmental Relations
Affiliation: International Code Council (ICC)
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0089

Comment Text:

See attached file(s)

Attachment

See pages 173 through 175.

International Code Council
500 New Jersey Avenue, NW
Sixth Floor
Washington, DC 20001
t: 888.ICC.SAFE (422.7233)
t: 202.370.1800
f: 202.783.2348
www.iccsafe.org

July 24, 2020

Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Via regulations.gov

Re: Comments of the International Code Council in Response to the Environmental Protection Agency's (EPA) Notice of Recent Specifications Review and Request for Information on the WaterSense Program, Docket Number EPA-HQ-OW-2020-0026

The International Code Council (ICC) is nonprofit organization, driven by the engagement of its more than 64,000 members, that is dedicated to helping communities and the building industry provide safe, resilient, and sustainable construction through the development and use of model codes (I-Codes) and standards used in design, construction, and compliance processes. Most U.S. states and communities, federal agencies, and many global markets choose the I-Codes to set the standards for regulating construction and major renovations, plumbing and sanitation, fire prevention, and energy conservation in the built environment. The Code Council appreciates the opportunity to submit the following comments in response to EPA's notice of recent specifications review and request for information (RFI) in the above-named matter.

The I-Codes are widely utilized and supported at the federal, state, and local levels. All 50 states use the International Building Code (IBC) as the basis for commercial and multifamily housing construction and safety regulation. The IBC references the International Plumbing Code (IPC), which is adopted or in use in 37 states. The International Residential Code (IRC) is adopted or in use in 49 states. The IRC addresses all components, including plumbing, of a house or townhouse less than four stories tall. The IPC and IRC incorporate all the minimum prescriptive regulations pertaining to plumbing system installations. This includes water flow (and pressure) specifications along with faucet and fixture design, performance, and operation criteria.

The 2018 International Green Construction Code (IgCC), a collaboration between the Code Council, the American Society of Heating, Refrigerating and Air-Conditioning Engineers, and the U.S. Green Building Council, establishes maximum plumbing fixture consumption rates consistent with WaterSense specifications for water closets, urinals, residential lavatory sink faucets, and residential showerheads. The IgCC is in use in 16 states and the District of Columbia. The Code Council also partners with the American Society of Agricultural and Biological Engineers (ASABE) to publish the ASABE/ICC 802-2014 Landscape Irrigation Sprinkler and Emitter Standard, which ensures adequate safety and performance of landscape irrigation systems, and which also establishes testing methods that EPA's WaterSense program utilizes to quantify product performance for pressure-reducing sprinkler bodies. The General

International Code Council
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www.iccsafe.org

Services Administration (GSA) requires the IRC, IPC, and IgCC for all civilian governmental buildings[1] and the Department of Defense (DOD) requires the IRC and IPC for all U.S. military bases.[2]

ICC's Evaluation Services' (ICC-ES) licensed engineers conduct evaluations of products, components, methods, and materials including a host of plumbing products. ICC-ES also certifies whether products conform to required or voluntary standards. The evaluation process culminates with the issuance of technical reports that manufacturers use to help determine code compliance and regulators use to enforce building regulations. ICC-ES is a licensed WaterSense certifying body. In addition to ICC-ES's services, ICC's International Accreditation Service (IAS) is an approved accreditation body under the WaterSense program that EPA has authorized to provide accreditation services for WaterSense certifying bodies.

The International Code Council (ICC) and ICC Evaluation Services (ICC-ES), applaud EPA for all it has done to lead water savings efforts for more than a decade. The ICC Family of Solutions has, and always will, support the EPA WaterSense program.

I. Customer Satisfaction and WaterSense

The Code Council supports the continued success of the WaterSense program and fully understands the importance of end-user customer satisfaction. Therefore, it is our belief that EPA should look to the WaterSense program's market outcomes to inform its understanding of customer satisfaction. According to EPA data from 2019, since its inception in 2006, the WaterSense public-private partnership has helped save a cumulative 4.4 trillion gallons of water and more than $87 billion in water and energy bills.[3] These accomplishments are all the more remarkable given the program was not formally authorized until 2018, and has historically received limited federal investment. For example, in 2017, EPA's Office of Inspector General found that consumers saved $1,100 for every federal dollar invested in the program.[4] The program's success is a striking indicator of customers' satisfaction with WaterSense products.

EPA can have confidence in the performance of WaterSense products because, per the RFI "WaterSense has included strong performance requirements in its specifications and used independent organizations to certify that labelled products meet the EPA criteria." EPA ensures the performance of WaterSense products through certifying bodies, like ICC-ES. In certifying that a product conforms to WaterSense's product specifications, ICC-ES not only ensures the specification's water efficiency criteria are satisfied, it also ensures that the specification's performance criteria are satisfied.

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[1] General Services Administration, *Facilities Standards for Public Buildings Service ("GSA P-100")* (July 2018).
[2] Department of Defense, *Unified Facilities Criteria, DoD Building Code (General Building Requirements)* (Oct. 2019).
[3] EPA, *WaterSense Accomplishments 2019*, (June 2020).
[4] EPA, Office of Inspector General, *EPA's Voluntary WaterSense Program Demonstrated Success*, Report No. 17-P-0352 (Aug. 1, 2017).

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WaterSense performance criteria rely on the same standards that base plumbing codes require for products that do not carry the WaterSense label.[5] For example, although WaterSense requires water closets adhere to a maximum flush volume of 1.28 gallons versus 1.6 gallons for the IRC and IPC, both the IPC/IRC and WaterSense require adherence to the same hydraulic performance requirements (ASME A112.19.2/CSA B45.1).

EPA should continue to rely on the existing process for verifying product performance, which ensures products meet defined metrics through independent testing and verification. Manufactures, at their option, are best and most appropriately positioned to measure customer satisfaction.

II. WaterSense Specifications Review

The Code Council supports EPA's decision to retain current WaterSense specifications for water efficient plumbing products. Although lower flow rates and water consumption values may be technically feasible, additional research is necessary to ensure that doing so would not negatively impact the overall plumbing system's integrity. Per a National Institute of Standards and Technology (NIST) technical note released in May 2020, "[r]esearch is needed to address these gaps in support of water efficiency and water quality goals to ensure the effectiveness of these systems today and in the future."[6]

The Code Council supports sustaining the current WaterSense specifications as written and published.

Thank you for the opportunity to provide comments. If you have any questions concerning ICC's recommendations, please do not hesitate to contact me.

Sincerely,

Gabe Maser
Vice President, Government Relations
International Code Council
Office: 202-370-1800
Email: gmaser@iccsafe.org

[5] In the RFI, the Agency states its interest in "ensur[ing] that our performance criteria review is in fact ensuring that labelled products are meeting the same standards as products on the market before the WaterSense label was adopted." The question should not be whether WaterSense labeled products are meeting the same standards as products on the market prior to 2006, the question should be whether WaterSense labeled products are meeting the same standards as plumbing code-compliant products, that do not have WaterSense labels, today.

[6] NIST, *Measurement Science Research Needs for Premise Plumbing Systems*, Technical Note 2088 (May 2020).

Commenter: Bruce Grimm
Affiliation: General Public
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0090

Comment Text:

RE: Docket EPA-HQ-OW-20200026 FRN 2020-07602

The Environmental Protection Agency has administered the WaterSense program in compliance with Public Law 115-270 Section 4306 of America's Water Infrastructure Act. The program purports to transform the marketplace for products and services that use water while promoting a nationwide ethic of water efficiency to conserve water resources for future generations and proves a reasonable compliance towards relevant legislation and regulations.

To gauge public acceptance of the WaterSense concept, surveys should target those that feel that effects of using WaterSense certified products the most. Non-monetary incentives must rely on the users guilt, health, knowledge, ease of use and community motivations.

An effective series of survey should appeal to users self-interest. It should contain the psychological principal of persuasion because people will perform actions such as taking a survey if many other people have performed this action and it is known. This is always a socially acceptable practice.

The characteristics outlined here should be considered in the design of future studies or reviews regarding WaterSense product performance criteria.

Respectfully submitted,

Bruce Grimm, ARM

Commenter: N/A
Affiliation: Alliance for Water Efficiency (AWE) et al.
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0091

Comment Text:

The Alliance for Water Efficiency submits the attached updated letter, signed by 62 organizations.

Attachment

See pages 178 through 189.

July 24, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

RE: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

Dear Administrator Wheeler:

The Alliance for Water Efficiency (AWE) and the undersigned 62 organizations and businesses write to express our strong support for the WaterSense program at the Environmental Protection Agency (EPA) and to share with you our submitted comments regarding WaterSense. We are filing these comments in response to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published on April 10, 2020 in the Federal Register. Our comments address the recent EPA review of the WaterSense program, the EPA's

decision not to revise any of the WaterSense product specifications, and the specific questions asked within the Federal Register Notice.

Our comments focus on four specific areas of the Request for Information (ROI) in the Federal Register, the details of which are contained in the attached document. Our basic conclusions are as follows:

1. Since its inception in 2006, WaterSense has sought to base its product specifications on measured values of performance that are tested in a laboratory and certified by a third-party certifying organization.
2. Fixture performance has improved since the advent of WaterSense.
3. The Residential End Use Study results for toilet flushing, showering, and faucet use show that over 15 years, as fixtures themselves have become more efficient, customer use of these fixtures has not changed nor has flushing frequency increased.
4. Customer satisfaction criteria do NOT belong in WaterSense product specifications themselves, but there are reasonable uses for customer satisfaction information within WaterSense.
5. Including a vague, non-scientific concept such as customer satisfaction criteria could introduce uncertainty and bias into what has until now been a fair and scientific process for setting WaterSense specifications.
6. Product-specific customer satisfaction research is best left to the marketplace and manufacturers themselves.
7. The scope of customer satisfaction research should be limited to consideration of the WaterSense brand itself and WaterSense partnerships, like the type of customer satisfaction research ENERGY STAR has conducted in the past.
8. Proper uses of customer satisfaction survey results would inform the EPA about Americans' opinion of the WaterSense brand and their experience with WaterSense labeled products in homes and businesses. This information could help EPA guide the direction of the WaterSense brand and program.
9. While we offer no comments on the EPA's decision not to revise any specifications at this time, we nonetheless believe that it is important that specifications move forward and advance over time, based on adequate study and research. WaterSense product specifications should keep up with changing times and technology.

The WaterSense program has been a tremendous success for EPA. Public and private utilities in all 50 states tailor successful water conservation programs around consumer use of WaterSense-labeled products. And because of the nexus between water and energy use, the 4.4 trillion of gallons of water saved by WaterSense since 2006 have resulted in 522.9 billion kilowatt hours of energy that are not used to heat, pump and distribute water. These savings have resulted in a financial benefit to consumers on an average of more than $380 annually and $87 billion total in water, sewer, and energy bills since 2006.

Thank you for doing your utmost to ensure this inexpensive, valuable, and effective program that continues to deliver for the American people.

Sincerely,

The Alliance for Water Efficiency
Chicago, IL

Alameda County Water District
Fremont, CA

American Supply Association
Itasca, IL

American Water
Camden, NJ

American Water Works Association
Denver, CO

AMWUA
Phoenix, AZ

Amy Vickers & Associates
Amherst, MA

Bottom Line Utility Solutions, Inc.
Laguna Hills, CA

C+C, Inc.
Seattle, WA

California Water Efficiency Partnership
Sacramento, CA

City of Ashland
Ashland, OR

City of Bellingham
Bellingham, WA

City of Bend
Bend, OR

City of Big Bear Lake Department of Water
Big Bear Lake, CA

City of Charlottesville
Charlottesville, VA

City of Durham
Durham, NC

City of Flagstaff
Flagstaff, AZ

City of Mesa
Mesa, AZ

City of Sacramento
Sacramento, CA

City of Westminster
Westminster, CO

Coachella Valley Water District
Coachella, CA

Denver Water
Denver, CO

EcoSystems, LLC
Miami, FL

HI Commission on Water Resource Management
Honolulu, HI

IAPMO
Dayton, NJ

Las Vegas Valley Water District
Las Vegas, NV

Mesa Water,
Costa Mesa, CA

Metropolitan North GA Water Planning District
Atlanta, GA

Metropolitan Water District of Southern CA
Los Angeles, CA

Monte Vista Water District
Montclair, CA

Municipal Water District of Orange County
Fountain Valley, CA

National Wildlife Federation
Reston, VA

O'Cain Consulting
Santa Monica, CA

Peter Williams Solutions, LLC
Danville, CA

PHCC—National Association
Falls Church, VA
Rancho Water
Temecula, CA

Regional Water Authority
Citrus Heights, CA

Santa Rosa Water
Santa Rosa, CA

Sacramento Suburban Water District
Sacramento, CA

San Francisco Public Utilities Commission
San Francisco, CA

Scottsdale Water
Scottsdale, AZ

SCV Water
Santa Clarita, CA

Sonoma-Marin Saving Water Partnership
Santa Rosa, CA

Sonoma Water
Santa Rosa, CA

Soquel Creek Water District
Soquel, CA

Southern Nevada Water Authority
Las Vegas, NV

T&S Brass and Bronze Works
Travelers Rest, SC
Tacoma Water
Tacoma, WA

Texas Water Foundation
Austin, TX

Turfgrass Water Conservation Alliance
Albany, OR

Utah State University, Center for Water Efficient Landscaping
Logan, UT

United Association of Plumbers and Pipefitters of the U.S and Canada
Annapolis, MD

Upper San Gabriel Valley Municipal Water District
Monrovia, CA

Utah Water Conservation Forum
Salt Lake City, UT

Valley County Water District
Baldwin Park, CA

Valley Water
San Jose, CA

Water - Use It Wisely
Mesa, AZ

Water Supply Citizens Advisory Committee to MWRA
Belchertown, MA

WaterDM
Boulder, CO

Waterless Co
Vista, CA

WaterNow Alliance
San Francisco, CA

Western Urban Water Coalition
Washington, DC

Detailed Comments

1. Should the EPA include customer satisfaction criteria in the WaterSense product specifications and guidelines?

We believe that customer satisfaction criteria do not belong in WaterSense product specifications themselves, but there are reasonable uses for customer satisfaction information within WaterSense. Proper uses of customer satisfaction survey results would inform the EPA about Americans' opinions of the WaterSense brand and their experience with WaterSense-labeled products in homes and businesses. This information could help EPA guide the direction of the WaterSense brand and program. However, it would not be reasonable or correct for EPA to include customer satisfaction requirements within individual product specifications.

ENERGY STAR hired JD Power and Associates and others to conduct customer satisfaction surveys about products that receive the ENERGY STAR label.[1] All of these surveys were focused on satisfaction with partnerships, utility programs, and the ENERGY STAR brand. These surveys did not cover topics like the wattage of light bulbs, the duration of dishwasher cycles, or any product-specific information. Recent JD Power research answered the question, "Does Energy Star Partnership Increase Customer Satisfaction?"

Similarly, WaterSense could use customer satisfaction surveys conducted by independent organizations to evaluate utility partnerships, brand recognition, and overall satisfaction with WaterSense-labeled products. This information could help guide EPA to improve the WaterSense program and could even provide insight and general direction for product categories like toilets, urinals and smart irrigation controllers.

Customer satisfaction is a comparatively vague concept that cannot be measured in a laboratory in the same way as flush volumes and flow rates can. As shown in Figure 1, customer satisfaction research examines the nexus between customer expectations, perceived quality, and perceived value. Customer satisfaction with a plumbing fixture depends greatly on the

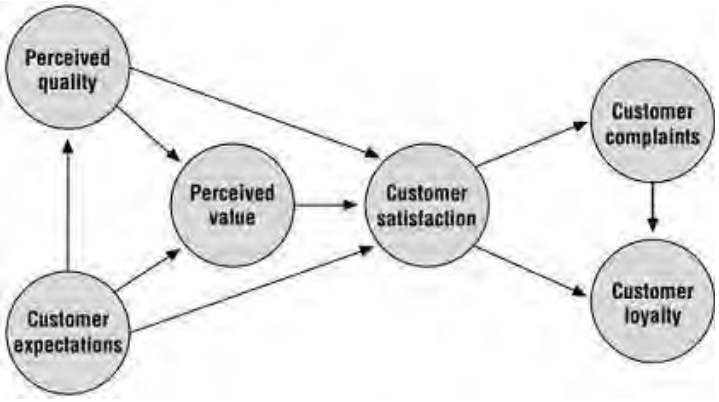


Figure 1: Customer satisfaction research nexus. Source: https://asq.org/quality-resources/customer-satisfaction

[1] https://www.energystar.gov/sites/default/files/asset/document/Schultz_Energy%20Star%20Results_JDPower_2R.pdf
https://www.esource.com/system/files/files/corpcomm_programs-brand.pdf
https://www4.eere.energy.gov/seeaction/system/files/documents/ratepayer_efficiency_customersatisfaction.pdf

quality of manufacturing, the cost of the product, the customers' own expectations, the actual installation of the fixture, the water pressure in the building, and the appearance of the fixture, among other factors. These are all difficult to measure. Including customer satisfaction criteria could introduce uncertainty and bias into what has until now been a fair and scientific process.

Since its inception in 2006, WaterSense has sought to base its product specifications on measured values of performance that are tested in a laboratory and certified by an authorized certification body. These measured values include the volume of water used to flush a toilet, or the maximum flow rate of a showerhead or faucet aerator under specific pressure conditions. These measured test values ensure that products that receive the WaterSense label are tested and are thus capable of meeting established, measurable performance criteria under laboratory conditions. This fundamental adherence to measured performance has provided a level playing field for manufacturers who have produced WaterSense products since 2006. The playing field is level because the measured requirement of each specification is understood by product manufacturers.

Customer satisfaction research is best left to the marketplace and manufacturers themselves. Product manufacturers conduct customer satisfaction research frequently and keep the results to themselves so they can use it strategically to develop their products and brand to competitive advantage. This is truly the proper use of and location for product-specific customer satisfaction research, not with the EPA, but with product manufacturers.

The WaterSense approach of basing specifications on measured values of performance that are tested and certified has had tremendous positive impact on the American economy. Americans can choose from more than 34,000 available models of WaterSense-labeled products for bathrooms, commercial kitchens and irrigation systems. The EPA has estimated that WaterSense-labeled products have saved more than $87 billion on American families' water, sewer, and energy bills. To date more than 2,000 manufacturers, retailers and distributors, water and energy utilities, state and local government, non-profit and trade organizations, irrigation training organizations, and home builders strengthen their businesses through partnerships with WaterSense.

2. How should EPA design studies to inform future reviews that might incorporate customer satisfaction considerations?

Measuring customer satisfaction is a complex task that requires statistical surveying and careful research. It becomes particularly challenging when trying to understand customer satisfaction with a product and to distinguish that from the brand and style and manufacturing of the fixture, the installation of the fixture, the local water pressure, and other factors. The task of measuring customer awareness of and satisfaction with the WaterSense brand as a whole would be quite different than measuring customer satisfaction with specific WaterSense-labeled plumbing fixtures such as toilets or showerheads.

This is not the type of research that can or should be conducted by the EPA itself. To protect WaterSense partners and the integrity of the WaterSense brand, the EPA should rely on the services of professional independent researchers (like JD Power, Edmunds, or KBB) or who specialize in this type of work.

Our recommendation is to limit the scope of customer satisfaction research to consideration of the WaterSense brand itself and WaterSense partnerships, like the type of research ENERGY STAR has conducted. This is much more likely to yield useful information to the EPA. If EPA chooses to conduct customer satisfaction research into specific labeled product categories, it must be designed and conducted by experts with knowledge of both customer satisfaction survey methods and plumbing fixtures.

Superior products will gain market share and it is industry that knows best how to conduct customer satisfaction research. Product category research has been conducted in the marketplace by industry and product manufacturers and distributors who all want this information to make popular products that customers want, to thus gain competitive advantage and market share. Product-specific customer satisfaction research does not need to be and should not be conducted with public funds. Industry may not wish to share the results of the research they have privately conducted, but that is their prerogative. During the WaterSense product specification and review process, information that industry deems relevant can be introduced.

3. **What information, data, surveys, and studies are available that to help assess customer satisfaction with WaterSense-labeled products which could help inform future product specification?**

In 2002, four years before WaterSense was created, all toilets sold in the US were required to comply with ASME Standard A112.19.2, which required testing with media comprised of plastic "granules", nylon balls, sponges and kraft paper. In 2003, in response to water utilities' concerns over the performance of toilets they rebated, engineers John Koeller and Bill Gauley created Maximum Performance Testing (MaP Testing) and began bench-testing toilets using far more realistic test media comprised of dense bean paste. MaP also began publishing testing results on a regular basis so that water utilities could provide toilet fixture performance information to their customers. Manufacturers voluntarily submitted their toilets for MaP Testing so that they could be part of large rebate programs in California, Texas, Georgia, and elsewhere.

By June 2006, when the WaterSense program was introduced, there were already about 500 different tank-type toilet models submitted for MaP Testing, the results of which were released to the public. These toilets could remove an average of 420 grams each (see Figure 2 below). As the WaterSense toilet specification for tank-type toilets was developed, many parties recommended that MaP Testing (or similar testing using realistic test media) be incorporated into the specification and, ultimately, the WaterSense tank-toilet minimum performance specification was set at 350 grams of waste removal using the MaP approach.

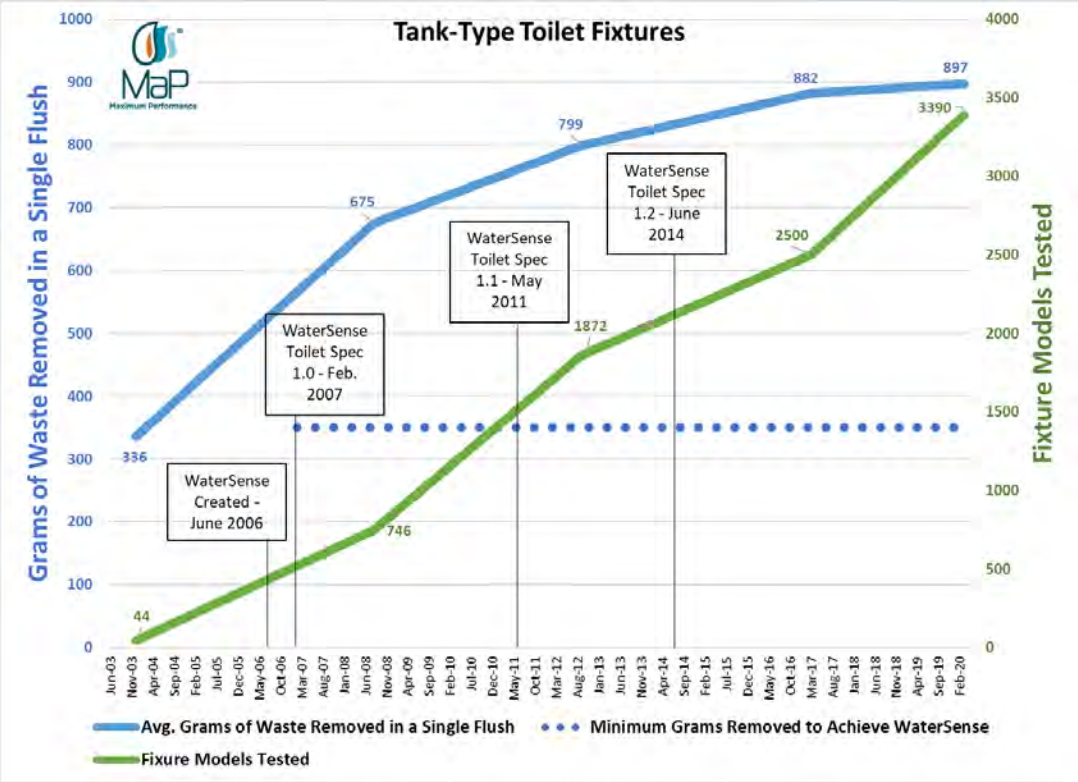


Figure 2: Fixture models tested and average grams of waste removed by tank-type toilets, 2003 – 2020 (Source: MaP Testing)

The WaterSense tank-type toilet specification was released in 2007, and since that time the number of MaP-tested fixture models has gone from 500 to 3,390, and the average flushing performance has improved from 500 grams of waste removed in a single flush to almost 900 grams. To be perfectly clear, 900 grams is nearly two (2) pounds of waste in a single flush, which is over 7 times the median wet weight for daily fecal output by healthy individuals in high income populations (128 grams) and 3.6 times the median wet weight for daily fecal output by healthy individuals in low income populations (250 grams).[2]

The impact of MaP Testing in improving toilet performance has been so significant that it was incorporated into the national product standard (ASME A112.19.2-2013/CSA B45.1-13) in 2013. Figure 2 shows the progression of fixtures tested and the improvement in average flushing performance since the advent of MaP Testing and WaterSense.

American consumers have expressed a high level of satisfaction with WaterSense-labeled products that have been tested through this and other processes. Customers of the Home

[2] The Characterization of Feces and Urine: A Review of the Literature to Inform Advanced Treatment Technology, C. Rose, a A. Parker, a , * B. Jefferson, a and E. Cartmell a – 2015
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4500995/

Depot were so satisfied with WaterSense products that the company chose to sell WaterSense-labeled products exclusively in all of their stores. At competitor Lowe's, the overwhelming majority of eligible product offered for sale carry the WaterSense label. If there were a problem with customer satisfaction, these retail giants would know it and would offer something different. Home Depot and Lowe's both know that the products carrying the WaterSense label perform better than the competition that is not subject to rigorous performance testing.

WaterSense has operated on a very modest budget since 2006, but nonetheless has become remarkably successful and popular. WaterSense manufacturer partners have produced over 4,200 different WaterSense-labeled tank-type toilet models; 9,300 models of WaterSense-labeled showerheads; and 18,000 WaterSense-labeled lavatory faucet and accessory models[3]. American consumers have voiced their satisfaction with their purchases. Industry agrees, and more than 2,000 manufacturers, retailers and distributors, water and energy utilities, state and local government, non-profit and trade organizations, irrigation training organizations, and home builders strengthen their businesses through partnerships with WaterSense.

Based on this success, the popularity of WaterSense is expected to grow. Research from Plumbing Manufacturers International found that within the next 15 years, most bathroom sink faucets and showerheads installed in the United States will be WaterSense-certified or meet the requirements of the WaterSense program. Within the next 30 years, most residential tank-type toilets will also be WaterSense-certified or meet the requirements of the WaterSense program. Within the next 40 years, most flushometer-valve toilets and flushing urinals will be WaterSense-certified or meet the requirements of the WaterSense program.[4]

While not addressing customer satisfaction or WaterSense products directly, the 1999 and 2016 Residential End Uses of Water Studies[5] measured how people use water at home in their daily lives. The studies reveal how frequently people use toilets, faucets, and clothes washers, and to what extent those behaviors have changed over time. This information can be a strong indicator of customer satisfaction. These paired residential end use studies offer the best available measurements of key metrics such as the frequency of toilet flushing, the duration of shower and faucet usage, and the flow rate of these fixtures. This information provides valuable insight about water use patterns and indicates if people are using fixtures the same or more frequently as the flow rates and flush volumes of the fixtures have changed.

The results for toilet flushing, showering, and faucet use show that over 15 years, fixtures themselves have become more efficient, but the use of these fixtures has not changed. The average volume of water used to flush a toilet has decreased, but **the average number of**

[3] Federal Register. April 10, 2020. EPA-HQ-OW-2020-0026 – Request for Information on the WaterSense Program. Vol. 85, No. 70.

[4] IBID

[5] DeOreo, W.B., P. Mayer, J. Kiefer, and B. Dziegielewski. 2016. Residential End Uses of Water, Version 2. Water Research Foundation. Denver, CO.

Mayer, P., W. DeOreo, J. Kiefer, E. Opitz, B. Dziegielewski, and J.O. Nelson. 1999. Residential End Uses of Water. Water Research Foundation, Denver, CO.

flushes per person per day has stayed the same. The average number of minutes spent in the shower has likewise stayed the same. The average faucet use per person per day has also stayed the same. Subsequent analysis on shower patterns using the same Residential End Uses of Water data sets found "on average, people do not compensate for lower flow rates by increasing the duration of their shower and that lower flow rate showerheads do, on average, result in a lower overall shower volume".[6]

WaterSense has also driven performance improvement for showerheads. ASME industry standards for showerheads have been made more rigorous directly as a result of WaterSense with the addition of spray force and spray coverage test requirements taken directly from the WaterSense specifications.

Under section "V. Request for Information on Consumer Satisfaction" of the April 10 Federal Register Notice it states the following (emphasis added):

> "Understanding consumer satisfaction is important to the EPA as the Agency seeks to ensure that our performance criteria review is in fact **ensuring that labeled products are meeting the same standards as products on the market before the WaterSense label was adopted**."

This statement is problematic for several reasons. First, the statement correctly states that products that achieve the WaterSense label are meeting different standards than products that do not receive the label. Both then and now, all plumbing products and fixtures must meet the same set of basic national product standards established by ASME/CSA A112.19.2-2013/CSA B45.1-13 for fixtures and ASME A112.18.1-2018/ CSA B125.1-18 for fittings. Since 2013, however, the requirements contained within the WaterSense specifications for plumbing products have been incorporated into the relevant ASME/CSA standards. As a result, certification to the national product standard can also result in certification to the WaterSense specification if the manufacturer so desires.

Appendix A shows the current standards that all tank-type toilets must meet in 2020 along with a history of these specifications since 2003.

Second, the statement wrongly implies that customer satisfaction for plumbing fixtures was higher before 2006 when the WaterSense label was adopted and that products met a different standard back then. The tremendous success and popularity of WaterSense-labeled products (described above) is due in large part because WaterSense specifications include measurable performance requirements that result in products that work better for consumers than the products they had before. Achieving the WaterSense label requires that products be tested to a higher standard, and this statement wrongly implies that these don't meet the same

[6] Gauley, B. and J. Koeller. 2017. How Showerhead Flow Rates Impact Shower Duration and Volume. www.map-testing.com

minimum basic standards as other fixtures. The confusion evident in this statement in the Federal Register should be corrected.

4. Comments on EPA's recent review of the WaterSense program.

The April 10 Federal Register Notice also included a summary of the review of WaterSense product performance criteria, conducted as required under the authorizing legislation under the America's Water Infrastructure Act (AWIA) of 2018. Based on this review, the EPA made the decision not to revise any specifications.

While we offer no comments on the EPA's decision not to revise any specifications at this time, we nonetheless believe that it is important that specifications move forward and advance over time, based on adequate study and research. WaterSense product specifications should keep up with changing times and technology.

Appendix A – History of Tank-Type Toilet Standards 2003 – 2013

ASME/CSA National Product Standard - Water Closets (toilets) - 2003 to today

	Current Standard		2013 Standard		2008 Standard		2003 Standard	
	ASME A112.19.2-2018/CSA B45.1-18		ASME A112.19.2-2013/CSA B45.1-13		ASME A112.19.2-2008/CSA B45.1-08		ASME A112.19.2-2003	
	Pro-cedure	Requirements	Pro-cedure	Requirements	Pro-cedure	Requirements	Pro-cedure	Requirements
Water consumption	**7.3**	Maximum flush volumes: Low consumption models: 1.6 gal High-Efficiency models: 1.28 gal Dual-flush models-full flush*: 1.6 gal	**7.4**	Maximum flush volumes: Low consumption models: 1.6 gal High-Efficiency models: 1.28 gal	**7.4**	Maximum flush volumes: Water-saving models - 3.5 gpf Low-consumption models: 1.6 gal High-Efficiency models: 1.28 gal	**8.4**	Two thresholds for maximum flush vol.: Water-saving water closets - 3.5 gpf Low-consumption water closets - 1.6 gpf
Granule and ball test	**7.5**	2500 granules in bowl - not more than 125 granules visible after flush. 100 Nylon balls (0.25 in. diameter) in bowl - not more than 5 balls visible after flush	**7.5**	2500 granules in bowl - not more than 125 granules visible after flush. 100 Nylon balls (0.25 in. diameter) in bowl - not more than 5 balls visible after flush	**7.5**	2500 granules in bowl - not more than 125 granules visible after flush. 100 Nylon balls (0.25 in. diameter) in bowl - not more than 5 balls visible after flush	**8.5**	2500 granules in bowl - not more than 125 granules visible after flush. 100 Nylon balls (0.25 in. diameter) in bowl - not more than 5 balls visible after flush
Surface wash test (ink line test)	**7.6**	Ink line around interior circumference of bowl 1 inch below rim - after flushing, remaining line = 2-inch maximum; no segment more than 0.5 inch	**7.6**	Ink line around interior circumference of bowl 1 inch below rim - after flushing, remaining line = 2-inch maximum; no segment more than 0.5 inch	**7.6**	Ink line around interior circumference of bowl 1 inch below rim - after flushing, remaining line = 2-inch maximum; no segment more than 0.5 inch	**8.6**	Ink line around interior circumference of bowl 1 inch below rim - after flushing, remaining line = 2-inch maximum; no segment more than 0.5 inch
Mixed media test	**TEST DELETED IN 2018 >>>>**		**7.7**	20 sponges and 8 kraft paper balls (15 lb. paper) in bowl. After flushing, at least 22 sponges/paper balls fully discharged	**7.7**	20 sponges and 8 kraft paper balls (15 lb. paper) in bowl. After flushing, at least 22 sponges/paper balls fully discharged	**8.7**	20 sponges and 8 kraft paper balls (15 lb. paper) in bowl. After flushing, at least 22 sponges/paper balls fully discharged
Drainline transport	**7.7**	100 polypropylene balls (0.75-in. diameter) in bowl. After flushing, average distance traveled in plastic drainline at least 40 ft.	**7.8**	100 polypropylene balls (0.75-in. diameter) in bowl. After flushing, average distance traveled in plastic drainline at least 40 ft.	**7.8**	100 polypropylene balls (0.75-in. diameter) in bowl. After flushing, average distance traveled in plastic drainline at least 40 ft.	**8.8**	100 polypropylene balls (0.75-in. diameter) in bowl. After flushing, average distance traveled in plastic drainline at least 40 ft.
Waste extraction test (MaP test procedure)	**7.9**	350 gram minimum waste extration	**7.10**	350 gram minimum waste extration	**<<<<< REQUIREMENTS ADDED IN 2013**			
Consistent water level test (non-pilot-type fill valves only)	**7.10**	Maintain tank water level at ± 0.5 inches	**7.11**	Maintain tank water level at ± 0.5 inches				
Fill valve shutoff integrity test with increased water pressure (non-pilot-type fill valves only)	**7.11**	Maintain tank water level at ± 0.5 inches at 20 to 80 psi	**7.12**	Maintain tank water level at ± 0.5 inches at 20 to 80 psi				
Adjustability test for tank-type gravity-fed toilets	**7.12**	Single-flush maximum = 1.68 gal Dual-flush maximum = 2.0 gal (full) and 1.4 gal (reduced)	**7.13**	Single-flush maximum = 1.68 gal Dual-flush maximum = 2.0 gal (full) and 1.4 gal (reduced)				

***-Maximum flush volume of 1.1 gal for the reduced flush is specificed in ASME A112.19.14-2013_R2018, section 3.2.2**

Commenter: Brett Little
Affiliation: GreenHome Institute
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0092

Comment Text:

The WaterSense program is a very helpful program that allows people to easily understand water conservation on new products and landscape installs. This help's them easily save water and money without sacrificing function, comfort, or landscape design beauty Please keep the program going to help keep American's water use down and save money for Americans. This all helps keep our construction and remodeling industry more innovative and competitive. Thank you.

Commenter: Jaclyn S. Toole, Assistant Vice President, Sustainability & Green Building
Affiliation: National Association of Home Builders (NAHB)
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0093

Comment Text:

See attached file(s)

Attachment

See pages 192 through 212.

Sustainability & Green Building
Jaclyn S. Toole
Assistant Vice President
jtoole@nahb.org

July 24, 2020

Mr. Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

(Submitted electronically to https://www.regulations.gov/)

Re: Comments on Docket ID No. EPA-HQ-OW-2020-0026

Dear Administrator Wheeler,

On behalf of more than 140,000 members, the National Association of Home Builders (NAHB) submits these comments to the U.S. Environmental Protection Agency (EPA) on the 'Notice of Recent Specifications Review and Request for Information on WaterSense Program', published in the Federal Register, Vol. 85, No. 70, on April 10, 2020[1].

The EPA has announced the completion of the review of WaterSense product performance criteria as required under the America's Water Infrastructure Act (AWIA) of 2018. The AWIA required the EPA to consider for review and revision, if necessary, specifications which were released prior to 2012. The EPA has completed its review of the five product types released prior to 2012 (flush toilets, lavatory faucets, showerheads, flush urinals, and weather-based irrigation controllers) and made the decision not to revise any specifications.

Additionally, the Notice announced that the EPA is seeking input and requesting information on the following:

1) Information on any data, surveys, or studies that have assessed consumer satisfaction with WaterSense labeled or standard products;

2) Input on how it [EPA] could design a study or studies for use in future reviews that incorporate customer considerations;

3) Input on the collection method, frequency, and source of the information as EPA seeks to balance any burden the collection would impose on the public with the usefulness the information would provide the Agency; and

4) Input on whether there are specific consumer satisfaction considerations, test methods, or additional criteria it should consider adding to the WaterSense Labeled Products guidelines.

[1] https://www.federalregister.gov/documents/2020/04/10/2020-07602/notice-of-recent-specifications-review-and-request-for-information-on-watersense-program

NAHB is a Washington, D.C. based trade association that works to ensure housing is a national priority and that all Americans have access to safe, decent and affordable housing. The federation includes more than 700 state and local associations in all fifty states, the District of Columbia, and Puerto Rico. NAHB's members are involved in home building, remodeling, multifamily construction, land development, property management and light commercial construction. Collectively, NAHB's members construct about 80 percent of all new housing units constructed within the United States each year.

NAHB promotes sustainable and green home building, including water efficient strategies, through the implementation of voluntary, above-code practices, such as certification to the National Green Building Standard (NGBS). WaterSense is a voluntary partnership program sponsored by the EPA which was initially launched in 2006 as an initiative to educate American consumers on making smart water choices that save money and maintain high performance standards. The WaterSense label makes it easier for building professionals and consumers to identify water-efficient products, new homes, and programs that meet the EPA's criteria for efficiency and performance. Builders have confidence when choosing WaterSense labeled products because they have been independently tested and certified to provide water savings and meet established performance criteria. Thousands of products have earned the WaterSense label, providing builders with flexibility in product selection if they are designing and constructing for water efficiency. It is important that builders have choices so they can best meet the needs of their client, the project, and certification programs while also having the confidence that those choices maintain a consistent level of rigor, provide quality output and are cost-effective.

NAHB applauds EPA for conducting a comprehensive specification review that considers factors such as market penetration, adoption in local regulations, performance, potential public health concerns, cost-effectiveness, and available customer satisfaction information. NAHB is providing the following comments in response to EPA's request for input and information:

NAHB Input and Information per EPA Request

EPA Request #1: Data, surveys, or studies that have assessed consumer satisfaction with WaterSense labeled or standard products

NAHB regularly conducts surveys targeting both consumers and builders to assess market trends and perceptions in residential building. Overall trends from NAHB surveys conducted over the past few decades indicate that water efficiency has become increasingly important to homeowners, confirming that consumers value savings achieved through practicing conservation and using efficient fixtures.

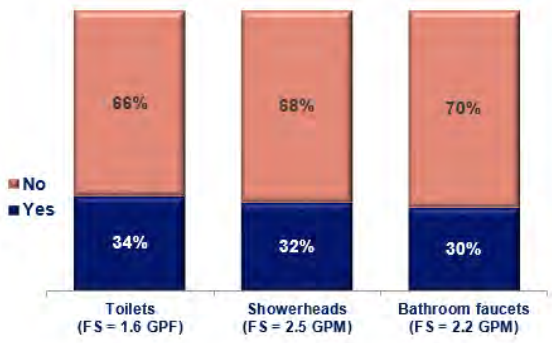
Although consumer satisfaction with WaterSense labeled products has not been a direct ask of either consumers or builders, several survey topics like product attributes and preference, indirectly provide insight into general satisfaction with WaterSense labeled products and the WaterSense program as a whole. Applicable information from relevant surveys is presented below.

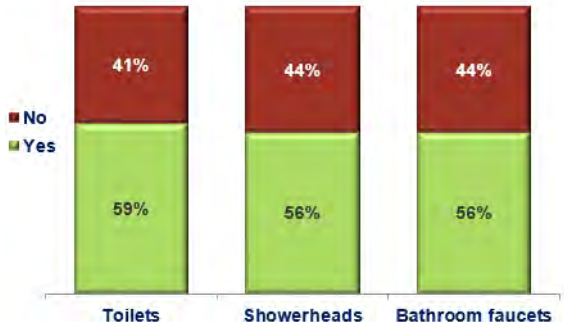
I. NAHB/Wells Fargo HMI Survey – Water Efficient Fixtures - January 2020

For more than 25 years, the National Association of Home Builders (NAHB) has conducted a monthly survey of its builder members that is used to generate the NAHB/Wells Fargo Housing Market Index (HMI). The main section of the HMI survey asks builders to rate market conditions for the sale of

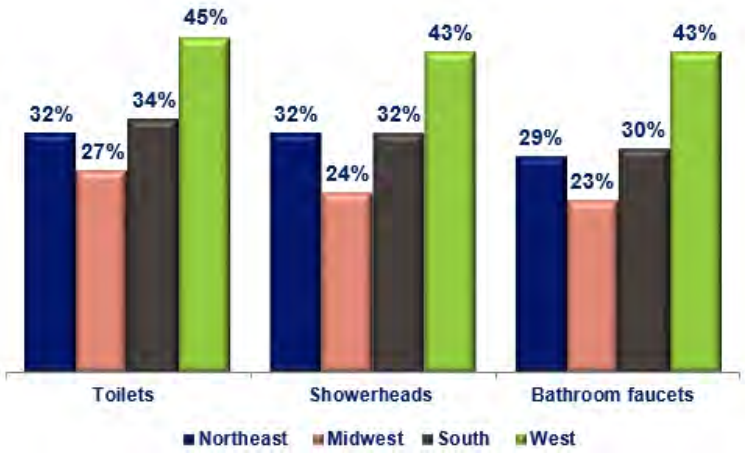
new homes at the present time and expected over the next 6 months, as well as the traffic of prospective buyers. The results are combined into a single composite index that measures the overall strength of the market for new single-family housing. In addition to the questions that provide the data needed to compute the HMI, the survey often also includes a set of targeted questions on a topic of current interest to the housing industry. The January 2020 survey included questions relating to installing plumbing products that are more efficient than federal standards in homes built during the past year. The results are based on 301 responses to these targeted questions. The results are summarized graphically in this section; detailed data tables are contained in Attachment 1.

Builders were asked "Did you install any plumbing products more efficient than the federal standard in homes you built in the past year?" As seen in the bar chart on the left, one-third of the respondents installed toilets, showerheads and bathroom faucets more efficient than the federal standard. The next question was "Were the above-standard plumbing products installed WaterSense labeled?" As seen in the bar chart on the right, builders responded that approximately 60% of those above-standard plumbing products were WaterSense labeled, showing both use of the products and WaterSense brand recognition by builders.





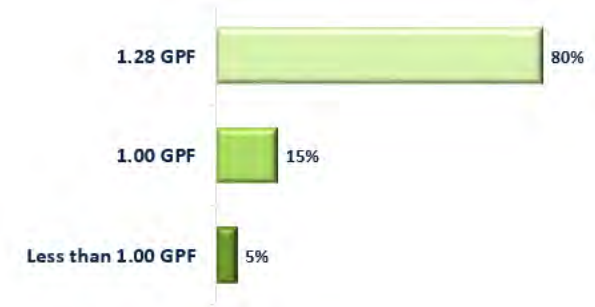
Use of the above-standard plumbing products were most prevalent in the West, followed by the South and Northeast with the Midwest having a somewhat lower implementation rate.



The following three bar charts show the distribution of the flush and flow rates of the above-standard plumbing products installed in 2019 by the respondents.

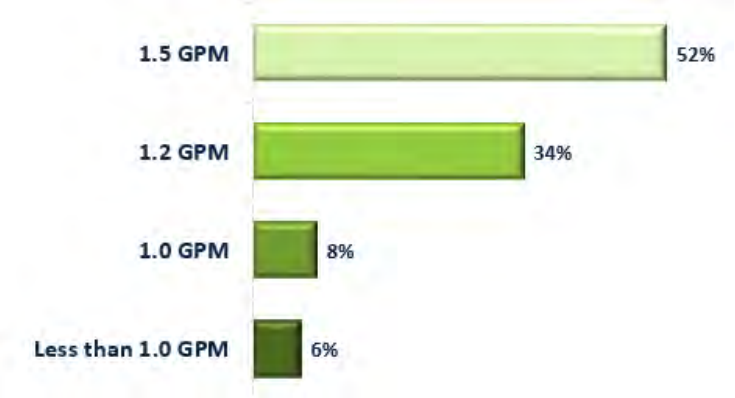
80% of the above-standard toilets were 1.28 gallon per flush (gpf), with 15% 1.00 gpf and only 5% less than 1.00 gpf. WaterSense labeled toilets have a maximum flush rate of 1.28 gpf.

Toilets



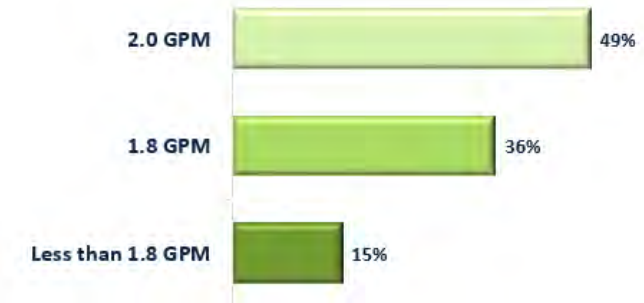
About half of the above-standard bathroom faucets were 1.5 gallon per minute, with one-third at 1.2 gpm and only 8% at 1.0 gpm. WaterSense labeled lavatory faucets have a maximum flow rate of 1.5 gpm.

Bathroom Faucets



Half of the above-standard showerheads were 2.0 gpm with about one-third 1.8 gpm and 15% less than 1.8 gpm. WaterSense labeled showerheads have a maximum flow rate of 2.0 gpm.

Showerheads



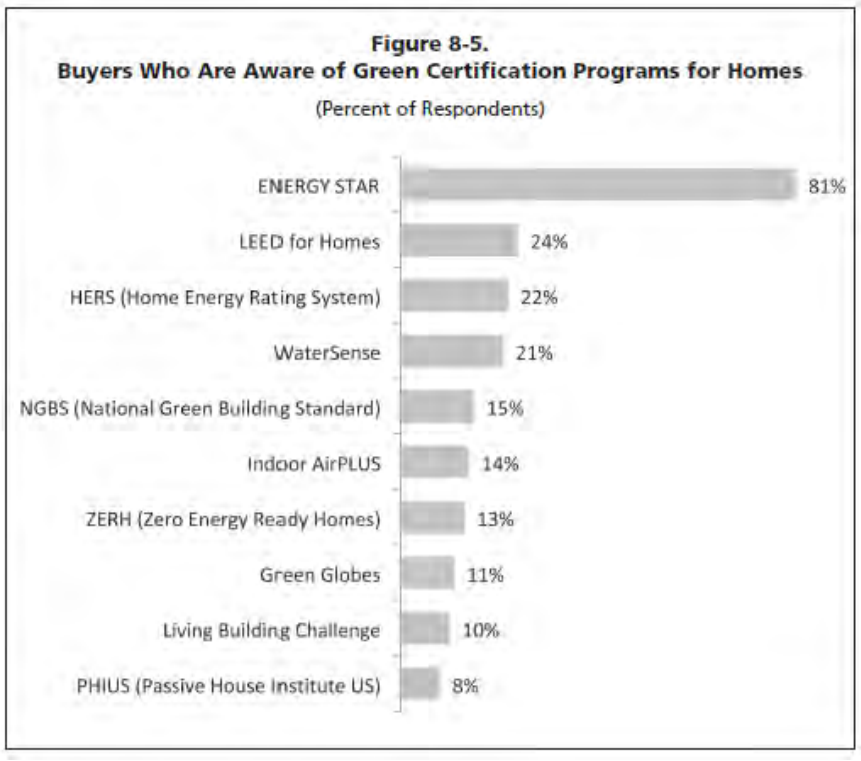
II. SmartMarket Brief - Green Single Family and Multifamily Homes 2020[2]

The National Association of Home Builders, teamed with Dodge Data and Analytics, have been surveying home builders since 2006. The latest survey was conducted in 2019; builders and remodelers of both single-family and multifamily homes were asked about their perceptions on several aspects of the green building industry, including their use of water-conserving plumbing fixtures and faucets (they were not asked specifically if the products were WaterSense certified). 72% of all respondents reported using these products on at least half of their projects, regardless of if they identified themselves as being green builders, indicating water-conserving products are widely used in residential construction.

III. What Home Buyers Really Want, 2019 Edition[3]

Conducted by NAHB, the What Home Buyers Really Want survey, with over 4,000 respondents, asks recent and prospective home buyers a wide range of questions regarding their home preferences to identify what consumer want in a home. The water fixture related responses are summarized here; the applicable data tables from the study are contained in Attachment 1.

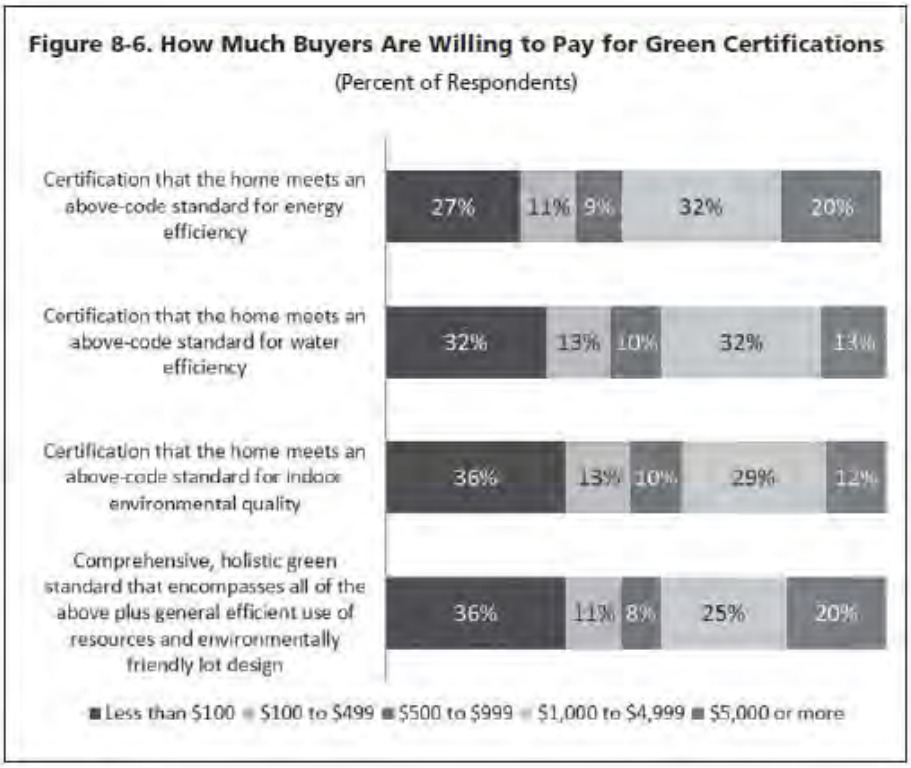
Respondents were asked about their awareness of green certification programs for homes. Between 10% and 24% of respondents were aware of programs that include water efficiency as part of the certification and 21% were aware of the WaterSense program by name. Consumer program brand recognition infers a level of familiarity with these programs, which can contribute to market demand.

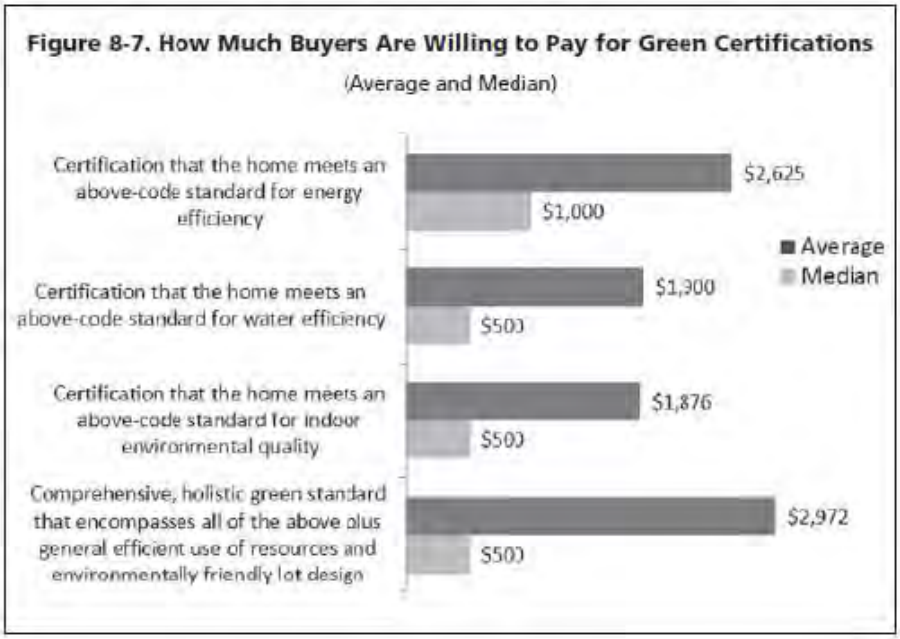


[2] https://www.nahb.org/Advocacy/Industry-Issues/Sustainability-and-Green-Building/Green-Smartmarket-Reports

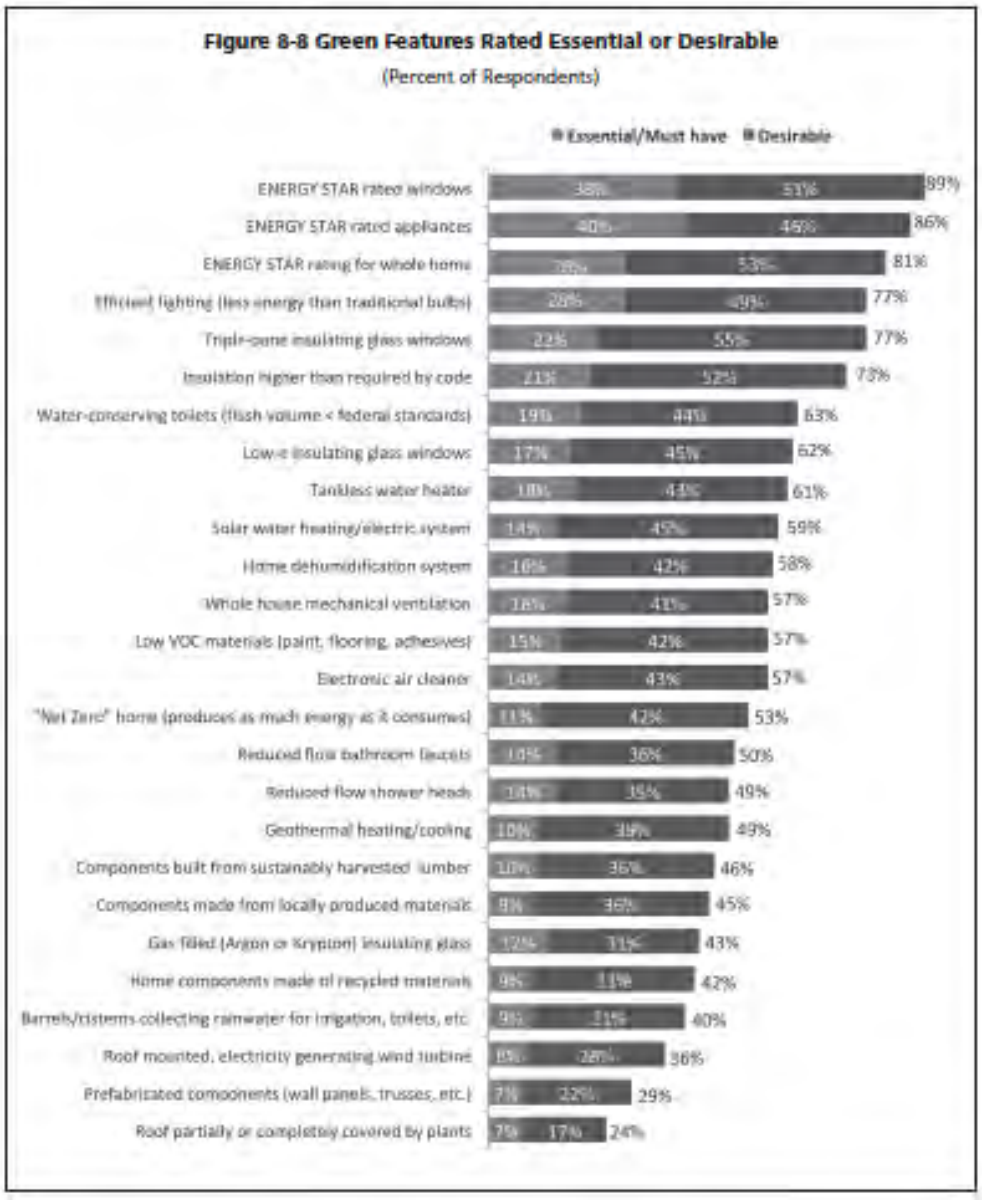
[3] "What Home Buyers Really Want, 2019 Edition", NAHB Economics and Housing Policy Group.

Figure 8-6 from the survey shows 68% of respondents were willing to pay at least $100 and 45% of respondents were willing to pay $1,000 or more for a green certification showing their home met an above-code standard for water efficiency. Figure 8-7 shows the median amount respondents were willing to pay was $500, while the average was $1900.





The survey also captured preferences for many types of green features using a four-tier scale (essential/must have, desirable, indifferent, or "Do Not Want"). The categories are defined in terms of how they influence the home buyer's purchase decision, and while not a direct question, it could be reasonable to infer that the essential/must have and desirable features reflect consumer satisfaction. The top 26 green features rated 'essential' or 'desirable' are shown in Figure 8-8. Water-conserving toilets (flush volume < federal standards) ranked 7th with 19% of respondents saying they are essential and 44% stating they are a desirable feature. Reduced flow bathroom faucets ranked 17th with 14% saying they are essential features in a home and 36% listing them as desirable. Reduced flow showerheads followed at 18th, with 14% saying they are essential features in a home and 35% listing them as desirable. Consumer preference on reduced flow showerheads is quite divided however - 23% of respondents rated them as a 'do not want' feature (only 11% did not want water-conserving toilets and 16% did not want reduced flow bathroom faucets.) A detailed breakdown of results is located in the Q32 table in Attachment 1.



IV. Single-Family Green Practices Survey – 2017[4]

The 2017 Green Practices Survey was conducted by NAHB to gather information on sustainable and high performance building practices being used in single-family home building in 2016. Survey questions were created to capture which green construction methods and strategies were incorporated as standard practice in a typical home built that year.

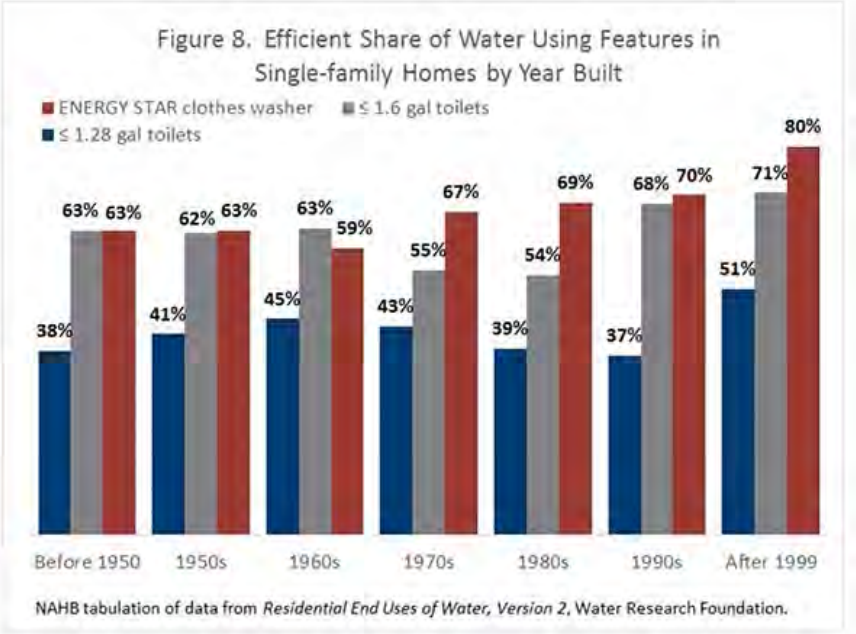
Builders were asked to select the irrigation practices applied in their typical home build from a list of options. Of the 233 responses, 36.5% of builders reported using an irrigation system controlled by an irrigation controller. While not a direct measure of customer satisfaction, this result does illustrate the level of customer demand for this type of product.

Builders were also asked about the types of flush and flow fixtures they installed in their typical homes. Many are using water-conserving products that meet or are even more efficient than the WaterSense certification thresholds. 230 responses were obtained regarding installed showerhead flow rates ; 57.8% reported flow rates of 1.6-1.9 gpm and 23% reported flow rates of less than 1.6 gpm. 222 responses were obtained regarding bathroom faucets; 68.9% were 1.5 gpm or less. 228 responses were obtained for toilet installations – only 17.1% reported typically installing toilets with > 1.28 gpf rate. 47.8% reported using 1.21-1.28 gpf toilets with the rest installing toilets with ≤ 1.2 gpf. The WaterSense Labeled Products program provides value to builders by enabling them to easily identify and select water-saving products that have been certified to performance standards.

V. Residential Ends Uses of Water, Version 2 – 2016

An NAHB analysis of this study[5] showed that in homes built since 1999, 71% have toilets with flow rates of ≤ 1.6 gpf, and 51% of those are ≤ 1.28 gpf (the maximum allowable flush rate for WaterSense labeled toilets). These percentages are higher than for homes built earlier, showing that high-efficiency fixtures, including WaterSense labeled products, are accepted by and popular with consumers and that the voluntary WaterSense Labeled Products program is influencing the residential industry's use of water efficiency strategies.

[4] https://www.nahb.org/Advocacy/Industry-Issues/Sustainability-and-Green-Building/Green-Practices-Survey
[5] Paul Emrath, "Residential Water Use." www.HousingEconomics.com, October 2017, NAHB.



EPA Request #2: Input on designing a study or studies for use in future reviews that incorporate customer considerations and on the collection method, frequency, and source of the information as EPA seeks to balance any burden the collection would impose on the public with the usefulness the information would provide the Agency

It is important to note that the following NAHB response to EPA Request #2 includes suggestions for the Agency to consider should they decide to move forward with collecting customer satisfaction data. Products receiving a WaterSense certification verifying the water efficiency and performance of the product compete on the open market with non-certified high-efficient products and products meeting the minimum Federal standards. Market forces, including builder confidence and customer satisfaction, determine sales and continued production of the preferred products.

If data is to be collected, a study with a relatively small sample of a few thousand without a complex stratification scheme could provide information on customer consideration at a regional or national level. One option to field a survey effectively to obtain this information would be to sponsor the Census Bureau to conduct it, taking advantage of its trained field operatives and established procedures for sampling, following up, etc.

A complication in collecting information from a broad sample of consumers is that most consumers know nothing about flow rates of their plumbing fixtures, or about the details of WaterSense labeled products. However, surveys targeting consumers confirmed to have WaterSense labeled fixtures in their homes may be a more reliable option to obtain information about customer satisfaction with WaterSense labeled water efficient features.

A survey could be provided to homeowners purchasing WaterSense Labeled Homes and/or homes that achieve a water efficiency certification through the administrators of programs such as HERSH20 or WERS,

and/or the administrator of a whole home certification program such as the ICC 700 National Green Building Standard®. (The verifier/rater for the applicable program could easily confirm the presence of WaterSense labeled products.) These homebuyers could be given the opportunity to opt in to a short reoccurring survey that could be conducted annually or semi-annually over a predetermined period of time to measure their satisfaction with WaterSense labeled products.

Conclusion

NAHB supports voluntary, above-code options that encourage water-efficient construction practices in new and existing single-family, multifamily and remodeled homes. WaterSense labeled products provide builders defined guidelines and performance assurance when choosing water fixtures for their projects, increasing the likelihood that their customers will be satisfied with the operation of the fixtures.

NAHB has provided input and information in this comment letter from internal surveys conducted by NAHB over the past few years as well as an analysis by NAHB's economics team of an external study. NAHB has also provided general comments on potential survey ideas as requested by EPA.

NAHB appreciates the opportunity to provide input and information in response to the 'Notice of Recent Specifications Review and Request for Information on WaterSense Program'. Our members support the continued availability of WaterSense labeled products, providing water-efficient choices that perform as well or better than standard products, and their use in voluntary, above-code programs including the National Green Building Standard and the WaterSense Labeled Homes programs. NAHB supports the continued evolution of both the voluntary WaterSense Labeled Products and WaterSense Labeled Homes programs to continue providing avenues for our members to demonstrate their achievements in high performance building, while also setting themselves apart in their local market.

Please contact my colleague Michelle Dusseau Diller, at (202)266-8375 or mdiller@nahb.org if you have any questions regarding this letter. NAHB looks forward to future opportunities to engage with the EPA and WaterSense.

Sincerely,

Jaclyn S. Toole, Assoc. AIA, CGP
Assistant Vice President, Sustainability & Green Building

Q5a. Of the plumbing products listed below, did you install any that were more efficient than the federal standard in homes you built during the past year?

(Percent of Respondents)

	Total	Region				Total No. of Units Started in 2019			
		NE	MW	S	W	5 or Fewer	6 to 24	25 to 99	100+
Toilets (federal standard = 1.6 GPF)									
Yes	34	32	27	34	45	33	36	27	39
No	66	68	73	66	55	67	64	73	61
Responses	300	31	74	146	49	126	91	49	33
Showerheads (federal standard = 2.5 GPM)									
Yes	32	32	24	32	43	31	33	27	36
No	68	68	76	68	57	69	67	73	64
Responses	298	31	74	144	49	125	90	49	33
Bathroom faucets (federal standard = 2.2 GPM)									
Yes	30	29	23	30	43	30	32	24	36
No	70	71	77	70	57	70	68	76	64
Responses	298	31	74	144	49	125	90	49	33

Q5b. Of the plumbing products listed in *question 5a*, were the plumbing products WaterSense labeled?

(Percent of Respondents)

	Total	Region				Total No. of Units Started in 2019			
		NE	MW	S	W	5 or Fewer	6 to 24	25 to 99	100+
Toilets									
Yes	59	45	71	53	68	56	61	71	53
No	41	55	29	47	32	44	39	29	47
Responses	118	11	24	58	25	48	41	14	15
Showerheads									
Yes	56	33	77	47	70	60	53	71	47
No	44	67	23	53	30	40	48	29	53
Responses	112	12	22	55	23	42	40	14	15
Bathroom faucets									
Yes	56	25	75	48	73	56	53	75	47
No	44	75	25	52	27	44	48	25	53
Responses	108	12	20	54	22	41	40	12	15

Q5c. Of the plumbing products listed in *question 5a*,what was the typical standard for the efficient plumbing products you installed?

(Percent of Respondents)

	Total	Region				Total No. of Units Started in 2019			
		NE	MW	S	W	5 or Fewer	6 to 24	25 to 99	100+
Toilets									
1.28 GPF	80	100	65	83	81	85	81	75	64
1.00 GPF	15		20	13	19	10	16	17	27
Less than 1.00 GPF	5		15	4		5	3	8	9
Responses	95	8	20	46	21	41	31	12	11
Showerheads									
2.0 GPM	49	86	50	53	26	55	44	42	55
1.8 GPM	36	14	28	38	47	37	44	33	18
Less than 1.8 GPM	15		22	9	26	8	11	25	27
Responses	89	7	18	45	19	38	27	12	11
Bathroom faucets									
1.5 GPM	52	67	47	63	26	62	46	36	45
1.2 GPM	34	33	29	28	53	30	42	36	27
1.0 GPM	8		6	7	16	3	8	9	27
Less than 1.0 GPM	6		18	2	5	5	4	18	
Responses	85	6	17	43	19	37	26	11	11

Q27. Please indicate how much extra would you pay for a home with a particular green certification, assuming the certification is performed by a credible and independent third party
(Percent of respondents)

	All Home Buyers	Geography (Nine Census Divisions)									Buyer Type	
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	First-time	Repeat
Certification that the home meets an above code standard for energy efficiency												
Less than $100	27	29	27	30	20	30	30	28	23	26	26	28
$100 to $499	11	6	11	12	14	10	15	14	7	9	17	10
$500 to $999	9	6	7	8	11	12	5	8	12	9	9	9
$1,000 to $4,999	32	31	34	34	41	29	28	28	35	32	33	32
$5,000 or more	20	28	21	16	15	18	22	22	23	23	14	21
Mean	$2,625	$3,229	$2,845	$2,154	$3,085	$2,098	$2,525	$2,418	$2,511	$3,603	$2,059	$2,705
Median	$1,000	$1,000	$1,000	$1,000	$1,000	$500	$1,000	$950	$1,000	$1,000	$500	$1,000
Certification that the home meets an above code standard for water efficiency												
Less than $100	32	31	30	32	32	33	33	37	26	29	30	32
$100 to $499	13	6	13	14	13	12	19	14	10	10	16	12
$500 to $999	10	9	9	10	12	13	5	8	13	11	10	10
$1,000 to $4,999	32	34	35	35	34	31	28	29	31	32	33	32
$5,000 or more	13	19	13	9	10	11	15	12	20	18	10	14
Mean	$1,900	$1,929	$2,323	$1,598	$1,433	$1,793	$1,700	$1,532	$2,020	$2,634	$1,728	$1,925
Median	$500	$1,000	$500	$500	$500	$500	$300	$400	$1,000	$1,000	$500	$500
Certification that the home meets an above code standard for indoor environmental quality												
Less than $100	36	36	33	36	30	37	39	38	37	34	32	36
$100 to $499	13	7	12	14	15	12	16	15	10	11	17	12
$500 to $999	10	8	8	10	15	12	6	9	10	13	10	11
$1,000 to $4,999	29	30	31	31	29	29	24	28	29	28	31	29
$5,000 or more	12	19	15	9	11	10	16	10	15	15	11	13
Mean	$1,876	$2,594	$2,403	$1,567	$1,439	$1,573	$2,023	$1,426	$1,677	$2,633	$1,800	$1,887
Median	$500	$500	$500	$300	$500	$500	$200	$250	$500	$500	$500	$500

Q27. Please indicate how much extra would you pay for a home with a particular green certification, assuming the certification is performed by a credible and independent third party
(Percent of respondents)

	Age of Household Head					Generation (year born)				Household Composition			
	Under 35 years old	35 to 44 years old	45 to 54 years old	55 to 64 years old	65 years old or older	Millennials (1980-later)	Gen X (1965-1979)	Boomers (1946-1964)	Seniors (1945 or earlier)	Married couple w children	Married couple no children	Single parent	One person
Certification that the home meets an above code standard for energy efficiency													
Less than $100	23	22	26	32	29	23	24	30	29	26	30	23	27
$100 to $499	21	14	14	8	7	19	14	8	8	12	9	19	11
$500 to $999	12	12	9	10	6	11	10	8	9	11	8	10	8
$1,000 to $4,999	32	33	31	30	34	32	31	33	31	30	35	28	31
$5,000 or more	12	20	20	20	23	15	21	21	23	21	17	20	22
Mean	$2,174	$2,971	$2,782	$2,147	$2,849	$2,456	$2,927	$2,560	$2,368	$2,971	$2,231	$2,235	$2,975
Median	$500	$1,000	$1,000	$1,000	$1,000	$500	$1,000	$1,000	$1,000	$1,000	$1,000	$800	$1,000
Certification that the home meets an above code standard for water efficiency													
Less than $100	24	24	29	34	37	25	28	35	42	28	36	24	34
$100 to $499	22	15	15	9	10	20	14	10	7	13	10	20	13
$500 to $999	12	13	10	13	7	12	12	10	7	12	10	11	9
$1,000 to $4,999	30	31	33	32	33	31	33	32	35	30	34	33	32
$5,000 or more	12	15	13	12	13	13	14	13	8	17	10	12	12
Mean	$2,215	$2,767	$1,781	$1,573	$1,702	$2,522	$1,994	$1,703	$1,316	$2,506	$1,458	$1,599	$1,732
Median	$500	$553	$500	$500	$500	$500	$530	$500	$500	$500	$500	$500	$500
Certification that the home meets an above code standard for indoor environmental quality													
Less than $100	27	23	34	38	42	27	31	40	44	32	40	27	38
$100 to $499	21	15	16	9	8	19	16	9	9	13	10	21	14
$500 to $999	14	11	9	13	8	11	10	10	10	11	10	12	10
$1,000 to $4,999	28	31	27	28	30	30	29	29	26	29	29	29	27
$5,000 or more	10	15	14	12	11	13	15	11	12	15	11	11	11
Mean	$1,905	$2,777	$2,206	$1,385	$1,573	$2,354	$2,338	$1,545	$1,252	$2,485	$1,443	$1,707	$1,795
Median	$500	$503	$500	$500	$300	$500	$530	$500	$250	$500	$500	$500	$250

Q27. Please indicate how much extra would you pay for a home with a particular green certification, assuming the certification is performed by a credible and independent third party
(Percent of respondents)

	Race/Ethnicity				Home Buyers Income Bracket					Price Expect to Pay			
	Cauca-sian	African-American	Hispanic	Asian	Under $50,000	$50,000 to $74,999	$75,000 to $99,999	$100,000 to $149,999	$150,000 or more	Less than $150,000	$150,000 to $249,999	$250,000 to $499,999	$500,000 or more
Certification that the home meets an above code standard for energy efficiency													
Less than $100	29	24	25	16	30	27	21	26	29	31	28	23	28
$100 to $499	9	20	17	10	13	12	12	9	10	15	10	11	7
$500 to $999	9	10	9	9	8	8	8	9	12	8	12	9	9
$1,000 to $4,999	31	33	31	43	32	36	35	33	25	32	32	34	29
$5,000 or more	21	13	19	22	17	17	25	23	23	14	19	23	28
Mean	$2,661	$2,008	$2,766	$2,980	$2,266	$2,332	$3,186	$2,848	$2,919	$1,828	$2,362	$3,121	$3,245
Median	$1,000	$500	$900	$1,000	$500	$1,000	$1,000	$1,000	$600	$500	$1,000	$1,000	$1,000
Certification that the home meets an above code standard for water efficiency													
Less than $100	34	26	28	19	34	30	27	28	36	35	31	29	31
$100 to $499	11	19	16	10	14	14	11	11	11	16	12	12	9
$500 to $999	10	12	10	10	10	8	10	11	12	9	13	10	10
$1,000 to $4,999	32	35	30	40	31	35	33	37	28	30	33	36	30
$5,000 or more	13	8	16	20	11	13	9	13	13	10	12	14	19
Mean	$1,792	$1,615	$2,912	$2,312	$1,490	$1,912	$2,722	$1,942	$1,923	$1,403	$1,534	$2,137	$2,664
Median	$500	$500	$500	$1,000	$500	$500	$1,000	$1,000	$500	$300	$500	$800	$1,000
Certification that the home meets an above code standard for indoor environmental quality													
Less than $100	38	30	30	25	38	35	32	32	39	40	34	33	33
$100 to $499	11	20	17	9	14	15	11	11	10	16	13	12	8
$500 to $999	10	10	8	15	10	7	10	12	13	8	12	11	11
$1,000 to $4,999	28	33	30	33	29	30	31	33	24	27	30	32	27
$5,000 or more	12	8	15	18	9	13	16	13	14	9	11	13	21
Mean	$1,809	$1,492	$2,685	$2,103	$1,459	$1,647	$2,473	$1,723	$2,445	$1,335	$1,516	$2,113	$2,709
Median	$500	$500	$500	$1,000	$250	$500	$500	$500	$500	$200	$500	$500	$559

Q28. Are you aware of any of the following specific green certification programs for homes?
(Percent of respondents)

	All Home Buyers	Geography (Nine Census Divisions)									Buyer Type	
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	First-time	Repeat
Living Building Challenge												
Yes	10	7	16	7	8	9	11	10	7	14	11	10
No	90	93	84	93	92	91	89	90	93	86	89	90
NGBS (National Green Building Standard)												
Yes	15	17	20	12	11	15	15	12	13	18	14	15
No	85	83	80	88	89	85	85	88	87	82	86	85
PHIUS (Passive House Institute US)												
Yes	8	7	13	6	6	7	13	7	4	11	7	9
No	92	93	87	94	94	93	87	93	96	89	93	91
WaterSense												
Yes	21	19	25	16	17	20	18	23	27	26	20	21
No	79	81	75	84	83	80	82	77	73	74	80	79
ZERH (Zero Energy Ready Homes)												
Yes	13	12	17	11	10	10	19	13	11	15	12	13
No	87	88	83	89	90	90	81	87	89	85	88	87
Responses	3,996	163	527	611	227	987	250	388	335	508	895	3,101

Q28. Are you aware of any of the following specific green certification programs for homes?
(Percent of respondents)

	Age of Household Head					Generation (year born)				Household Composition			
	Under 35 years old	35 to 44 years old	45 to 54 years old	55 to 64 years old	65 years old or older	Millenni-als (1980-later)	Gen X (1965-1979)	Boomers (1946-1964)	Seniors (1945 or earlier)	Married couple w children	Married couple no children	Single parent	One person
Living Building Challenge													
Yes	26	24	9	6	2	27	11	4	2	17	4	20	6
No	74	76	91	94	98	73	89	96	98	83	96	80	94
NGBS (National Green Building Standard)													
Yes	28	28	14	12	7	29	17	10	4	22	10	25	11
No	72	72	86	88	93	71	83	90	96	78	90	75	89
PHIUS (Passive House Institute US)													
Yes	23	21	8	3	2	23	11	3		16	3	16	5
No	77	79	92	97	98	77	89	97	100	84	97	84	95
WaterSense													
Yes	35	34	22	17	12	35	25	16	7	28	15	34	17
No	65	66	78	83	88	65	75	84	93	72	85	66	83
ZERH (Zero Energy Ready Homes)													
Yes	26	24	13	8	7	27	15	8	5	18	9	25	10
No	74	76	87	92	93	73	85	92	95	82	91	75	90
Responses	1,558	833	620	583	402	2,014	939	966	77	1,544	883	495	655

Q28. Are you aware of any of the following specific green certification programs for homes?
(Percent of respondents)

	Race/Ethnicity				Home Buyers Income Bracket					Price Expect to Pay			
	Cauca-sian	African-American	Hispanic	Asian	Under $50,000	$50,000 to $74,999	$75,000 to $99,999	$100,000 to $149,999	$150,000 or more	Less than $150,000	$150,000 to $249,999	$250,000 to $499,999	$500,000 or more
Living Building Challenge													
Yes	7	17	24	18	8	9	13	11	12	8	8	11	14
No	93	83	76	82	92	91	87	89	88	92	92	89	86
NGBS (National Green Building Standard)													
Yes	13	19	27	19	11	15	17	16	20	12	13	17	19
No	87	81	73	81	89	85	83	84	80	88	87	83	81
PHIUS (Passive House Institute US)													
Yes	6	13	22	10	7	7	9	9	12	7	7	8	14
No	94	87	78	90	93	93	91	91	88	93	93	92	86
WaterSense													
Yes	18	30	32	29	18	21	22	24	25	17	19	23	29
No	82	70	68	71	82	79	78	76	75	83	81	77	71
ZERH (Zero Energy Ready Homes)													
Yes	10	17	26	18	11	11	14	16	15	11	10	15	17
No	90	83	74	82	89	89	86	84	85	89	90	85	83
Responses	2,530	486	605	209	1,500	832	617	618	329	1,280	900	1,260	438

Q32. How would the following various designs and features influence your purchase decision?
(Percent of respondents)

	All Home Buyers	Geography (Nine Census Divisions)									Buyer Type	
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	First-time	Repeat
GREEN FEATURES												
Tankless water heater												
Do not want	8	7	7	7	8	9	11	7	7	8	11	8
Indifferent	32	30	34	37	47	28	24	26	30	28	35	31
Desirable	43	47	42	41	34	44	41	44	47	44	38	43
Essential/Must Have	18	16	17	14	11	19	24	22	15	21	15	18
Solar water heating/electric sys.												
Do not want	11	16	10	10	12	11	13	14	9	5	11	10
Indifferent	31	29	30	39	33	29	32	33	25	27	32	31
Desirable	45	44	47	41	44	45	40	39	56	48	43	45
Essential/Must Have	14	11	13	10	10	15	15	15	10	20	14	13
Geothermal heating/cooling												
Do not want	12	13	8	10	13	13	14	15	10	11	10	12
Indifferent	40	43	38	41	45	39	32	38	42	40	40	39
Desirable	39	36	42	40	38	38	40	36	40	37	39	39
Essential/Must Have	10	8	12	9	4	10	14	10	9	12	11	10
Roof mounted, electricity generating wind turbine												
Do not want	28	31	24	30	31	27	28	28	31	22	22	28
Indifferent	36	36	34	38	36	35	34	36	36	36	36	36
Desirable	28	21	32	23	30	29	27	28	26	32	31	28
Essential/Must Have	8	12	9	8	3	8	11	8	6	10	11	8
Net Zero home (produces as much energy from renewable sources as it consumes												
Do not want	9	11	8	10	8	11	11	11	4	6	11	9
Indifferent	38	34	37	42	43	35	39	37	35	38	37	38
Desirable	42	43	40	39	40	44	38	39	50	46	39	43
Essential/Must Have	11	12	15	9	9	10	12	13	11	10	12	11
Roof partially or completely covered by plants												
Do not want	50	49	43	48	55	50	56	55	58	46	38	52
Indifferent	27	25	28	33	26	26	23	20	25	27	31	26
Desirable	17	19	21	14	17	17	12	17	14	19	24	16
Essential/Must Have	7	8	8	5	3	7	8	9	4	8	7	7
Reduced flow bathroom faucets												
Do not want	16	22	15	16	14	18	20	21	13	11	20	16
Indifferent	33	31	35	37	37	30	38	31	28	34	36	33
Desirable	36	32	34	37	37	37	26	33	47	40	32	37
Essential/Must Have	14	15	15	10	12	15	16	14	12	15	12	14

Q32. How would the following various designs and features influence your purchase decision?
(Percent of respondents)

	Age of Household Head					Generation (year born)				Household Composition			
	Under 35 years old	35 to 44 years old	45 to 54 years old	55 to 64 years old	65 years old or older	Millennials (1980-later)	Gen X (1965-1979)	Boomers (1946-1964)	Seniors (1945 or earlier)	Married couple w children	Married couple no children	Single parent	One person
GREEN FEATURES													
Tankless water heater													
Do not want	9	7	9	7	8	8	9	7	9	7	9	8	8
Indifferent	35	30	35	31	29	33	32	32	20	28	35	34	28
Desirable	38	42	39	44	45	39	41	44	48	43	41	38	46
Essential/Must Have	18	21	17	17	17	20	18	16	22	23	15	19	17
Solar water heating/electric sys.													
Do not want	8	8	11	10	12	8	10	11	16	9	11	9	14
Indifferent	32	30	31	32	31	31	30	31	33	28	36	29	29
Desirable	43	43	44	44	47	42	45	46	44	45	44	40	43
Essential/Must Have	18	19	13	14	10	19	14	12	7	18	9	22	13
Geothermal heating/cooling													
Do not want	9	7	12	10	17	9	11	13	20	8	16	7	14
Indifferent	37	36	41	39	42	38	38	41	38	37	43	35	35
Desirable	37	39	37	43	37	36	39	40	37	39	35	43	42
Essential/Must Have	17	18	10	8	5	18	12	6	5	15	6	15	8
Roof mounted, electricity generating wind turbine													
Do not want	17	17	25	27	38	18	23	33	36	20	35	17	30
Indifferent	35	34	38	36	35	34	37	36	37	33	39	35	35
Desirable	32	32	27	31	23	31	29	27	25	34	22	31	28
Essential/Must Have	16	17	9	6	3	17	11	5	2	13	4	16	7
Net Zero home (produces as much energy from renewable sources as it consumes													
Do not want	9	7	9	9	9	9	8	9	11	7	11	8	10
Indifferent	36	34	39	37	40	35	39	38	39	37	41	33	38
Desirable	39	40	43	43	43	38	42	44	42	39	41	41	43
Essential/Must Have	15	19	9	11	8	18	11	9	8	17	7	18	10
Roof partially or completely covered by plants													
Do not want	25	29	47	51	69	26	43	59	71	37	60	37	55
Indifferent	33	29	30	30	19	31	29	24	24	29	25	26	24
Desirable	28	26	17	15	10	27	20	13	2	22	12	21	17
Essential/Must Have	14	16	7	4	2	17	8	3	3	12	2	15	5
Reduced flow bathroom faucets													
Do not want	12	12	16	17	19	12	15	17	28	13	17	14	20
Indifferent	36	34	39	34	28	35	37	32	29	35	33	36	30
Desirable	35	35	33	36	41	34	34	39	32	35	37	34	37
Essential/Must Have	17	20	12	13	12	19	13	12	12	17	13	16	13

Q32. How would the following various designs and features influence your purchase decision?
(Percent of respondents)

	Race/Ethnicity				Home Buyers Income Brackets					Price Expect to Pay			
	Cauca-sian	African-American	Hispanic	Asian	Under $50,000	$50,000 to $74,999	$75,000 to $99,999	$100,000 to $149,999	$150,000 or more	Less than $150,000	$150,000 to $249,999	$250,000 to $499,999	$500,000 or more
GREEN FEATURES													
Tankless water heater													
Do not want	8	8	6	11	9	10	5	8	6	12	6	7	7
Indifferent	32	30	27	38	32	31	35	29	31	34	34	28	31
Desirable	43	42	41	34	42	43	42	43	43	39	42	46	42
Essential/Must Have	17	21	26	16	17	16	17	20	19	15	18	19	20
Solar water heating/electric sys.													
Do not want	12	9	6	5	13	10	11	8	9	14	10	11	5
Indifferent	33	27	22	28	31	40	29	30	28	34	34	29	28
Desirable	44	46	45	47	43	40	43	53	44	39	44	48	47
Essential/Must Have	11	18	27	21	13	11	17	10	18	12	12	13	19
Geothermal heating/cooling													
Do not want	13	8	7	13	12	11	12	13	12	13	12	12	12
Indifferent	41	37	29	37	38	43	42	36	39	40	42	38	38
Desirable	39	39	40	37	41	37	34	41	39	38	37	40	39
Essential/Must Have	7	16	25	13	9	9	12	10	11	8	9	10	11
Roof mounted, electricity generating wind turbine													
Do not want	31	20	14	17	29	29	25	22	30	28	30	27	25
Indifferent	37	33	29	42	36	37	39	33	33	36	39	35	35
Desirable	27	34	34	31	26	26	27	37	27	27	25	30	31
Essential/Must Have	6	13	22	10	8	8	9	7	10	9	6	8	10
Net Zero home (produces as much energy from renewable sources as it consumes													
Do not want	9	7	8	7	11	9	7	8	8	12	9	8	7
Indifferent	40	32	25	38	37	41	39	36	37	38	42	35	38
Desirable	42	43	43	42	42	39	44	44	42	40	41	45	41
Essential/Must Have	9	18	24	13	11	11	11	12	12	11	9	12	13
Roof partially or completely covered by plants													
Do not want	55	35	29	32	54	50	47	44	48	53	54	48	45
Indifferent	26	30	26	35	27	28	27	29	23	27	29	25	25
Desirable	14	25	26	24	15	16	18	20	19	16	13	19	20
Essential/Must Have	5	10	19	10	5	6	8	8	10	5	4	8	10
Reduced flow bathroom faucets													
Do not want	18	12	11	9	18	18	13	16	14	20	18	15	13
Indifferent	34	34	28	37	34	32	32	33	34	35	34	31	34
Desirable	36	38	36	38	35	38	37	38	37	34	35	40	36
Essential/Must Have	12	16	24	15	13	12	18	14	15	12	13	15	17

Q32. How would the following various designs and features influence your purchase decision?
(Percent of respondents)

	All Home Buyers	Geography (Nine Census Divisions)									Buyer Type	
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	First-time	Repeat
GREEN FEATURES												
Reduced flow shower heads												
Do not want	23	29	21	25	21	22	27	29	20	18	24	23
Indifferent	28	29	33	29	30	27	25	26	27	29	33	28
Desirable	35	31	31	36	36	36	34	29	44	35	30	35
Essential/Must Have	14	11	16	10	13	15	13	16	10	18	13	14
Water-conserving toilets (flush volume below the federal conservation standard)												
Do not want	11	11	12	10	12	10	12	17	7	8	13	10
Indifferent	26	21	25	28	30	24	27	25	24	27	31	25
Desirable	44	50	47	46	44	46	41	35	48	43	39	45
Essential/Must Have	19	18	17	16	15	20	20	23	21	22	16	20
Barrels/cisterns to collect rainwater for irrigation, toilet flushing, etc.												
Do not want	24	22	19	23	29	23	31	26	26	20	23	24
Indifferent	36	39	39	37	31	38	33	35	37	36	35	37
Desirable	31	27	32	32	36	30	23	30	29	34	31	31
Essential/Must Have	9	11	11	8	4	9	13	9	7	11	11	9
Home components made of recycled materials												
Do not want	11	12	13	9	10	13	17	15	8	8	15	11
Indifferent	47	41	43	51	48	47	45	45	52	47	41	48
Desirable	33	36	32	34	38	30	24	31	35	34	31	33
Essential/Must Have	9	11	12	6	4	10	13	9	5	11	13	9
Components made from locally produced materials												
Do not want	8	6	7	5	6	10	10	11	4	8	12	7
Indifferent	47	46	42	49	49	46	48	45	51	46	41	47
Desirable	36	36	38	38	38	36	32	33	39	36	35	37
Essential/Must Have	9	12	13	8	6	9	10	11	6	10	11	9
Components built using certified sustainably harvested lumber												
Do not want	10	10	11	9	8	12	16	12	7	8	15	9
Indifferent	44	42	40	45	47	42	40	44	47	47	40	44
Desirable	36	37	36	40	36	36	33	35	40	35	35	37
Essential/Must Have	10	11	13	6	9	11	10	10	7	10	10	10

Q32. How would the following various designs and features influence your purchase decision?
(Percent of respondents)

	Age of Household Head					Generation (year born)				Household Composition			
	Under 35 years old	35 to 44 years old	45 to 54 years old	55 to 64 years old	65 years old or older	Millenni-als (1980-later)	Gen X (1965-1979)	Boomers (1946-1964)	Seniors (1945 or earlier)	Married couple w children	Married couple no children	Single parent	One person
GREEN FEATURES													
Reduced flow shower heads													
Do not want	18	21	23	24	25	20	23	23	30	18	25	21	28
Indifferent	34	28	35	26	24	32	32	26	24	31	27	30	25
Desirable	31	32	31	37	37	30	33	37	33	34	37	28	33
Essential/Must Have	17	19	11	13	14	19	13	13	12	17	11	21	15
Water-conserving toilets (flush volume below the federal conservation standard)													
Do not want	10	10	12	14	9	10	11	11	10	9	10	14	12
Indifferent	29	28	29	25	22	29	28	24	19	25	24	29	28
Desirable	42	42	41	45	48	40	43	46	45	46	47	38	38
Essential/Must Have	19	21	17	17	21	21	18	18	26	21	19	19	21
Barrels/cisterns to collect rainwater for irrigation, toilet flushing, etc.													
Do not want	15	15	22	24	31	15	21	27	36	18	27	21	28
Indifferent	34	34	37	36	38	34	36	38	35	33	36	35	37
Desirable	35	33	30	33	27	33	31	30	25	33	32	31	27
Essential/Must Have	17	18	10	8	3	19	12	5	4	16	4	13	8
Home components made of recycled materials													
Do not want	11	9	13	12	12	10	12	11	15	10	13	10	11
Indifferent	39	38	47	47	54	38	44	51	48	41	52	45	47
Desirable	33	35	32	35	29	33	34	32	31	35	30	29	34
Essential/Must Have	17	18	9	6	5	19	10	5	6	14	5	17	7
Components made from locally produced materials													
Do not want	10	7	8	6	9	9	8	7	8	6	9	9	8
Indifferent	40	40	49	46	50	39	47	48	56	43	49	38	48
Desirable	33	36	32	40	38	34	34	39	34	36	38	34	37
Essential/Must Have	17	17	11	8	3	19	11	6	2	14	5	19	8
Components built using certified sustainably harvested lumber													
Do not want	10	9	12	10	10	9	12	10	7	8	12	11	9
Indifferent	38	37	45	45	47	37	42	46	52	42	47	38	44
Desirable	35	37	34	36	39	36	35	37	35	35	37	35	38
Essential/Must Have	17	16	10	9	4	17	11	7	6	16	5	16	9

Q32. How would the following various designs and features influence your purchase decision?
(Percent of respondents)

	Race/Ethnicity				Home Buyers Income Bracket					Price Expect to Pay			
	Cauca-sian	African-American	Hispanic	Asian	Under $50,000	$50,000 to $74,999	$75,000 to $99,999	$100,000 to $149,999	$150,000 or more	Less than $150,000	$150,000 to $249,999	$250,000 to $499,999	$500,000 or more
GREEN FEATURES													
Reduced flow shower heads													
Do not want	25	15	18	12	24	24	19	23	21	26	24	21	20
Indifferent	28	29	25	37	29	30	28	24	32	30	27	27	30
Desirable	34	37	32	36	33	35	36	38	32	32	35	37	32
Essential/Must Have	12	19	25	15	14	11	17	15	15	11	14	15	18
Water-conserving toilets (flush volume below the federal conservation standard)													
Do not want	11	11	10	6	11	12	10	10	11	12	9	11	10
Indifferent	26	27	23	34	27	24	24	27	25	28	28	21	28
Desirable	46	37	41	40	41	47	43	43	49	42	42	49	41
Essential/Must Have	18	25	26	20	20	17	23	20	15	18	21	19	21
Barrels/cisterns to collect rainwater for irrigation, toilet flushing, etc.													
Do not want	26	19	13	18	27	25	20	24	19	26	27	23	19
Indifferent	38	34	27	37	37	39	37	30	36	37	36	36	38
Desirable	30	33	38	32	28	28	33	35	34	28	31	32	31
Essential/Must Have	7	13	22	13	8	8	9	11	11	9	6	10	12
Home components made of recycled materials													
Do not want	12	13	9	11	14	14	6	12	7	15	12	9	10
Indifferent	50	37	34	42	45	50	48	41	51	45	51	46	46
Desirable	32	36	37	35	32	29	36	37	29	31	30	35	31
Essential/Must Have	7	13	21	11	9	7	10	10	13	9	6	9	13
Components made from locally produced materials													
Do not want	8	6	9	9	9	7	7	8	6	10	7	5	11
Indifferent	48	43	36	48	47	50	44	41	48	45	53	45	43
Desirable	37	36	35	33	34	37	39	41	34	36	33	40	33
Essential/Must Have	7	15	20	10	10	6	9	10	12	9	7	9	13
Components built using certified sustainably harvested lumber													
Do not want	10	9	10	12	12	9	7	11	10	13	8	9	11
Indifferent	46	38	33	43	44	48	42	40	45	43	50	40	44
Desirable	36	40	36	31	36	34	40	40	32	36	34	41	31
Essential/Must Have	8	14	20	14	8	9	10	9	13	9	8	10	14

Commenter: Clayton Traylor, Vice President
Affiliation: Leading Buildings of America
Comment Date: July 23, 2020
Document ID: EPA-HQ-OW-2020-0026-0094

Comment Text:

Thank you for allowing Leading Builders of America to submit the attached comments related to EPA's RFI on the Watersense program.

Attachment

See pages 214 and 215.

LEADING BUILDERS OF AMERICA
1455 Pennsylvania Ave NW, Suite 400 • Washington, DC 20004
(202) 621-1815 • www.leadingbuildersofamerica.org

July 23, 2020

Stephanie Tanner, Office of Water
Environmental Protection Agency
1200 Pennsylvania Avenue, NW (Mail code 4202M)
Washington, DC 20460

RE: **Docket ID No. EPA-HQ-OW-2020-0026**, regarding gauging consumer satisfaction in the WaterSense program.

Dear Ms. Tanner,

On behalf of Leading Builders of America, I appreciate this opportunity to provide our thoughts on the EPA's request for information related to the WaterSense program, and how to most appropriately gauge consumer satisfaction with WaterSense products.

Leading Builders of America (LBA) is a Washington, DC based trade association representing twenty of the largest public and private homebuilders in the United Sates. LBA's twenty member companies construct nearly 40% of the new homes built annually in the U.S.

In today's competitive homebuilding market, LBA members are continuously focused on meeting and exceeding consumer expectations. These include delivering homes that conserve water and consume less energy. Our builder members find that these concepts are increasingly important to American consumers across the country, and because of that, LBA members work diligently to identify products and construction methods that assist them in providing the best possible product to homebuyers.

LBA members embrace voluntary efficiency and conservation programs like WaterSense and Energy Star because they provide builders with the flexibility to balance efficiency and conservation goals against the need to deliver homes that meet performance expectations, and that are affordable for typical American families. The WaterSense program is particularly valuable in this regard as it takes both a holistic and incremental approach to water conservation.

Our members in the private sector marketplace are always carefully considering the continued use of products such as those in the WaterSense program. We are as a matter of business particularly attuned to consumer interests, needs, and concerns with all home-related products in the marketplace. Additionally, our members maintain business relationships with homebuyers post-closing as we work on final "punch-list" items. This provides us with an ongoing opportunity to ensure that customers are happy with fixtures and other items installed in their homes. Given that experience and direct interaction with consumers, our members continue to be supportive of the Watersense program. We know that the EPA is seeking ways to better gauge consumer satisfaction with these products. LBA believes it would be difficult for the government to take a role that would be any nimbler and more responsive than that which already happens in the residential construction marketplace.

LBA looks forward to working with the U.S. Environmental Protection Agency to build on the success of the current WaterSense program as we continue to lower the operating costs of new homes for American consumers. We hope that EPA will continue to offer its full support for the WaterSense program, and we look forward to being a resource for EPA as you consider the importance and impacts of programs such as this in the future.

Thank you for giving consideration to our views.

Sincerely,

Clayton Traylor
Vice President
Leading Builders of America

Commenter: Dain M. Hansen, Executive Vice President
Affiliation: International Association of Plumbing and Mechanical Officials (IAPMO)
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0095

Comment Text:

See attached file(s)

Attachment

See pages 217 through 220.

INTERNATIONAL ASSOCIATION OF
PLUMBING AND MECHANICAL OFFICIALS

101 Constitution Avenue, NW Suite 825 East
Washington, D.C. 20001

Ph: 202.445.7514
http://www.iapmo.org/GR

July 24, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

Subject: IAPMO's Comments on Docket ID No. EPA-HQ-OW-2020-0026 - Request for Information on the WaterSense® Program

Dear Administrator Wheeler:

On behalf of the International Association of Plumbing and Mechanical Officials (IAPMO), we appreciate the opportunity to provide input on EPA's Request for Information on the WaterSense® Program.

IAPMO is a nearly 100-year old trade association for the plumbing industry. Our members and clients include plumbing and mechanical contractors, inspectors, engineers, code officials, water and energy experts, and manufacturers of plumbing, mechanical, and building products—all of which benefit from the EPA's WaterSense® labelling program.

We are the developer of the Uniform Plumbing Code, the Uniform Mechanical Code, the Uniform Solar Energy Code, the Uniform Swimming Pool, Spa and Hot Tub Code and the Water-Efficiency and Sanitation Standard (WE-Stand), an American National Standard, which provides safe and effective water efficiency provisions for residential and commercial buildings. IAPMO codes and standards are developed employing an ANSI-accredited open consensus development process and are published as American National Standards. IAPMO R&T, a division of IAPMO, is an ANSI-accredited third-party certification agency and the industry-preferred certifier of WaterSense labelled plumbing products in North America.

We'd like to preface our comments by stating that IAPMO fully supports the WaterSense® program. Despite its meager funding levels, the WaterSense® program is a model of a successful public-private sector partnership. Independent research on residential water use and has shown that WaterSense® labelled products are performing well. To date, over 3.4 trillion gallons of valuable potable water have been saved since the introduction of the program in 2006 resulting in over $84 billion in water, sewer and energy bill savings for American consumers. Very few government programs yield such profound benefits to industry, consumers and the environment.

In the development of numerous WaterSense® specifications, IAPMO staff has worked with the technical leaders of the WaterSense plumbing program. We have found the EPA's outreach to stakeholders to be comprehensive, inclusive and fair to all concerns. The EPA is to be commended in their fact-finding process as specifications for the plumbing industry are

considered and updated. We hope that this process will continue without being compromised by non-technical concerns.

Regarding the EPA's request for specific commentary in the Federal register, IAPMO offers the following comments:

1. Should the EPA include customer satisfaction criteria in the WaterSense® specification and guidelines?

IAPMO recommends that such criteria not be included in the program's specifications and guidelines. While such information might provide insights into the user experiences with WaterSense® labeled products, writing satisfaction criteria into the specifications would be problematic. Rather, IAPMO recommends that consumer satisfaction research be conducted by independent, qualified organizations capable of developing surveys that are scientifically developed to eliminate biases.

However, IAPMO recognizes that the best measure of consumer satisfaction is the market place itself. Manufacturers of plumbing products compete every day for American consumer dollars. Products that do not perform to consumer expectations are readily eliminated from the competitive marketplace.

2. How should the EPA design studies to inform future reviews that might incorporate customers satisfaction considerations?

The plumbing industry understands that measuring customer satisfaction, especially as it pertains to plumbing products, is difficult to accurately measure, especially through the use of surveys. User perceptions are shaped by many variables, including brand selection, problems encountered with the installation of the product that are specific to a given installation, conditions particular to the plumbing system or water distribution system (such as supply pressure and water hardness), and appearance.

Importantly, consumer opinions on the use of products that are considered environmentally friendly or "green", have unfortunately become increasingly polarized due to political discussions. These biases are real and will be difficult to overcome when measuring consumer satisfaction. Thus, any studies that seek to inform such reviews would need to take this into account.

3. What information, data, surveys, and studies are available to help assess customer satisfaction with WaterSense® labelled products which could help inform future product specifications?

Due to the difficulties with measuring customer satisfaction, as discussed above, we are not aware of any scientific surveys or studies that were specifically developed to measure customer satisfaction with WaterSense® labelled products. However, a great deal of data exists on the performance of WaterSense® labelled toilets.

The well-established MaP Testing (Maximum Performance Testing) began testing 1.6 gallon per flush toilets (gpf) in 2003, prior to the introduction of the EPA's WaterSense® program, in response to complaints of poor performance on some early 1.6 gpf toilet models. Since then, the market has transitioned to High Efficiency Toilets (HETs) that flush at 1.28 gpf, a 20% reduction from 1.6 gpf models. Today, almost 3400 toilet models have been voluntarily submitted for testing by manufacturers and the published MaP results over the years clearly indicates that performance has continuously improved. Many of today's HETs are capable of flushing over 1000 grams of test media and toilet paper, providing performance that exceeds consumer expectations despite the transition to HETs.

It should also be noted how the WaterSense® program has impacted and advanced industry standards in recent years. Tests that were originally developed through the WaterSense® specification process have been considered and have been incorporated into industry standards. For example, when the WaterSense® specification on water efficient showerheads was developed, two performance tests were included in that specification that investigated spray coverage area and spray force, attributes that directly relate to consumer satisfaction. Both tests were later incorporated into the ASME A112.18.1 / CSA B125.1 industry standard for all showerheads.

The showerhead specification is especially noteworthy as the our nation benefits from both the water and energy related efficiencies that result from the use of WaterSense® labeled showerheads. To provide some perspective on the importance of the water and energy savings, The Alliance for Water Efficiency (AWE) has analyzed the future impact that might result if showerhead flow rates were raised, using data describing the installed base of showerheads in 2011-2012 from the Residential End Uses of Water Study[1] which has documented actual flow rates in the field. Based on projections for new development and for existing home showerhead replacements, AWE estimates that 2.5 gpm showerheads provide 11 billion gallons per year in water savings and 5 trillion Btu per year in energy savings. Ultra-efficient showerheads (<1.6 gpm) provide 19 billion gallons per year in water savings and 9 trillion Btu per year in energy savings. These are significant savings; in ten years the savings for 2.5 gpm showerheads at the federal standard alone accumulate to the equivalent of supplying 1 million homes with water and 670,000 homes with energy. We urge the EPA to continue to support the WaterSense showerhead specification as currently written.

4. Comments on EPA's Recent review of the WaterSense® program.

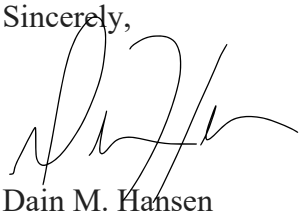
IAPMO supports the EPA's decision to not revise current WaterSense® specifications for water efficient plumbing products. While lower flow rates and water consumption values may be technically achievable, research is required to better understand the resulting impacts on

[1] Residential End Uses of Water Study, 2016 Update. Water Research Foundation.

infrastructure and the relationship between reduced flows and declining water quality, as discussed in NIST's Measurement Science and Research Needs for Premise Plumbing Systems report. IAPMO is equally opposed to any revisions to WaterSense® specifications that would increase flow rates or consumption values. Such changes would harm the WaterSense® program and would add to the proliferation of new regulations that mandate new and varying water efficiency requirements at State and local levels that would result in considerable market confusion.

We thank the EPA for their commitment to water efficiency and their consideration of our recommendations regarding the WaterSense® program.

Sincerely,



Dain M. Hansen
Executive Vice President
The IAPMO Group

Commenter: Eric Olson, Senior Product Manager, and Louis Starr, Energy Codes and Standards Engineer; Megan Geuss, Policy Associate
Affiliation: Northwest Energy Efficiency Alliance (NEEA); Appliance Standard Awareness Project (ASAP)
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0096

Comment Text:

Dear Ms. Tanner,
Northwest Energy Efficiency Alliance (NEEA) and Appliance Awareness Standards Project (ASAP) submit the following comments in response to the Notice of Recent Specifications Review and Request for Information on WaterSense Program.

Thank you,

Attachment

See pages 222 and 223.

July 24th, 2020
Via Electronic Mail

Ms. Stephanie Tanner,
Office of Water (mail code 4204M)
Environmental Protection Agency
1200 Pennsylvania Avenue,
NW, Washington, DC, 20460

Re: NEEA and ASAP WaterSense Specifications Review and Request for Information Comments; Docket Number EPA–HQ–OW–2020–0026, FRL–10007–06–OW

Dear Ms. Tanner,

Northwest Energy Efficiency Alliance (NEEA) and Appliance Awareness Standards Project (ASAP) submit the following comments in response to the Notice of Recent Specifications Review and Request for Information on WaterSense Program.

Comments

NEEA strongly supports EPA's decision to maintain current WaterSense product performance criteria.

The average household with an electric water heater will save 86 kWh (Kilowatt Hour) per year using WaterSense faucets[1] and 330 kWh per year using WaterSense showerheads[2]. These savings provide excellent energy savings while providing the same utility for the customer.

According to a 2014 Government Accountability Report[3], 40 out of 50 state water managers expect water shortages under average conditions in some portion of their states over the next decade. The WaterSense program has effectively alleviated these water shortages. Through the end of 2018, WaterSense has helped Americans save a cumulative 3.4 trillion gallons of water, 462.5 billion kilowatt-hours of electricity, and more than $84.2 billion in water and energy bills[4]. Furthermore, as of 2018, manufacturers had voluntarily developed over 30,000 WaterSense labeled models[4].

NEEA supports EPA on its commitment to consumer satisfaction and encourages EPA to investigate whether more stringent performance criteria, as the most cost-effective path to ensuring high consumer satisfaction with WaterSense products, are warranted.

[1] https://www.epa.gov/watersense/bathroom-faucets
[2] https://www.epa.gov/sites/production/files/2017-01/documents/ws-products-factsheet-showerheads.pdf
[3] http://www.gao.gov/products/GAO-14-430
[4] https://www.epa.gov/sites/production/files/2019-06/documents/ws-aboutus-2018_watersense_accomplishments.pdf

We are supportive of EPA creating the ENERGY STAR and WaterSense trademarks, which consumers have grown to trust as an indication of budget-friendly products of the highest quality. To maintain consumer trust in the WaterSense label, the products in the program must deliver the expected consumer utility. To that end, the WaterSense program has included several performance criteria in its specifications to ensure customer utility. For example, for showerheads, the WaterSense specification assesses not only water efficiency, but also spray force and spray coverage[5].

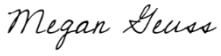
To continue to ensure consumer satisfaction with WaterSense labeled products, we encourage EPA to identify opportunities to make current performance criteria even more representative of field performance. Customer feedback may be a useful component of this discovery process. However, we anticipate that using customer satisfaction panels to routinely assess WaterSense products will be costly and suffer from issues of repeatability, reproducibility and difficulty in quantifying results.

Thank you for considering our comments.

Sincerely,

Eric Olson
SENIOR PRODUCT MANAGER
Northwest Energy Efficiency Alliance
Direct 503.688.5435

Louis Starr, P.E.
Energy Codes and Standards Engineer
Northwest Energy Efficiency Alliance
Direct 503.688.5438



Megan Geuss
Policy Associate
Appliance Standards Awareness Project
818-590-4168
mgeuss@standardsasap.org

[5] https://www.epa.gov/sites/production/files/2018-07/documents/ws-products-specification-showerheads-v1-1.pdf

Commenter: Stan Hazan, Sr. Director, Regulatory Affairs
Affiliation: NSF International
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0097

Comment Text:

See attached file(s)

Attachment

See pages 225 and 226.

NSF International

July 24, 2020

Ms. Stephanie Tanner
Office of Water
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

Re: Docket EPA-HQ-OW-2020-0026-0065

Dear Ms. Tanner:

NSF International (NSF) is an independent, not-for-profit organization founded in 1944 in Ann Arbor, MI that develops consensus national standards, provides product inspection, testing and certification, auditing, education, and related services in public health and safety. The core purpose of NSF is to "protect and improve human and environmental health." NSF has a long history of working with the EPA, FDA, USDA, CDC, and health related governmental entities at the state and local levels, as well as international bodies. NSF is a Collaborating Centre of the World Health Organization for Food Safety, Water Quality, and Indoor Environment.

NSF International is accredited by the Occupational Safety and Health Administration (OSHA), the Standards Council of Canada, the American National Standards Institute (ANSI), and the International Accreditation Service. NSF laboratories worldwide are ISO/IEC 17025 accredited for testing and calibration. Additionally, our Ann Arbor location is an OSHA Nationally Recognized Testing Laboratory.

NSF appreciates the opportunity to provide comments to the EPA request for information on the WaterSense program. As an independent certifying body for the WaterSense program, NSF is accredited to certify bathroom faucets, residential toilets, showerheads and urinals. We strongly support periodic review of the program specifications to ensure product categories are maximizing water efficiency while achieving the same or better performance than non-program models. When reviewing product category specifications, we would encourage the EPA to use sound science and data to inform its decision-making process. Doing so will ensure consumers are able to purchase water efficient models that meet their performance expectations.

The use of independent entities to perform conformity assessment activities related to the WaterSense specifications is consistent with long-standing US government policy outlined in OMB circular No. A-119 and placed in federal law by the National Technology Transfer and Advancement Act. Independent verification provides assurance to the consumer of the products performance. Certifying bodies are accredited in accordance with certifiers in accordance with ISO/IEC 17065, a requirement we encourage be maintained. NSF tests WaterSense product in

ISO 17025 accredited laboratories. The use of these ISO standards sets minimum requirements for the certifying bodies providing consumers the confidence of purchasing product with the WaterSense label.

NSF appreciates the opportunity to make comment on the EPA WaterSense program.

Sincerely,

Stan Hazan

Stan Hazan
Sr. Director, Regulatory Affairs

Commenter: Patrick Eilert, Manager, Codes & Standards; Karen Klepack, Senior Manager, Building Electrification and Codes & Standards; Kate Zeng, ETP/C&S/ZNE Manager, Customer Programs
Affiliation: Pacific Gas and Electric Company; Southern California Edison; San Diego Gas and Electric Company
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0098

Comment Text:

Attached, please find the comment letter from the Pacific Gas and Electric Company, San Diego Gas and Electric, and Southern California Edison in response to the request for information made by the U.S. Environmental Protection Agency for comments on the WaterSense Program.

Attachment

See pages 228 through 231.

July 24, 2020

Stephanie Tanner
Office of Water – 4204M
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC, 20460

Docket ID: EPA-HQ-OW-2020-0026-0001
RIN: Not assigned

Dear Ms. Tanner:

This letter comprises the comments of the Pacific Gas and Electric Company (PG&E), San Diego Gas and Electric (SDG&E), and Southern California Edison (SCE) in response to the United States (U.S.) Environmental Protection Agency (EPA) request for information (RFI) on the *WaterSense*® program.

The signatories of this letter, collectively referred to herein as the California Investor-Owned Utilities (CA IOUs), represent some of the largest utility companies in the Western U.S., serving over 32 million customers. As energy companies, we understand the potential of appliance efficiency standards and voluntary standards to cut costs and reduce consumption while maintaining or increasing consumer utility of products. We have a responsibility to our customers to advocate for standards that accurately reflect the climate and conditions of our respective service areas, so as to maximize these positive effects.

Since its inception in 2006, EPA's *WaterSense* program has remained critical to the preservation of freshwater resources nationwide, particularly in drought-stricken states like California. The *WaterSense* program has saved 3.4 trillion gallons of water nationwide, which has further saved 462.5 billion kilowatt-hours (kWh) of energy[1] nationwide due to the mitigated need to move and heat water. We commend EPA for maintaining the stringency of the existing voluntary *WaterSense* requirements for tank-type toilets, lavatory faucets, showerheads, flushing urinals, and weather-based irrigation controllers. Furthermore, we maintain that the *WaterSense* label remains a mark of quality and environmental stewardship in the market, and we strongly urge EPA to consider the following comments in furtherance of the *WaterSense* mission.

[1] According to EPA, https://www.epa.gov/sites/production/files/2019-06/documents/ws-aboutus-2018_watersense_accomplishments.pdf

1. **The CA IOUs strongly support the *WaterSense* program as a critical tool to help ensure California can mitigate water hardships caused by drought.**

California is one of the world's largest and most prosperous economies, yet the state has faced a water crisis for decades due to prolonged drought. Over 11 million California residents (31 percent of the state population) reside in areas currently affected by drought,[2] and this number increases as drought conditions grow across the state. Demand for water has significant impacts on energy usage in California. For example, moving water from Northern California to Southern California is estimated to use 12,700 kWh per million gallons;[3] as such, the efficient use of water by California ratepayers is of the utmost importance to the CA IOUs.

California has built upon EPA's *WaterSense* specifications to improve water use efficiency. In 2015 California Assembly Bill 723 required the California Energy Commission to consider EPA *WaterSense* standards when setting efficiency levels for plumbing fixtures.[4] More recently, California has set Title 20 Appliance Efficiency Regulations for many of the indoor plumbing products discussed in this RFI. Consequently, as of 2018, showerheads in California are required to have a maximum flow rate of 1.8 gallons per minute (gpm);[5] 60 percent of *WaterSense* labeled showerheads have a maximum flow rate of 1.8 gpm in line with the California regulation.

The CA IOUs view the *WaterSense* program as critical to maintaining water security in California. We urge EPA to continue to support the proliferation of *WaterSense* products in the market. We also encourage EPA to strengthen the efficiency levels and performance requirements of the *WaterSense* specifications for products contained in this RFI in future rulemaking efforts, aligning with existing California regulations.

2. **The CA IOUs note that existing EPA specifications for *WaterSense* products already address consumer satisfaction issues; representative test methods remain the best method to ensure *WaterSense* products perform to consumer expectations.**

The CA IOUs appreciate the importance of consumer satisfaction to help ensure that the *WaterSense* label remains a trusted mark of quality for products in the program. In our experience, *WaterSense* specifications already include cost-effective, quantifiable, repeatable, and reproducible procedures for ensuring that products meet consumer needs, such as the waste extraction methodology outlined in American Society of Mechanical Engineers (ASME) A112.19.2/CSA B45.1 for tank-type toilets.[6] We encourage EPA to continue to support cost-effective, quantifiable, repeatable, and reproducible methodologies that speak to consumer satisfaction beyond the existing specifications.

For indoor plumbing products, the Energy Policy and Conservation Act of 1975 (EPCA), as well as the federal test procedures that determine compliance with EPCA, govern minimum water-use efficiency metrics. Neither the federal standards nor test procedures for these EPCA-regulated products include consumer satisfaction metrics. We encourage EPA to carefully consider the benefits of new criteria beyond what is already defined in EPCA or the associated industry test procedures which will add additional test burden on manufacturers participating in the voluntary program. Over 2,000 organizational partners and 30,000 labeled models demonstrate the importance of the *WaterSense* program in ensuring that the industry can deliver quality water-saving products to the

[2] https://www.drought.gov/drought/states/california
[3] https://fas.org/sgp/crs/misc/R43200.pdf
[4] http://digitalcommons.law.ggu.edu/cgi/viewcontent.cgi?article=1569&context=caldocs_assembly, Page 1
[5] 20 CA ADC § 1605.3 – Table H5
[6] Section 4.0 (Flush Performance Criteria): https://www.epa.gov/sites/production/files/2017-01/documents/ws-products-spec-toilets.pdf

marketplace. Costly, burdensome, and imprecise consumer satisfaction requirements would only serve to limit participation in the program.

From our perspective, existing specifications for the products outlined in this RFI already address many historical consumer satisfaction issues, and we maintain that further improvements to the specifications are the cheapest and most effective way to ensure that only quality products earn the *WaterSense* label. We encourage EPA to work with energy and water efficiency advocates, manufacturers, and other stakeholders to improve the representativeness of specifications for *WaterSense* products where EPA has evidence that products are not performing in practice as claimed.

3. The CA IOUs note that data exist confirming that *WaterSense* products in the marketplace are meeting customer expectations for performance.

To better understand consumer satisfaction with *WaterSense* products, we reviewed Consumer Reports® for product categories that are rated by both programs (e.g., tank-type toilets and showerheads). For over 80 years Consumer Reports has been providing independent ratings of consumer products and currently serves over six million members.

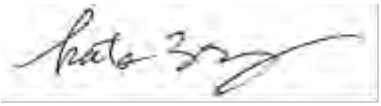
Our analysis confirmed that *WaterSense* products are included in Consumer Reports' list of recommended products for both tank-type toilets and showerheads. For example, of the 46 toilets listed in the Consumer Reports database, 34 (or nearly 74 percent) of the models are *WaterSense* certified products. Note that our analysis likely undercounts the percentage of *WaterSense* certified products in the Consumer Reports database since we anticipate that model numbers in the *WaterSense* database are updated more often than the Consumer Reports reviews. This analysis showed that *WaterSense* labeled products for at least two significant product categories meet rigorous standards for customer satisfaction. Furthermore, this data strongly suggests that *WaterSense*'s approach to ensuring customer satisfaction through representative, cost-effective, repeatable, and reproducible specifications has been successful.

In conclusion, we would like to reiterate our support for EPA's *WaterSense* program and commend EPA on creating specifications that have resulted in critical water savings and high consumer satisfaction for *WaterSense*-labeled products. We do not support the addition of non-repeatable qualitative consumer satisfaction requirements as part of the specifications, as these would create an unnecessary additional burden for manufacturers with limited benefit to consumers. Instead, we encourage EPA to continue to pursue representative specifications that will ensure that products meet consumer needs, so that the program remains attractive to both manufacturers and consumers alike.

Sincerely,

Patrick Eilert
Manager, Codes & Standards
Pacific Gas and Electric Company

Karen Klepack
Senior Manager, Building Electrification and Codes & Standards
Southern California Edison



Kate Zeng
ETP/C&S/ZNE Manager
Customer Programs
San Diego Gas & Electric Company

Commenter: David Hochschild, Chair
Affiliation: California Energy Commission (CEC)
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0099

Comment Text:

See attached file(s)

Attachment

See pages 233 through 238.

CALIFORNIA
ENERGY COMMISSION

July 24, 2020

WaterSense Program
U.S. Environmental Protection Agency
Office of Wastewater Management (4204M)
Attn: Mr. Andrew Wheeler
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
Via Regulations.gov

RE: Notice of recent specifications review and request for information on WaterSense program

Docket number: EPA-HQ-OW-2020-0026

Dear Administrator Wheeler:

The California Energy Commission (CEC) is the primary energy policy and planning agency for the State of California. One of the chief mandates of the CEC is to reduce the inefficient consumption of energy and water by prescribing efficiency standards and other cost-effective measures for appliances whose use requires a significant amount of energy or water statewide. Such standards must be technically feasible and reduce total costs to consumers over the designed life of the appliance. In response to California's driest year in 2014,[1] the CEC is required to adopt performance standards and labeling requirements for landscape irrigation equipment, including emission devices, for reducing the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.[2] The CEC recognizes the importance of working closely with U.S. Environmental Protection Agency's (EPA) WaterSense Program, to promote water efficiency of appliances in homes and businesses.

[1] Based on annual runoff and annual precipitation.
https://ca.water.usgs.gov/california-drought/california-drought-comparisons.html

[2] Water Efficiency: Landscape Irrigation Equipment Act (Assembly Bill 1928, Campos, Chapter 326, Statutes of 2016)

The CEC is committed to helping ensure water conservation remains a California way of life by taking all necessary actions to prepare and respond to drought conditions and acknowledges that the WaterSense program has saved consumers 3.4 trillion gallons of water, more than $84 billion in water and energy bills, and over 460 billion kilowatt-hours of electricity.[3]

The CEC supports EPA reviewing existing WaterSense product specifications for tank-type toilets, flushing urinals, lavatory faucets and accessories, showerheads, and weather-based irrigation controllers for potential improvements to water efficiency and/or product performance as required by the provisions of *The American Water Infrastructure Act (AWIA) of 2018*. Although EPA has determined in this notice not to revise any specifications at this time, should the EPA make the decision to revise any of the WaterSense specifications, we strongly encourage the specifications align or surpass existing California appliance efficiency regulations, which have been demonstrated to be technically feasible, cost-effective, and safe, in order to achieve greater water and energy savings.

The WaterSense label on a product is a symbol to consumers that these products are more efficient than average products available in the market. Data available through California's Modern Appliance Efficiency Database System (MAEDbS) and EPA's WaterSense product database indicate there are many water efficient products that exceed the minimum WaterSense performance requirements, are readily available in the market, and continue to gain traction with consumers. Unfortunately, when the majority of products bear the WaterSense label consumers will not be guided to select the most efficient products and manufacturers will be less inclined to develop and innovate more efficient products. It is therefore appropriate that EPA's WaterSense performance specifications for lavatory faucets, flushing urinals, and showerheads, at minimum, align with California's existing appliance water efficiency standards to be representative of the more water efficient products and be consistent with the water saving goal of the program. The CEC requests that the EPA consider the following to prevent unnecessary and wasteful use of water, while saving consumers money with products readily available in the market:

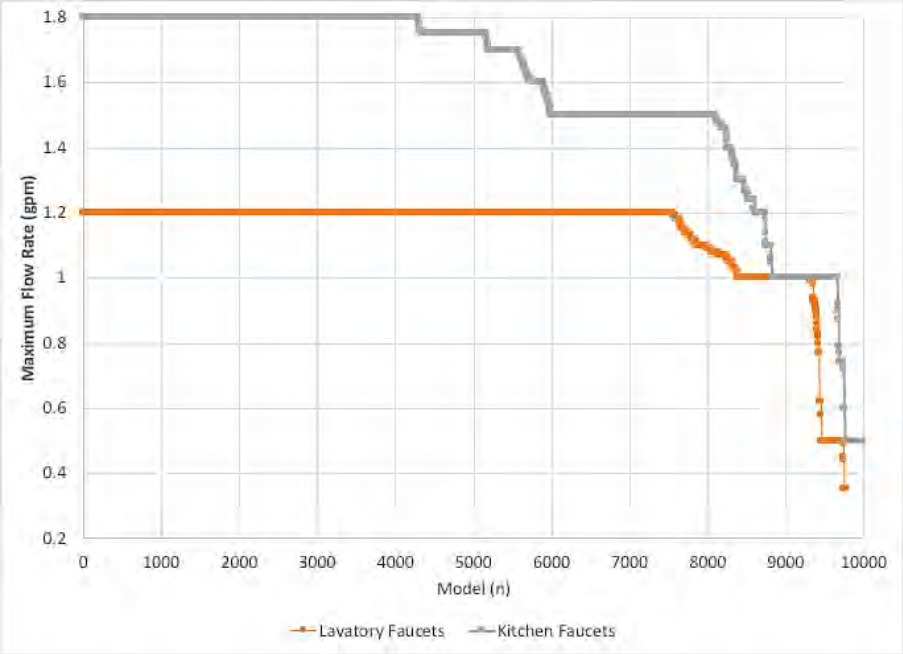
High-Efficiency Lavatory Faucet Specification

The CEC recommends EPA update its current water efficiency requirement of 1.5 gallons per minute (gpm) at 60 pounds per square inch (psi) to a maximum flow rate of 1.2 gpm at 60 psi for lavatory faucets and lavatory faucet accessories to

[3] Cumulative savings through the end of 2018.
https://www.epa.gov/watersense/accomplishments-and-history

provide a consistent standard to manufacturers and achieve the increased savings described above. The CEC also recommends the EPA expand the scope to include kitchen faucets and apply a maximum flow rate of 1.8 gpm at 60 psi to harmonize with California standards. California water efficiency standards are achievable, as evidenced in **Figure 1** which shows more than 9,000 models registered to MAEDbS. The WaterSense product database demonstrates 9,754 lavatory faucet models out of 19,614 models have a maximum flow rate of 1.2 gpm or less.[4]

Figure 1. Number of Registered Lavatory Faucet and Kitchen Faucet Units in MAEDbS:



Specification for Flushing Urinals

The CEC recommends the EPA apply a maximum flush volume of 0.125 gallons per flush (gpf), as required in California for products manufactured on or after January 1, 2016, instead of the current maximum current flow rate of 0.5 gpf. Data available through MAEDbS demonstrates more than 165 wall-mounted urinals are available in the market that meet this standard. There are 726 models recorded in the WaterSense product database and 299 models have a flush volume of 0.125

[4] WaterSense product search as of June 2020. https://lookforwatersense.epa.gov/products/

gpf or less.[5] California's water efficiency standards for urinals are achievable and reasonable. The CEC also encourages the EPA to research and develop performance and quality requirements that exceed current specifications for tank-type toilets.

Specification for Showerheads

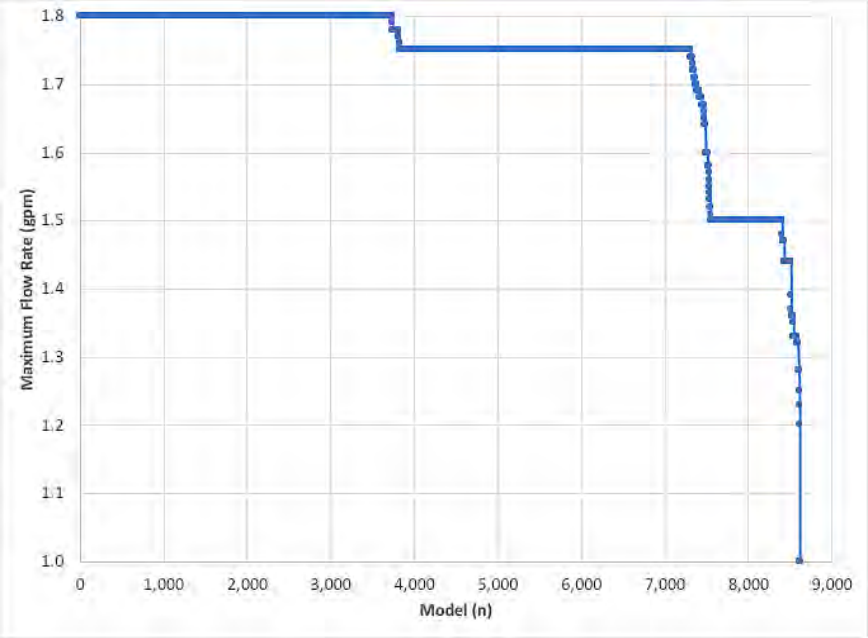
California transitioned from a water efficiency standard of 2.0 gpm at 80 psi, for showerhead products manufactured on or after July 1, 2016, to its current standard of 1.8 gpm at 60 psi for products manufactured on or after July 1, 2018. This standard is estimated to have saved Californians 14 billion gallons of water, 75 million therms of natural gas, and 493 gigawatts-hour (GWh) of electricity per year.[6] The CEC recommends EPA apply a maximum flow rate of 1.8 gpm at 80 psi for showerheads providing an additional opportunity to increase water efficiency. There are more than 8,000 showerhead units registered in MAEDbS (see **Figure 2**). In addition, 6,251 models out of 9,758 models recorded in WaterSense's product database are showerheads that have a maximum flow rate of 1.8 gpm or less.[7]

[5] WaterSense product search as of June 2020. https://lookforwatersense.epa.gov/products/

[6] Steffensen, S. (2015). Staff Analysis of Water Efficiency Standards for Showerheads. CEC-400-2015-027. Sacramento: Californa Energy Commission.

[7] WaterSense product search as of June 2020. https://lookforwatersense.epa.gov/products/

Figure 2. Number of Registered Showerhead Units in MAEDbS:



Data available through the CEC's appliance rulemakings, MAEDbS, and WaterSense databases demonstrate that it is feasible and appropriate for the WaterSense Program to update performance criteria for flushing urinals, showerheads, and lavatory faucets to higher efficiency standards. In addition to being used to monitor compliance, these databases provide useful research data about energy consumption and product characteristics of regulated appliances. This helps in the development of future standards and enables consumers to compare efficiency of products that meet the standards. As the CEC investigates new opportunities for water efficiency, we ask the EPA to align its specifications with California's existing water efficiency standards.

Consumer Satisfaction Data

Regarding the request for information (RFI) on collecting consumer satisfaction data to inform future decisions on WaterSense specifications and program guidelines, the CEC believes that using consumer satisfaction as an evaluation factor in the specification development process is inappropriate. Although consumer satisfaction studies can provide some insight on performance of a product, it is ultimately subjective. In contrast, product performance testing using established methods that are accurate and repeatable ensures quality products and ultimately consumer satisfaction.

The EPA has successfully approved specifications for seven products using current specification guidelines.[8] The program guidelines specify that products shall be evaluated on potential water savings, performance, technical feasibility, and cost-effectiveness. Evaluating the technical feasibility and performance of a product as required by WaterSense's program guidelines, already encompasses criteria that helps ensure consumer satisfaction.

The specification development process is a collaborative, iterative, and transparent process. The WaterSense specifications reference existing, industry-approved national standards as the basis for water efficiency and performance testing methods. In cases where an existing industry-approved standard does not exist or needs improvement to meet WaterSense's program guidelines, the EPA works with standards organizations and industry stakeholders to develop test methods that provide accurate and reproducible results that are representative of real-world applications.

The CEC appreciates the opportunity to provide comments on this RFI related to WaterSense specifications. If there are any questions about these comments, please contact Jessica Lopez at (916) 654-5125 or at Jessica.Lopez@energy.ca.gov

Sincerely,

David Hochschild
Chair
California Energy Commission

cc: Jessica Lopez, Appliances Office
Michael Murza, Office of the Chief Counsel

[8]WaterSense Program Guidelines, version 5.5, May 2020. https://www.epa.gov/sites/production/files/2017-02/documents/ws-program-guidelines.pdf

Commenter: Denise L. Schmidt, Administrator of the Division of Water Utility Regulation and Analysis, and Kristy Nieto, Administrator of the Division of Digital Access, Consumer and Environmental Affairs
Affiliation: Public Service Commission of Wisconsin
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0100

Comment Text:

Comment submitted by Denise L. Schmidt, Administrator of the Division of Water Utility Regulation and Analysis, and Kristy Nieto, Administrator of the Division of Digital Access, Consumer and Environmental Affairs on behalf of the Public Service Commission of Wisconsin.

Attachment

See pages 240 and 241.

Public Service Commission of Wisconsin

Rebecca Cameron Valcq, Chairperson
Ellen Nowak, Commissioner
Tyler Huebner, Commissioner

4822 Madison Yards Way
P.O. Box 7854
Madison, WI 53707-7854

July 24, 2020

Mr. Andrew Wheeler, Administrator
US Environmental Protection Agency

Re: EPA-HW-OW-2020-0026 WaterSense Program

Dear Administrator Wheeler:

Thank you for the opportunity to comment on consumer satisfaction regarding the EPA WaterSense program. The Public Service Commission of Wisconsin (Commission) is the financial and consumer protection regulator for over 570 water utilities in the State. As part of our role, we ensure that water utility conservation and efficiency programs reduce water use, water loss, and energy consumption. Achieving each of those goals provides cost effective outcomes for the utilities and the customers they serve. The WaterSense program has been an indispensable tool for the Commission in helping Wisconsin water utilities achieve resource and financial sustainability goals.

WaterSense provides a tested and trusted source of information for Wisconsin water utilities and their customers. As such, utilities are required to use WaterSense certified products in Commission-approved water efficiency rebate programs. The list of products that meet WaterSense standards streamlines the work of Commission and utility staff and provides an objective, consistent source of information for all stakeholders. Using WaterSense program materials reduces the cost both of approving and implementing conservation and efficiency rebate programs. Utilities throughout Wisconsin rely on the resources and tools available through WaterSense to design their programs and communicate with their customers.

Without the WaterSense program, Commission staff would need to invest time and resources in order to ensure ratepayer funded conservation and efficiency programs deliver in terms of both performance and efficiency. The void of a trusted third party resource would result in costly, unnecessarily duplicative efforts by the Commission, utilities across the state of Wisconsin, and water utilities nationwide.

Water and energy are uniquely linked. Water savings not only protect water supplies and reduce customers' water utility bills, but also reduce the energy required to extract and deliver water to customers, resulting in lower energy utility bills. The Commission has statutory oversight of Focus on Energy, Wisconsin's utility-funded energy efficiency and renewable resource program. Focus on Energy incentivizes the adoption of a variety of energy saving devices and technologies, including devices designed to save customers both water and energy. Focus on Energy offers customers free or discounted WaterSense labeled faucet aerators and showerheads. The WaterSense label provides program participants the assurance that the products will meet

performance expectations and deliver reliable water and energy savings. Year-after-year, Focus on Energy has seen high customer satisfaction with the offerings designed to save customers energy and water.

The Public Service Commission of Wisconsin supports the continued use of the WaterSense label. The Commission appreciates the opportunity to comment in support of the WaterSense program and thanks EPA for the continued efforts to improve the standards of water conservation, efficiency and performance.

Sincerely,

Denise L. Schmidt
Division Administrator
Water Utility Regulation & Analysis

Kristy Nieto
Division Administrator
Digital Access, Consumer & Environmental Affairs

DS:KN:RJP:kle DL:01753450

Commenter: Jennifer L. Jurado, Director and Chief Resilience Officer
Affiliation: Broward County's Environmental Planning and Community Resilience Division
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0101

Comment Text:

Please see attached from Broward County's Environmental Planning and Community Resilience Division

Attachment

See pages 243 and 245.

ENVIRONMENTAL PROTECTION AND GROWTH MANAGEMENT DEPARTMENT
ENVIRONMENTAL PLANNING AND COMMUNITY RESILIENCE DIVISION
115 S. Andrews Avenue, Room 329H • Fort Lauderdale, Florida 33301 • 954-519-1270 • FAX 954-519-1496

July 24, 2020

Environmental Protection Agency
1300 Pennsylvania Avenue
Washington, D.C. 20004
Attn: Andrew Wheeler

Subject: Comments on Docket ID No. EPA-HQ-OW-2020-0026 Request for Information on the WaterSense® Program

Dear Administrator Wheeler:

On behalf of Broward County's Environmental Planning and Community Resilience Division, I am writing to express our strong support for the Environmental Protection Agency's (EPA) WaterSense® Program, in response to the Notice of Recent Specifications Review and Request for Information. Thank you for the opportunity to comment on this essential program.

The WaterSense® Program has provided the platform to save trillions of gallons of water and billions of kilowatt hours of energy. The Program's products have resulted in exceptional performance, savings on water bills, and the opportunity to delay investments in alternative water supplies. The program provides tangible savings for residents and businesses and has a demonstrated track record of success. Therefore, we take the stance that the specifications should not include customer satisfaction criteria without first conducting adequate research and analyses. The program, as it currently operates, has been successful in conducting third party testing and providing a service to the public. Moreover, in a recently conducted survey in Broward County, almost 80% of people responded that they are "very satisfied" or "satisfied" with their high efficiency toilet.

Broward County has multiple water conservation programs that rely on WaterSense® specifications and branding. Below you will find some accomplishments:

- We use the WaterSense® specifications for recommendations for local residential and commercial properties.
- Since 2011, the Broward Water Partnership, a joint partnership between the County and several local municipalities and utilities, has saved over 2.5 billion gallons of through the distribution of WaterSense® labeled showerheads and aerators and providing toilet rebates.
- Based on an informal survey conducted to Broward County residents, over 80% are either satisfied or highly satisfied with their WaterSense® labeled toilet(s).

- One of our water conservation programs, the Broward County NatureScape Irrigation Services program has been able to provide rebates to successfully install over 70 WaterSense® labeled controllers and sprinklers in a new program that is less than 1 year old.

Due to the local, regional, and national success of the WaterSense® program, Broward County's Environmental Planning and Community Resilience Division believes that customer satisfaction criteria do not belong in WaterSense® product specifications themselves. Instead, we recommend that further revisions to any specifications center on adequate study, research, and a focus on future needs.

Thank you for doing your utmost to ensure that this inexpensive, valuable, and effective program continues to deliver.

BROWARD COUNTY FLORIDA

JENNIFER L. JURADO, PH.D., DIRECTOR and CHIEF RESILIENCE OFFICER
Environmental Protection and Growth Management Department
ENVIRONMENTAL PLANNING AND COMMUNITY RESILIENCE DIVISION
115 S Andrews Ave, Room 329-H | Fort Lauderdale, Florida 33301
954.519.1464 (o) 954.520.1086 (c)

Commenter: Kerry Stackpole, Chief Executive Officer (CEO) and Executive Director
Affiliation: Plumbing Manufacturers International (PMI)
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0102

Comment Text:

Please find attached Plumbing Manufacturers International comments in regards to EPA's Request for Information (RFI) on the WaterSense Program.

Attachment

See pages 246 and 250.

July 24, 2020

The Honorable Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, N.W.
Washington, D.C. 20460

Subject: Request for Information on the EPA WaterSense Program – Consumer Satisfaction [Docket No. EPA-HQ-OW-2020-0026]

Dear Administrator Wheeler:

On behalf of Plumbing Manufacturers International (PMI), we appreciate the opportunity to submit comments concerning the Environmental Protection Agency's (EPA) Request for Information on the agency's WaterSense program published in the Federal Register on April 10, 2020 (FR Vol. 85, No. 70, page 20268).

The agency is specifically requesting comments on:1) data, surveys, or studies to help assess consumer satisfaction with WaterSense-labeled products, which could inform future product specification development; 2) input on how to design a study or studies to inform future reviews that incorporate customer satisfaction considerations; and, 3) advice on whether the agency should include consumer satisfaction criteria in the WaterSense program guidelines and, if included, what criteria should be considered and how.

PMI and its members have been proud supporters of the WaterSense program since its inception in 2006. A true public-private partnership, WaterSense is a voluntary product efficiency labeling program that identifies efficient and high-performing water-saving products. It has resulted in strong consumer and industry confidence in and reliance on, as well as broad stakeholder support for, WaterSense-labeled products.

Sales of WaterSense products and the number of WaterSense-labeled products have continued to increase year after year. In fact, the program has grown significantly since 2007, when the first WaterSense-labeled products–high-efficiency toilets of 1.28 gallons per flush or less, and bathroom sink faucets of no more than 1.5 gallons of water per minute – were made available to consumers. Just 120 toilet models and 30 models of faucets and faucet accessories earned the WaterSense label in 2007.[1] Today, more than 34,000 WaterSense plumbing product models are available, according to the WaterSense 2019 Accomplishments Report.[2] The program has been expanded beyond toilets and faucets to include showerheads, urinals, commercial pre-rinse spray valves, and landscape irrigation controllers and sprinklers.

[1]2007 Accomplishments, EPA's WaterSense® Program: Making Water Efficiency Easy, U.S. Environmental Protection Agency, Office of WaterSense, April 2008, https://www.epa.gov/sites/production/files/2017-02/documents/ws-aboutus-2007-accomplishments.pdf

[2]WaterSense Accomplishments 2019,U.S. Environmental Protection Agency, Office of WaterSense, EPA-832-R-20-002 – June 2020, https://www.epa.gov/sites/production/files/2020-07/documents/ws-aboutus-2019_watersense_accomplishments.pdf

When consumers look for the WaterSense label, they know they will find a product that performs well, conserves water, and saves money. Using water more efficiently will conserve supplies now and for future generations.

PMI has provided comments to the questions posed by EPA in the RFI, which are found in our attachment. In response to those questions, PMI concluded that:

- Should EPA revise existing specifications or create new product specifications in the future, then PMI believes that customer satisfaction data is one consideration that should be taken into account during the performance criteria evaluation process.

- We believe there are reasonable uses for customer satisfaction information within WaterSense, but caution should be exercised in developing any such study because of a variety of factors, which we explain in our response. Additionally, we firmly believe the key WaterSense stakeholders must be allowed to provide input before any consumer satisfaction survey is released publicly.

PMI is the nation's leading trade association for the plumbing fixtures and fittings manufacturing industry. Producing 90 percent of the United States' plumbing products and representing more than 150 brands, PMI's members are industry leaders in manufacturing innovative, reliable and water-efficient plumbing products and related supplies.

Our highly-engineered plumbing products, sold and distributed in all 50 states, include toilets, kitchen and bathroom faucets, showerheads, bathtubs, sinks, urinals, drinking fountains, and eye wash stations, as well as hundreds of types of components, and valves and piping, which are key to our nation's indoor plumbing systems. These products are readily available at home improvement stores, hardware stores and showrooms in all 50 states, as well as online. Our members supply these products to residential, commercial, and not-for-profit customers, including schools, hospitals, nursing homes, restaurants, hotels, manufacturing facilities, correctional facilities, and military bases.

Today, plumbing manufacturers, along with their wholesale and retail partners, contribute $85 billion to the U.S. economy, provide more than 460,000 jobs, generate $26 billion in wages, and pay $11 billion in tax revenues.

PMI values our partnership with WaterSense and appreciates the opportunity to provide these comments. Please do not hesitate to reach out to us with any questions.

Sincerely,

Kerry Stackpole
CEO/Executive Director
Plumbing Manufacturers International
kstackpole@safeplumbing.org

cc: David Ross, Assistant Administrator, Office of Water
D. Lee Forsgren, Deputy Assistant Administrator, Office of Water
Andrew D. Sawyers, Director, Office of Wastewater Management

ATTACHMENT

PMI Comments on EPA's WaterSense Request for Information on Consumer Satisfaction– EPA–HQ–OW–2020–0026

The agency is specifically requesting comments on:1) data, surveys, or studies to help assess consumer satisfaction with WaterSense-labeled products, which could inform future product specification development; 2) input on how to design a study or studies to inform future reviews that incorporate customer satisfaction considerations; and, 3) advice on whether the agency should include consumer satisfaction criteria in the WaterSense program guidelines and, if included, what criteria should be considered and how.

Overview

Plumbing Manufacturers International (PMI) has been a strong proponent of the U.S. Environmental Protection Agency's (EPA) WaterSense program since its inception more than a decade ago. We are proud of how this voluntary public-private partnership that develops specifications for water-efficient plumbing products has evolved and how it offers consumers a straightforward way to make product choices that use less water, without sacrificing quality or product performance.

Consumer, utility, state and local government, and private sector support for the program has grown not only due to the program's successful outcomes, but also because of the quality and integrity of the products bearing the WaterSense label, which are the result of federal government oversight and independent, third-party certification.

The program has created a water efficiency benchmark for plumbing products that has allowed plumbing manufacturers to confidently invest millions and millions of dollars in product development and marketing initiatives.

Thanks to the collaborative nature of the WaterSense partnership and its national scope, not only manufacturers, but consumers, retailers, utilities, and state and local governments have been able to use this program effectively. Key examples include:

- **The popularity of the program is proven by its growth**. Plumbing manufacturers have expanded the number and types of WaterSense products from 150 labeled products in 2007[3]**to more than 34,000 products by 2019**, according to the most recent WaterSense 2020 Accomplishments Report.[4]
    - WaterSense-labeled product models have been expanded to include a wide variety of toilets, showerheads, faucets, faucet accessories, urinals, commercial kitchen faucets, and landscape irrigation controllers.
- **WaterSense offers a recognizable label for consumers** who are seeking to identify and considering purchasing water-efficient plumbing products for homes, schools, restaurants, and other commercial businesses that conserve water with no sacrifice to quality or performance.

[3]2007 Accomplishments, EPA's WaterSense® Program: Making Water Efficiency Easy, U.S. Environmental Protection Agency, Office of WaterSense, April 2008, https://www.epa.gov/sites/production/files/2017-02/documents/ws-aboutus-2007-accomplishments.pdf

[4]WaterSense Accomplishments 2019,U.S. Environmental Protection Agency, Office of WaterSense, EPA-832-R-20-002 – June 2020, https://www.epa.gov/sites/production/files/2020-07/documents/ws-aboutus-2019_watersense_accomplishments.pdf

- Rather than having state and/or local officials make their own determination on how to achieve more water efficiency than federal minimum standards, **WaterSense provides the national specifications** agreed to by key stakeholders, including plumbing product manufacturers and the federal government. The WaterSense label is the government and industry's guarantee to consumers and other purchasers that the products meet those specifications.
- **The program's water-savings results are measurable. The WaterSense** program has saved $4.4 trillion gallons of water, and consumers have saved $87 billion of water and energy expenses since 2007.[5]
- KB Home, one of the largest home builders in the nation, constructs homes optimized for water conservation. As of 2019, the company has **built more than 15,000 WaterSense-labeled and Water Smart homes** and installed more than 600,000 WaterSense-labeled fixtures.[6]
- **Public and private utilities in all 50 states tailor successful water conservation programs** around consumer use of WaterSense-labeled products, including rebate programs[7]to encourage the utilization of WaterSense-labeled products.
- As many states face severe drought conditions, **WaterSense is helping consumers reduce their water use and conserve water**.
- **Plumbing fixture performance has improved significantly since the advent of WaterSense**. Manufacturers continue to develop new, innovative, and technologically driven plumbing product models.
- **More and more consumers are focused on minimizing their carbon footprint and placing more emphasis on "green" products and homes, including water-saving plumbing products**.
- **More than 2,000 WaterSense partners**, including all major U.S. plumbing manufacturers, consumer groups, water utilities, builders, retailers, distributors, water efficiency advocates, and communities, **collaborate with EPA to make this a successful program.**

Below you will find PMI's specific comments concerning the collection of consumer satisfaction data.

Response to EPA Questions on Consumer Satisfaction

1. ***EPA is seeking input and requesting information on any data, surveys, or studies to help assess consumer satisfaction with WaterSense-labeled products.***
   a. There are numerous public sources of data relating to consumer satisfaction of WaterSense-labeled plumbing products. Product reviews can be found online through retailer websites (e.g., home improvement stores), online marketplaces such as Amazon and Build.com, independent reviews by Consumer Reports, Home Advisor, and home improvement magazines, and on some individual manufacturer's websites.
   b. Plumbing manufacturers gather consumer input at various times in the development and the lifecycle of a plumbing product as part of a broader product development plan. For example, consumer feedback can take place during field trials, when a product is brought to the marketplace, from the abundance of online reviews, as well as in the early development stages. However, to the extent that manufacturers have consumer satisfaction data on WaterSense or non-WaterSense plumbing products, such information is considered **confidential and proprietary**.

[5]WaterSense Accomplishments 2019, U.S. Environmental Protection Agency, Office of WaterSense, EPA-832-R-20-002 – June 2020, https://www.epa.gov/sites/production/files/2020-07/documents/ws-aboutus-2019_watersense_accomplishments.pdf

[6]KB Home Wins 2019 WaterSense Sustained Excellence Award for Advancing Water Efficiency, Business Wire, October 4, 2019, https://www.bloomberg.com/press-releases/2019-10-04/kb-home-wins-2019-watersense-sustained-excellence-award-for-advancing-water-efficiency

[7]Don't flush money down the toilet - Durham program offers money for toilet upgrades, ABC11, J Wilson, January 28, 2020 - https://abc11.com/toilets-watersense-durham-nc/5879675/

c. Should EPA revise existing specifications or create new product specifications in the future, then PMI believes consumer satisfaction data is one consideration that should be taken into account during the performance criteria evaluation process. For example, past specification processes included consumer satisfaction data submitted during the stakeholder public comment period by third parties, as well as data gathered by EPA.

2. ***The EPA also is seeking input on how to design a study or studies to inform future reviews that incorporate customer satisfaction considerations.***

a. An EPA-conducted customer satisfaction survey could capture consumer understanding and evaluate brand recognition and perception of the WaterSense label and program, such as satisfaction with water and energy savings. But attempting to focus on individual product performance would be challenging, because performance is influenced by numerous variables including individual product design and engineering, the age of the home and/or building and the municipal plumbing systems. These critical factors impact water pressure and drain line carry. The majority of consumers don't fully understand their plumbing systems and are most likely unaware of how these issues influence product performance.

b. Product-focused surveys can be difficult for consumers to differentiate a product-specific feature versus a water efficient/WaterSense-related feature. For example, is the consumer responding to satisfaction with the performance of the product's efficiency or is the response based on aesthetic issues? Survey questions may not be able to ascertain such distinctions.

c. It is important to know whether the customer is a renter or owner. Renters likely would not have purchased the plumbing products and thus would not have any decision in the selection. Owners, however, have the purchasing power and control over the types of plumbing products that are installed.

d. Caution should be used when collecting and/or reviewing customer satisfaction comments about WaterSense products because results can be skewed based on how the questions are asked and which customers are responding.

e. A consumer satisfaction survey should have input from the key WaterSense stakeholders before being publicly distributed.

The WaterSense brand and program deliver value on many levels, creating efficiency targets for manufacturers, measurable and significant gains in water use that utilities and regulators can count on, and a recognizable label the consumer can look for when purchasing products. Annual water and energy savings continue to rise, resulting in a significant financial benefit to both consumers and to water, sewer, and energy utilities. PMI is proud of our ongoing WaterSense partnership and the thousands of plumbing products manufactured under this successful program.

PMI Members

*Bradley Corporation *CSA Group *Delta Faucet Company *Duravit USA
*Fisher Manufacturing Company *Fluidmaster, Inc. *Franke *Global OEM *Globe Union Group
*Hansgrohe*Haws Corporation *IAPMO *International Code Council Evaluation Service *KEROX *Kohler Co
*Lavelle Industries, Inc. *LIXIL *Moen Incorporated *NEOPERL, Inc.
*NSF International *Pfister *Reliance Worldwide Corporation *Similor AG *Sloan Valve Company *Speakman Company *Sprite *Symmons Industries, Inc. *T & S Brass and Bronze Works, Inc.*TOTO USA *UL LLC
*Viega LLC *WaterPik *WCM Industries, Inc.

Commenter: Medea Villere
Affiliation: General Public
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0103

Comment Text:

I am urging the US EPA to remain committed to fully supporting the continuation of this successful program (WaterSense). Since its creation in 2006, the WaterSense program has saved more than 4.4 trillion gallons of water. The program has saved users more than $87 billion in water and energy bills during that time. WaterSense still saves U.S. residents billions of gallons of water every year, with 871 billion gallons saved in 2019 alone. Please refrain from using consumer satisfaction ratings as a factor in WaterSense certification. Product performance alone should govern the certification.

Commenter: N/A
Affiliation: Plumbing Industry Leadership Coalition (PILC) et al.
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0104

Comment Text:

See attached file(s)

Attachment

See pages 253 through 255.

PLUMBING INDUSTRY LEADERSHIP COALITION

July 24, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

Subject: Comments on Docket ID No. EPA-HQ-OW-2020-0026 - Request for Information on the WaterSense® Program

Dear Administrator Wheeler:

The Plumbing Industry Leadership Coalition (PILC) is a cross-sectional representation of executives from the plumbing industry in the United States. The PILC is comprised of the largest and most influential associations, professional societies, nonprofits and third-party certification bodies representing manufacturers, plumbers' unions, contractors, engineers and water efficiency experts. The undersigned PILC member organizations appreciate the opportunity to comment regarding the U.S. EPA WaterSense Program in response to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published on April 10, 2020 in the Federal Register.

We'd like to preface our comments by stating that the entire breadth of the plumbing industry in the United States fully supports the WaterSense program. Despite its meager funding levels, the WaterSense program is a model of a successful public-private sector partnership. Independent research on residential water use and has shown that WaterSense labelled products are performing well. To date, over 3.4 trillion gallons of valuable potable water have been saved since the introduction of the program in 2006 resulting in over $84 billion in water, sewer and energy bill savings for American consumers. Very few government programs yield such profound benefits to industry, consumers and the environment.

Regarding the EPA's request for specific commentary in the Federal register, the PILC offers the following comments:

1. *Should the EPA include customer satisfaction criteria in the WaterSense specification and guidelines?*

The PILC recommends that such criteria not be included in the program's specifications and guidelines. While such information might provide insights into the user experiences with WaterSense labeled products, writing satisfaction criteria into the specifications would be problematic. Rather, the PILC recommends that consumer satisfaction research be conducted by independent, qualified organizations capable of developing surveys that are scientifically developed to eliminate biases.

However, the PILC recognizes that the best measure of consumer satisfaction is the market place itself. Manufacturers of plumbing products compete every day for American consumer dollars.

Products that do not perform to consumer expectations are readily eliminated from the competitive marketplace.

2. *How should the EPA design studies to inform future reviews that might incorporate customers satisfaction considerations?*

The plumbing industry understands that measuring customer satisfaction, especially as it pertains to plumbing products, is difficult to accurately measure, especially through the use of surveys. User perceptions are shaped by many variables, including brand selection, problems encountered with the installation of the product that are specific to a given installation, conditions particular to the plumbing system or water distribution system (such as supply pressure and water hardness), and appearance.

Importantly, consumer opinions on the use of products that are considered environmentally friendly or "green", have unfortunately become increasingly polarized due to political discussions. These biases are real and will be difficult to overcome when measuring consumer satisfaction. Thus, any studies that seek to inform such reviews would need to take this into account.

3. *What information, data, surveys, and studies are available to help assess customer satisfaction with WaterSense labelled products which could help inform future product specifications?*

Due to the difficulties with measuring customer satisfaction, as discussed above, we are not aware of any scientific surveys or studies that were specifically developed to measure customer satisfaction with WaterSense labelled products. However, a great deal of data exists on the performance of WaterSense labelled toilets.

The well-established MaP Testing (Maximum Performance Testing) began testing 1.6 gallon per flush toilets (gpf) in 2003, prior to the introduction of the EPA's WaterSense program, in response to complaints of poor performance on some early 1.6 gpf toilet models. Since then, the market has transitioned to High Efficiency Toilets (HETs) that flush at 1.28 gpf, a 20% reduction from 1.6 gpf models. Today, almost 3400 toilet models have been voluntarily submitted for testing by manufacturers and the published MaP results over the years clearly indicates that performance has continuously improved. Many of today's HETs are capable of flushing over 1000 grams of test media and toilet paper, providing performance that exceeds consumer expectations despite the transition to HETs.

It should also be noted how the WaterSense program has impacted and advanced industry standards in recent years. Tests that were originally developed through the WaterSense specification process have been considered and have been incorporated into industry standards. For example, when the WaterSense specification on water efficient showerheads was developed, two performance tests were included in that specification that investigated spray coverage area and spray force, attributes that directly relate to consumer satisfaction. Both tests were later incorporated into the ASME A112.18.1 / CSA B125.1 industry standard for all showerheads.

PLUMBING INDUSTRY LEADERSHIP COALITION

4. *Comments on EPA's Recent review of the WaterSense program.*

The PILC supports the EPA's decision to not revise current WaterSense specifications for water efficient plumbing products. While lower flow rates and water consumption values may be technically achievable, research is required to better understand the resulting impacts on infrastructure and the relationship between reduced flows and declining water quality, as discussed in NIST's *Measurement Science and Research Needs for Premise Plumbing Systems* report. The PILC is equally opposed to any revisions to WaterSense specifications that would increase flow rates or consumption values. Such changes would harm the WaterSense program and would add to the proliferation of new regulations that mandate new water efficiency requirements at State and local levels and would result in considerable market confusion.

On behalf of all PILC member organization, we thank the EPA for their commitment to water efficiency and their consideration of the concerns of the U.S. plumbing industry.

Sincerely,

Alliance for Water Efficiency
American Society of Plumbing Engineers (ASPE)
American Supply Association (ASA)
American Society of Sanitary Engineering
Copper Development Association Inc.
International Association of Plumbing and Mechanical Officials (IAPMO)
International Code Council (ICC)
Mechanical Contractors Association of America (MCAA)
Mechanical Hub
Plumbing Contractors of America (PCA)
Plumbing-Heating-Cooling Contractors—National Association
Plumbing & Mechanical Group (BNP Media, Inc.)
Plastic Pipe and Fittings Association (PPFA)
Plumbing Industry Leadership Coalition (PILC)
The American Rainwater Catchment Systems Association (ARCSA)
The United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States, Canada (UA)

Commenter: David Searcy, Conservation Coordinator
Affiliation: Medford Water Commission
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0105

Comment Text:

See attached file(s)

Attachment

See page 257.

MEDFORD WATER COMMISSION

July 24, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

RE: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense®

Program Dear Administrator Wheeler:

In 1922 the 12,000 citizens of Medford Oregon wanted a better solution for their water system, thus Medford Water Commission (MWC) came into being. Today MWC serves over 130,000 people. Our Conservation Program has been in existence since the mid 1990's practicing "Conservation Without a Crisis" beginning with outdoor landscape irrigation evaluations. In 2009 MWC Toilet Rebate Program was launched based on the success of the EPA Water Sense labeling program with third party MaP testing. Prior to that, low flush toilets were quite unreliable, even at 1.6 gallons per flush (gpf). Water Sense set a higher standard for manufacturers with a maximum 1.28 gpf while able to flush a minimum 12 ounces of solids. Consumers could believe in the Water Sense Ultra Low Flow toilets.

Over the past 20 years MWC's population served has grown by 25% while our gallons produced has gone up by only 10%. Our Conservation program using Water Sense labeled products has allowed MWC to keep our cost of delivery down, therefore a lower cost to our customers, as well as a lower water bill because of less gallons consumed.

In the past 10 years of our Toilet Rebate Program there have been only two issues brought up during our premise inspection of the installed toilets. In neither case was it a product issue. Both times were installation issues: One a clogged roof vent pipe and the second a rubber band from the packing that had not been removed. In each case when the issue was resolved, the customers were satisfied with their new ultra-low flow toilets.

MWC's Toilet Rebate Program has enjoyed great success over the years as satisfied customers tell their friends, neighbors and family. To date MWC has processed over 2,000 toilet rebates that translates to almost 9 million gallons of water saved in one year.

Thank you for doing your utmost to ensure this inexpensive, valuable, and effective program that continues to deliver for the American people.

Sincerely,

David Searcy
Conservation Coordinator
Medford Water Commission

200 S. Ivy Street, Room 177
Medford, Oregon 97501
Phone (541) 774-2430
www.medfordwater.org
water@medfordwater.org
Fax (541) 774-2555

Commenter: Candice Rupprecht, Water Conservation Manager
Affiliation: City of Tuscon (Arizona)
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0106

Comment Text:

Comment submitted by Candice Rupprecht, Water Conservation Manager, City of Tucson

Attachment

See pages 259 and 260.

July 24, 2020

Mr. Andrew Wheeler
Administrator
Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20460

Dear Administrator Wheeler:

As the water conservation manager for Tucson, Arizona, a city that is a proud national leader in water conservation, I am writing express support for the EPA's WaterSense program. WaterSense, as a voluntary federal program, has had remarkable success in just over a decade. Operating with a small staff and budget, the program has transformed the market for plumbing fixtures and irrigation controllers, saving American consumers over 4.4 trillion gallons of water and more than $87 billion in water and energy bills. In Tucson, water rates are 15% lower today due to decades of water conservation as a result of not needing to acquire and treat additional water supplies. Like many cities across the county, Tucson has reduced its total use by 31% while population grew by 40%. One of the strongest drivers of water conservation is through adoption of technology that increases efficiency. WaterSense ensures that increases in efficiency of these conservation devices does not impact performance. In fact, establishing product specifications to meet WaterSense requirements has often increased fixture performance.

Tucson Water, along with over 2,000 organizations across the county, is a proud partner of the EPA's WaterSense program. There is consensus across sectors that WaterSense is a wise investment toward ensuring resource sustainability in our communities. Like many water providers across the county, Tucson Water depends on the WaterSense program's product labeling criteria to identify rebate-eligible products. To date, rebates relying on WaterSense criteria have saved Tucsonans 500 million gallons of water!

WaterSense has ensured national consistency in rebate programs and product quality that meet rigorous standards; high-quality products and a common language, similar to EnergyStar, have elevated the conversation about water efficiency and conservation to a national platform. WaterSense is a necessary partner in effectively administering water conservation incentive programs and their standards-based approach has resulted in strong support for the manufacturing and retail partners that develop and sell WaterSense-certified products. The R&D invested in WaterSense products cannot be understated; these specifications have driven innovation that has saved our country billions of dollars. Adding customer satisfaction criteria to what is currently a measured, analytical approach to determining product eligibility will devalue the science and engineering process and convolute otherwise straightforward requirements. Customer satisfaction has no place in establishing federal standards for fixture

performance; this should be left to manufacturers and consumers when selecting among products that have all met the same criteria.

I offer my strong support for the WaterSense program, including the effective education and outreach that have been developed and the specifications that have been rigorously researched and evaluated to determine WaterSense product labeling. WaterSense brand recognition is strong throughout the country, symbolizing efficient and effective products that save American consumers dollars and protect our country's water supplies.

Sincerely,

Candice Rupprecht
Water Conservation Manager
Tucson Water
City of Tucson

Commenter: John Farner, Government and Public Affairs Director
Affiliation: Irrigation Association
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0107

Comment Text:

See attached file(s)

Attachment

See pages 262 and 263.

Irrigation ASSOCIATION®
8280 Willow Oaks Corporate Drive | Suite 400 | Fairfax, VA 22031
Tel: 703.536.7080 | Fax: 703.536.7019
www.irrigation.org

Docket ID Number: EPA–HQ–OW–2020–0026
Recent Specifications Review and Request for Information on WaterSense Program

July 24 2020

The Honorable Andrew Wheeler
Administrator, U.S. Environmental Protection Agency

Dear Administrator Wheeler:

On behalf of the approximate 1,600 member companies of the Irrigation Association, I am writing to notify you of our continued support for the EPA's WaterSense program, in response to the review of WaterSense product performance criteria as required under the America's Water Infrastructure Act (AWIA) of 2018.

Since its inception in 2006, WaterSense has served as a successful public-private partnership. The collaboration between industry, public and private water providers, along with the federal government, has helped expand the water efficient product marketplace. As our nation works to develop ways to address water shortages and its aging infrastructure system, the successes of the WaterSense program should not be overlooked.

The Irrigation Association collaborated with the EPA and other NGOs to create the WaterSense program. Driven by our mission statement, to promote efficient irrigation, the Irrigation Association represents experts in all aspects of irrigation, including agriculture, landscape, turfgrass and golf, among others. Irrigation manufacturers, distributors and contractors have proudly partnered with WaterSense since its inception to strengthen the marketplace for efficient water-use technologies and practices.

As you are well aware, WaterSense is a non-regulatory, voluntary program that is not duplicative of any programs offered by the federal government, relating to turfgrass and landscape irrigation. This national effort allows for the elimination of possible federal regulations that could burden both consumers and industry. The voluntary water-efficient performance measures created by WaterSense allow manufacturers to better plan and allocate resources.

Local entities can then determine how best to proceed with promoting water-efficient products in their communities, showing a true commitment to federalism. Local water authorities, utilities, and city governments to encourage the use of WaterSense-labeled products through various rebates.

In addition to having industry support for the program, the Irrigation Association has been an official WaterSense partner since the program's inception. Having certified the most irrigation professionals through our WaterSense labeled irrigation contractor, designer, and auditor certifications, we are familiar with the benefits of WaterSense. With the WaterSense label for certification programs, consumers are more aware of our certified irrigation professionals. This helps in the promotion of a strong workforce that consumers can rely upon for industry expertise.

WaterSense is supported by consumers, manufacturers, and public and private agencies charged with supplying water to American households and businesses. Thanks to WaterSense, American families and businesses have greater access to water-efficient products, including irrigation controllers that can reduce an average home's irrigation water use by more than 20 percent, while making irrigation system management significantly easier to perform. This means that an average home can save nearly 8,000 gallons of water annually. Since 2006, indoor and outdoor WaterSense-labeled products have saved more than 1.5 trillion gallons of water. The benefits of WaterSense directly affect the pocketbooks of Americans – with $36.2 billion in water and energy bill savings. These savings have not gone unnoticed by the consumers. In fact, these savings are a tool contractors, distributors and manufacturers use to sell WaterSense-labeled technologies.

With that said, our only concern regarding the WaterSense program is the effort of various state legislatures to make WaterSense-labeled technologies mandatory. The Irrigation industry enthusiastically supports the continuation and growth of the WaterSense program, specifically the voluntary aspect of the program. The IA also continues to participate in ANSI standard setting processes for other irrigation technologies. There is room for both in the water efficiency discussion, but our stance is that the WaterSense program should be leading the national discussion on water efficient technologies and enhancing the market for these technologies. However, this label should remain voluntary. This is crucial to the future success of the program.

Maintaining America's drinking water supply is also of concern. Water is one of our most precious national resources. Reducing landscape water use, which can account for up to 70 percent in some parts of the country, is a critical way we can help address the seasonal scarcity. As mentioned earlier, the Irrigation Association's mission statement is to promote efficient irrigation. Our industry is at the cutting edge of developing technologies and practices that are designed to significantly reduce the amount of water used in landscapes across the U.S., while ensuring that Americans continue to enjoy all of the benefits that managed landscapes have to offer.

Sincerely,

John Farner
Government and Public Affairs Director

Commenter: Gregory J. Walch, Chairman
Affiliation: Western Urban Water Coalition
Comment Date: July 24, 2020
Document ID: EPA-HQ-OW-2020-0026-0108

Comment Text:

Attached please find the comments submitted by the Western Urban Water Coalition (WUWC).

Thank you for your consideration of these comments.

Attachment

See pages 265 through 268.

WESTERN URBAN WATER COALITION

July 24, 2020

Submitted via //www.regulations.gov/

Andrew Wheeler
Administer
Environmental Protection Agency
1200 Pennsylvania Avenue, NW, MC 4101M
Washington, DC 20460

RE: Comment on the "Notice of Recent Specifications Review and Request for Information on WaterSense Program," 85 Fed. Reg. 20268 (Apr. 10, 2020), Docket No. EPA-HQ-OW-2020-0026

The Western Urban Water Coalition (WUWC or Coalition) appreciates this opportunity to comment on the U.S. Environmental Protection Agency (EPA) Notice of Recent Specifications Review and Request for Information on WaterSense Program," 85 Fed. Reg. 20268 (Apr. 10, 2020).

WUWC was established in 1992 to address the West's unique water supply and water quality challenges that threaten the economic sustainability and growth of the large western population centers. WUWC consists of the largest urban water utilities in the West, who together serve more than 40 million urban water consumers in 18 major metropolitan areas across seven states.[1] Some of these utilities also operate wastewater, natural gas and electric, including hydroelectric, facilities for their customers.

WUWC is committed to presenting a new and different perspective on the management and use of water resources in the modern West. WUWC articulates the needs and values of Western cities to provide a reliable, high quality urban water supply for present and future generations. As operators of urban water supply systems, WUWC members serve the health, environmental, and economic needs of their communities around the clock, every day of the year. WUWC advocates for effective and practicable approaches to the development of new water supplies to increase reliability and resiliency in a time when critical water supplies are becoming more scarce.

[1] **Arizona** (Central Arizona Project, City of Phoenix and Salt River Project); **California** (Eastern Municipal Water District, Los Angeles Department of Water and Power, The Metropolitan Water District of Southern California, San Diego County Water Authority, Santa Clara Valley Water District, and City and County of San Francisco Public Utilities Commission); **Colorado** (Aurora Water, Colorado Springs Utilities, and Denver Water); **Nevada** (Las Vegas Valley Water District, Southern Nevada Water Authority, and Truckee Meadows Water Authority); **New Mexico** (Albuquerque Bernalillo County Water Utility Authority); **Utah** (Salt Lake City Public Utilities); and **Washington** (Seattle Public Utilities).

A. General Comments

WUWC has historically been, and will continue to be, an ardent supporter of the goals of the WaterSense Program and federal policy that strives to ensure the effective use of the nation's water resources. WUWC strongly supports the EPA's development of the WaterSense Program that strives to foster efficient use of water, and we commend its effort to support WaterSense as a means of ensuring water availability and mitigating the risks of future drought and other water supply challenges across the country. WUWC members have experienced high customer satisfaction with the WaterSense program.

WUWC members are nonprofit public utilities dedicated to providing a reliable, high-quality urban water supply. Water conservation is critical to WUWC members' efforts to meet current and future demands in the arid, water-constrained West. Their mission is more critical now than ever considering the essential role of clean water in combatting the spread of COVID-19 and maintaining public health, livelihoods and sustenance during this time of crisis. Programs such as WaterSense that promote an ethic of water efficiency to conserve water resources for future generations and reduce water and wastewater infrastructure costs are now more important than ever. WUWC strongly encourages the EPA to continue this successful and innovative partnership program and stresses the critical importance to WUWC members that the EPA receive permanent funding for WaterSense.

It is also important for the EPA to focus on the benefits and importance of water use efficiency gains as a primary goal when developing specifications for future products, while also acknowledging that the widespread adoption and use of products, industry and customer perceptions of water use efficiency products, and the market penetration/adoption rate of WaterSense products, will be heavily dependent on customer and industry attitudes and perceptions toward WaterSense labeled products. Many states, including WUWC states, have tied state water use efficiency language to WaterSense standards, so that incremental improvements to WaterSense technologies and performance standards move utilities closer to meeting their goals with little to no opposition or cost to their customers.

WUWC joins the Alliance for Water Efficiency (AWE) and other water organizations in the submission of detailed comments submitted on the above-referenced docket on July 24, 2020. WUWC members, experienced with the unique challenges facing the Western states, also offer the following additional specific comments that could be beneficial in efforts to improve the WaterSense Program.

B. Specific Comments

1. Increase standards for existing WaterSense devices

It is essential that efficiency standards of WaterSense products are increased over time, consistent with what the Energy Star Program has done with a wide variety of products. WUWC recommends that EPA use this opportunity to implement higher efficiency standards for existing WaterSense products and devices—in line with improvements in technology and performance of these devices. WUWC members have had rebate programs for water-efficient devices for decades, and their current standards are often more efficient than the current WaterSense standards. Overall customer satisfaction with these rebate programs has been high, and WUWC

members have achieved significant reductions in indoor and outdoor water usage from the installation of devices they rebate. WaterSense products that should have higher efficient standards include:

- High-efficiency toilets and urinals
- Faucet aerators and low-flow showerheads
- Weather-based irrigation controllers

2. New devices for WaterSense certification

EPA should consider adding new devices for WaterSense certification that have a high potential for water savings but are not currently a part of the program, including:

- Rotating nozzles
- Drip irrigation
- Leak detection metering devices

WUWC also recommends that higher water efficiency standards be evaluated when higher energy standards are considered for Energy Star products that use water, like clothes washers.

3. Continued and collaborative use of studies and customer surveys, and use of more recent information

While WUWC appreciates the goals and efforts of the WaterSense Program, we are concerned that much of the information used by the EPA to frame its recommendations is anecdotal. We recommend that EPA not only continue its use of studies and customer surveys to help educate and shape the WaterSense Program, but also use more recent information and current technological advances. For example, the Notice references a customer satisfaction survey conducted by the Metropolitan Water District of Southern California in 1999, conducted when the technology was much different than it is today.

WUWC members frequently conduct their own studies and customer surveys to help assess consumer satisfaction with their water use efficiency programs and products, including WaterSense labeled products. The EPA may be able to improve its reach by collaborating with WUWC, its members and other utilities, and water use efficiency trade organizations (such as the Water Research Foundation) to administer surveys that could help develop standardized questions for data collection, providing greater consistency in how surveys are administered and reductions in the cost of gathering survey information for both utilities and the EPA studies—surveys that these utilities could incorporate into their customer research that would inform future product specification development. Such surveys, studies, and data collection efforts could be administered to customers on a voluntary basis and reported to the EPA to improve the WaterSense Program.

This collaborative effort could result in more robust and reliable information that can be used to set performance standards, evaluate the effectiveness of water use efficiency programs, and evaluate water savings potential, among other benefits. It would also likely strengthen the partnership between the EPA and the water community, which would be beneficial for future data gathering and partnering on water use efficiency issues.

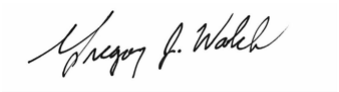
The EPA should also incorporate surveys of the industry and studies of the actual impacts of WaterSense technologies on water use. Several studies, like the ***Residential End Uses of Water Study*** update published by the Water Research Foundation, and some other smaller efforts, demonstrate the impacts of WaterSense on actual usage. A survey of the number of fixture and equipment models that exceed WaterSense efficiency and performance standards would be valuable and some of that information is very easily obtained. WUWC also suggests that the EPA outreach to specific utilities, including WUWC member utilities, to identify studies the EPA can reference about customer satisfaction and brand recognition (such as recognition of the WaterSense Program compared to Energy Star).

C. Conclusion

Based on this extensive background and our members' experience being on-the-ground partners with the EPA, WUWC is prepared to assist the EPA in its efforts to both improve and encourage the use of WaterSense Program. Further, WUWC looks forward to continued dialogue and collaboration on how the WaterSense Program can benefit water providers in the West and across the country.

Thank you for the opportunity to provide these comments. If you have any questions regarding these comments, please contact me at 702-258-7166 or greg.walch@lvvwd.com, or the WUWC national counsel, Don Baur at 202-654-6234 or dbaur@perkinscoie.com.

Very truly yours,



Gregory J. Walch
Chairman

cc: Donald C. Baur
Perkins Coie LLP
700 Thirteenth St., NW, Suite 600
Washington, D.C. 20005

Commenter: Mary Ann Dickinson, President and Chief Executive Officer
Affiliation: Alliance for Water Efficiency (AWE) et al.
Comment Date: July 22, 2020
Document ID: EPA-HQ-OW-2020-0026-0109

Comment Text:

Alliance for Water Efficiency and 60 organizations submit the attached as comment. 1 of 3

Attachment

See pages 270 through 281.

July 22, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

RE: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

Dear Administrator Wheeler:

The Alliance for Water Efficiency (AWE) and the undersigned 60 organizations and businesses write to express our strong support for the WaterSense program at the Environmental Protection Agency (EPA) and to share with you our submitted comments regarding WaterSense. We are filing these comments in response to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published on April 10, 2020 in the Federal Register. Our comments address the recent EPA review of the WaterSense program, the EPA's

decision not to revise any of the WaterSense product specifications, and the specific questions asked within the Federal Register Notice.

Our comments focus on four specific areas of the Request for Information (ROI) in the Federal Register, the details of which are contained in the attached document. Our basic conclusions are as follows:

1. Since its inception in 2006, WaterSense has sought to base its product specifications on measured values of performance that are tested in a laboratory and certified by a third-party certifying organization.
2. Fixture performance has improved since the advent of WaterSense.
3. The Residential End Use Study results for toilet flushing, showering, and faucet use show that over 15 years, as fixtures themselves have become more efficient, customer use of these fixtures has not changed nor has flushing frequency increased.
4. Customer satisfaction criteria do NOT belong in WaterSense product specifications themselves, but there are reasonable uses for customer satisfaction information within WaterSense.
5. Including a vague, non-scientific concept such as customer satisfaction criteria could introduce uncertainty and bias into what has until now been a fair and scientific process for setting WaterSense specifications.
6. Product-specific customer satisfaction research is best left to the marketplace and manufacturers themselves.
7. The scope of customer satisfaction research should be limited to consideration of the WaterSense brand itself and WaterSense partnerships, like the type of customer satisfaction research ENERGY STAR has conducted in the past.
8. Proper uses of customer satisfaction survey results would inform the EPA about Americans' opinion of the WaterSense brand and their experience with WaterSense labeled products in homes and businesses. This information could help EPA guide the direction of the WaterSense brand and program.
9. While we offer no comments on the EPA's decision not to revise any specifications at this time, we nonetheless believe that it is important that specifications move forward and advance over time, based on adequate study and research. WaterSense product specifications should keep up with changing times and technology.

The WaterSense program has been a tremendous success for EPA. Public and private utilities in all 50 states tailor successful water conservation programs around consumer use of WaterSense-labeled products. And because of the nexus between water and energy use, the 4.4 trillion of gallons of water saved by WaterSense since 2006 have resulted in 522.9 billion kilowatt hours of energy that are not used to heat, pump and distribute water. These savings have resulted in a financial benefit to consumers on an average of more than $380 annually and $87 billion total in water, sewer, and energy bills since 2006.

Thank you for doing your utmost to ensure this inexpensive, valuable, and effective program that continues to deliver for the American people.

Sincerely,

The Alliance for Water Efficiency
Chicago, IL

Alameda County Water District
Fremont, CA

American Supply Association
Itasca, IL

American Water
Camden, NJ

American Water Works Association
Denver, CO

AMWUA
Phoenix, AZ

Amy Vickers & Associates
Amherst, MA

Bottom Line Utility Solutions, Inc.
Laguna Hills, CA

C+C, Inc.
Seattle, WA

California Water Efficiency Partnership
Sacramento, CA

City of Ashland
Ashland, OR

City of Bellingham
Bellingham, WA

City of Bend
Bend, OR

City of Big Bear Lake Department of Water
Big Bear Lake, CA

City of Charlottesville
Charlottesville, VA

City of Durham
Durham, NC

City of Flagstaff
Flagstaff, AZ

City of Mesa
Mesa, AZ

City of Sacramento
Sacramento, CA

City of Westminster
Westminster, CO

Coachella Valley Water District
Coachella, CA

EcoSystems, LLC
Miami, FL

HI Commission on Water Resource Management
Honolulu, HI

IAPMO
Dayton, NJ

Las Vegas Valley Water District
Las Vegas, NV

Mesa Water,
Costa Mesa, CA

Metropolitan North GA Water Planning District
Atlanta, GA

Metropolitan Water District of Southern CA
Los Angeles, CA

Monte Vista Water District
Montclair, CA

Municipal Water District of Orange County
Fountain Valley, CA

National Wildlife Federation
Reston, VA

O'Cain Consulting
Santa Monica, CA

Peter Williams Solutions, LLC
Danville, CA

PHCC—National Association
Falls Church, VA

Rancho Water
Temecula, CA

Regional Water Authority
Citrus Heights, CA

Santa Rosa Water
Santa Rosa, CA

Sacramento Suburban Water District
Sacramento, CA

San Francisco Public Utilities Commission
San Francisco, CA

Scottsdale Water
Scottsdale, AZ

Sonoma-Marin Saving Water Partnership
Santa Rosa, CA

Sonoma Water
Santa Rosa, CA

Soquel Creek Water District
Soquel, CA

Southern Nevada Water Authority
Las Vegas, NV

T&S Brass and Bronze Works
Travelers Rest, SC

Tacoma Water
Tacoma, WA

Texas Water Foundation
Austin, TX

Turfgrass Water Conservation Alliance
Albany, OR

Utah State University, Center for Water Efficient Landscaping
Logan, UT

United Association of Plumbers and Pipefitters of the U.S and Canada
Annapolis, MD

Upper San Gabriel Valley Municipal Water District
Monrovia, CA

Utah Water Conservation Forum
Salt Lake City, UT

Valley County Water District
Baldwin Park, CA

Valley Water
San Jose, CA

Water - Use It Wisely
Mesa, AZ

Water Supply Citizens Advisory Committee to MWRA
Belchertown, MA

WaterDM
Boulder, CO

Waterless Co
Vista, CA

WaterNow Alliance
San Francisco, CA

Western Urban Water Coalition
Washington, DC

Detailed Comments

1. Should the EPA include customer satisfaction criteria in the WaterSense product specifications and guidelines?

We believe that customer satisfaction criteria do not belong in WaterSense product specifications themselves, but there are reasonable uses for customer satisfaction information within WaterSense. Proper uses of customer satisfaction survey results would inform the EPA about Americans' opinions of the WaterSense brand and their experience with WaterSense-labeled products in homes and businesses. This information could help EPA guide the direction of the WaterSense brand and program. However, it would not be reasonable or correct for EPA to include customer satisfaction requirements within individual product specifications.

ENERGY STAR hired JD Power and Associates and others to conduct customer satisfaction surveys about products that receive the ENERGY STAR label.[1] All of these surveys were focused on satisfaction with partnerships, utility programs, and the ENERGY STAR brand. These surveys did not cover topics like the wattage of light bulbs, the duration of dishwasher cycles, or any product-specific information. Recent JD Power research answered the question, "Does Energy Star Partnership Increase Customer Satisfaction?"

Similarly, WaterSense could use customer satisfaction surveys conducted by independent organizations to evaluate utility partnerships, brand recognition, and overall satisfaction with WaterSense-labeled products. This information could help guide EPA to improve the WaterSense program and could even provide insight and general direction for product categories like toilets, urinals and smart irrigation controllers.

Customer satisfaction is a comparatively vague concept that cannot be measured in a laboratory in the same way as flush volumes and flow rates can. As shown in Figure 1, customer satisfaction research examines the nexus between customer expectations, perceived quality, and perceived value. Customer satisfaction with a plumbing fixture depends greatly on the

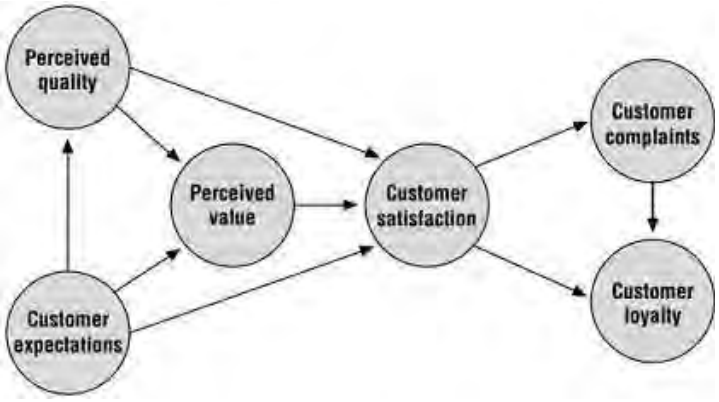


Figure 1: Customer satisfaction research nexus. Source: https://asq.org/quality-resources/customer-satisfaction

[1] https://www.energystar.gov/sites/default/files/asset/document/Schultz_Energy%20Star%20Results_JDPower_2R.pdf
https://www.esource.com/system/files/files/corpcomm_programs-brand.pdf
https://www4.eere.energy.gov/seeaction/system/files/documents/ratepayer_efficiency_customersatisfaction.pdf

quality of manufacturing, the cost of the product, the customers' own expectations, the actual installation of the fixture, the water pressure in the building, and the appearance of the fixture, among other factors. These are all difficult to measure. Including customer satisfaction criteria could introduce uncertainty and bias into what has until now been a fair and scientific process.

Since its inception in 2006, WaterSense has sought to base its product specifications on measured values of performance that are tested in a laboratory and certified by an authorized certification body. These measured values include the volume of water used to flush a toilet, or the maximum flow rate of a showerhead or faucet aerator under specific pressure conditions. These measured test values ensure that products that receive the WaterSense label are tested and are thus capable of meeting established, measurable performance criteria under laboratory conditions. This fundamental adherence to measured performance has provided a level playing field for manufacturers who have produced WaterSense products since 2006. The playing field is level because the measured requirement of each specification is understood by product manufacturers.

Customer satisfaction research is best left to the marketplace and manufacturers themselves. Product manufacturers conduct customer satisfaction research frequently and keep the results to themselves so they can use it strategically to develop their products and brand to competitive advantage. This is truly the proper use of and location for product-specific customer satisfaction research, not with the EPA, but with product manufacturers.

The WaterSense approach of basing specifications on measured values of performance that are tested and certified has had tremendous positive impact on the American economy. Americans can choose from more than 34,000 available models of WaterSense-labeled products for bathrooms, commercial kitchens and irrigation systems. The EPA has estimated that WaterSense-labeled products have saved more than $87 billion on American families' water, sewer, and energy bills. To date more than 2,000 manufacturers, retailers and distributors, water and energy utilities, state and local government, non-profit and trade organizations, irrigation training organizations, and home builders strengthen their businesses through partnerships with WaterSense.

2. How should EPA design studies to inform future reviews that might incorporate customer satisfaction considerations?

Measuring customer satisfaction is a complex task that requires statistical surveying and careful research. It becomes particularly challenging when trying to understand customer satisfaction with a product and to distinguish that from the brand and style and manufacturing of the fixture, the installation of the fixture, the local water pressure, and other factors. The task of measuring customer awareness of and satisfaction with the WaterSense brand as a whole would be quite different than measuring customer satisfaction with specific WaterSense-labeled plumbing fixtures such as toilets or showerheads.

This is not the type of research that can or should be conducted by the EPA itself. To protect WaterSense partners and the integrity of the WaterSense brand, the EPA should rely on the services of professional independent researchers (like JD Power, Edmunds, or KBB) or who specialize in this type of work.

Our recommendation is to limit the scope of customer satisfaction research to consideration of the WaterSense brand itself and WaterSense partnerships, like the type of research ENERGY STAR has conducted. This is much more likely to yield useful information to the EPA. If EPA chooses to conduct customer satisfaction research into specific labeled product categories, it must be designed and conducted by experts with knowledge of both customer satisfaction survey methods and plumbing fixtures.

Superior products will gain market share and it is industry that knows best how to conduct customer satisfaction research. Product category research has been conducted in the marketplace by industry and product manufacturers and distributors who all want this information to make popular products that customers want, to thus gain competitive advantage and market share. Product-specific customer satisfaction research does not need to be and should not be conducted with public funds. Industry may not wish to share the results of the research they have privately conducted, but that is their prerogative. During the WaterSense product specification and review process, information that industry deems relevant can be introduced.

3. **What information, data, surveys, and studies are available that to help assess customer satisfaction with WaterSense-labeled products which could help inform future product specification?**

In 2002, four years before WaterSense was created, all toilets sold in the US were required to comply with ASME Standard A112.19.2, which required testing with media comprised of plastic "granules", nylon balls, sponges and kraft paper. In 2003, in response to water utilities' concerns over the performance of toilets they rebated, engineers John Koeller and Bill Gauley created Maximum Performance Testing (MaP Testing) and began bench-testing toilets using far more realistic test media comprised of dense bean paste. MaP also began publishing testing results on a regular basis so that water utilities could provide toilet fixture performance information to their customers. Manufacturers voluntarily submitted their toilets for MaP Testing so that they could be part of large rebate programs in California, Texas, Georgia, and elsewhere.

By June 2006, when the WaterSense program was introduced, there were already about 500 different tank-type toilet models submitted for MaP Testing, the results of which were released to the public. These toilets could remove an average of 420 grams each (see Figure 2 below). As the WaterSense toilet specification for tank-type toilets was developed, many parties recommended that MaP Testing (or similar testing using realistic test media) be incorporated into the specification and, ultimately, the WaterSense tank-toilet minimum performance specification was set at 350 grams of waste removal using the MaP approach.

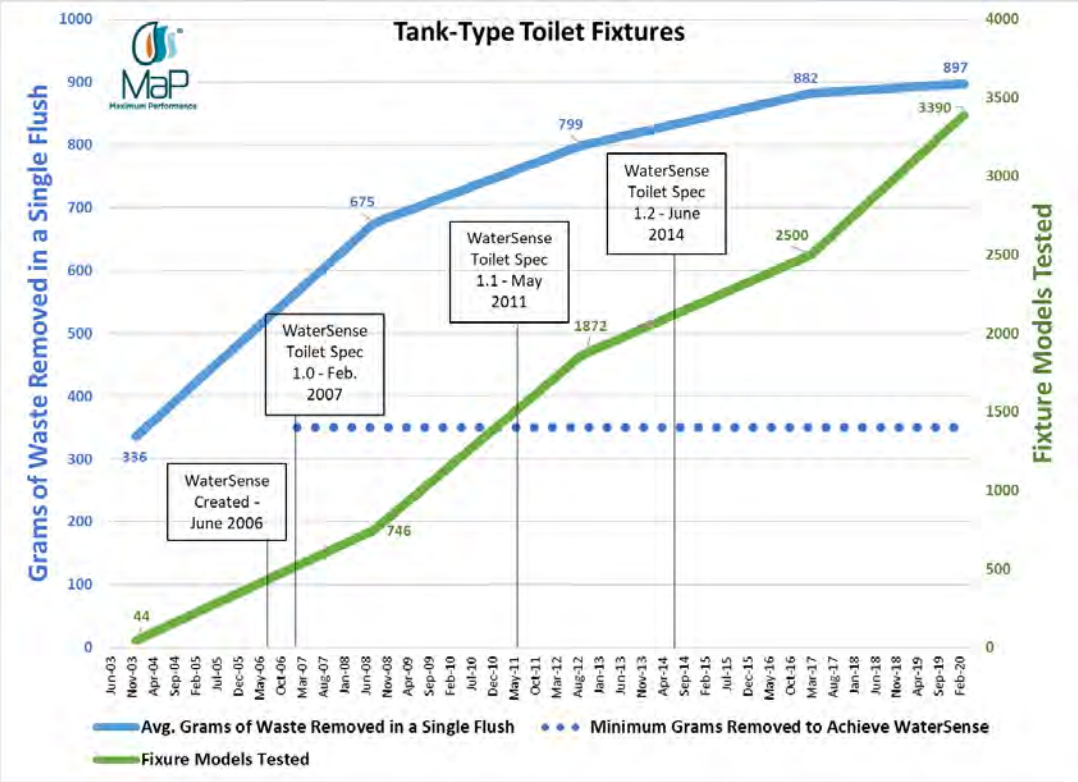


Figure 2: Fixture models tested and average grams of waste removed by tank-type toilets, 2003 – 2020 (Source: MaP Testing)

The WaterSense tank-type toilet specification was released in 2007, and since that time the number of MaP-tested fixture models has gone from 500 to 3,390, and the average flushing performance has improved from 500 grams of waste removed in a single flush to almost 900 grams. To be perfectly clear, 900 grams is nearly two (2) pounds of waste in a single flush, which is over 7 times the median wet weight for daily fecal output by healthy individuals in high income populations (128 grams) and 3.6 times the median wet weight for daily fecal output by healthy individuals in low income populations (250 grams).[2]

The impact of MaP Testing in improving toilet performance has been so significant that it was incorporated into the national product standard (ASME A112.19.2-2013/CSA B45.1-13) in 2013. Figure 2 shows the progression of fixtures tested and the improvement in average flushing performance since the advent of MaP Testing and WaterSense.

American consumers have expressed a high level of satisfaction with WaterSense-labeled products that have been tested through this and other processes. Customers of the Home

[2] The Characterization of Feces and Urine: A Review of the Literature to Inform Advanced Treatment Technology, C. Rose, a A. Parker, a , * B. Jefferson, a and E. Cartmell a – 2015
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4500995/

Depot were so satisfied with WaterSense products that the company chose to sell WaterSense-labeled products exclusively in all of their stores. At competitor Lowe's, the overwhelming majority of eligible product offered for sale carry the WaterSense label. If there were a problem with customer satisfaction, these retail giants would know it and would offer something different. Home Depot and Lowe's both know that the products carrying the WaterSense label perform better than the competition that is not subject to rigorous performance testing.

WaterSense has operated on a very modest budget since 2006, but nonetheless has become remarkably successful and popular. WaterSense manufacturer partners have produced over 4,200 different WaterSense-labeled tank-type toilet models; 9,300 models of WaterSense-labeled showerheads; and 18,000 WaterSense-labeled lavatory faucet and accessory models[3]. American consumers have voiced their satisfaction with their purchases. Industry agrees, and more than 2,000 manufacturers, retailers and distributors, water and energy utilities, state and local government, non-profit and trade organizations, irrigation training organizations, and home builders strengthen their businesses through partnerships with WaterSense.

Based on this success, the popularity of WaterSense is expected to grow. Research from Plumbing Manufacturers International found that within the next 15 years, most bathroom sink faucets and showerheads installed in the United States will be WaterSense-certified or meet the requirements of the WaterSense program. Within the next 30 years, most residential tank-type toilets will also be WaterSense-certified or meet the requirements of the WaterSense program. Within the next 40 years, most flushometer-valve toilets and flushing urinals will be WaterSense-certified or meet the requirements of the WaterSense program.[4]

While not addressing customer satisfaction or WaterSense products directly, the 1999 and 2016 Residential End Uses of Water Studies[5] measured how people use water at home in their daily lives. The studies reveal how frequently people use toilets, faucets, and clothes washers, and to what extent those behaviors have changed over time. This information can be a strong indicator of customer satisfaction. These paired residential end use studies offer the best available measurements of key metrics such as the frequency of toilet flushing, the duration of shower and faucet usage, and the flow rate of these fixtures. This information provides valuable insight about water use patterns and indicates if people are using fixtures the same or more frequently as the flow rates and flush volumes of the fixtures have changed.

The results for toilet flushing, showering, and faucet use show that over 15 years, fixtures themselves have become more efficient, but the use of these fixtures has not changed. The average volume of water used to flush a toilet has decreased, but **the average number of**

[3] Federal Register. April 10, 2020. EPA-HQ-OW-2020-0026 – Request for Information on the WaterSense Program. Vol. 85, No. 70.

[4] IBID

[5] DeOreo, W.B., P. Mayer, J. Kiefer, and B. Dziegielewski. 2016. Residential End Uses of Water, Version 2. Water Research Foundation. Denver, CO.

Mayer, P., W. DeOreo, J. Kiefer, E. Opitz, B. Dziegielewski, and J.O. Nelson. 1999. Residential End Uses of Water. Water Research Foundation, Denver, CO.

flushes per person per day has stayed the same. The average number of minutes spent in the shower has likewise stayed the same. The average faucet use per person per day has also stayed the same. Subsequent analysis on shower patterns using the same Residential End Uses of Water data sets found "on average, people do not compensate for lower flow rates by increasing the duration of their shower and that lower flow rate showerheads do, on average, result in a lower overall shower volume".[6]

WaterSense has also driven performance improvement for showerheads. ASME industry standards for showerheads have been made more rigorous directly as a result of WaterSense with the addition of spray force and spray coverage test requirements taken directly from the WaterSense specifications.

Under section "V. Request for Information on Consumer Satisfaction" of the April 10 Federal Register Notice it states the following (emphasis added):

> "Understanding consumer satisfaction is important to the EPA as the Agency seeks to ensure that our performance criteria review is in fact **ensuring that labeled products are meeting the same standards as products on the market before the WaterSense label was adopted**."

This statement is problematic for several reasons. First, the statement correctly states that products that achieve the WaterSense label are meeting different standards than products that do not receive the label. Both then and now, all plumbing products and fixtures must meet the same set of basic national product standards established by ASME/CSA A112.19.2-2013/CSA B45.1-13 for fixtures and ASME A112.18.1-2018/ CSA B125.1-18 for fittings. Since 2013, however, the requirements contained within the WaterSense specifications for plumbing products have been incorporated into the relevant ASME/CSA standards. As a result, certification to the national product standard can also result in certification to the WaterSense specification if the manufacturer so desires.

Appendix A shows the current standards that all tank-type toilets must meet in 2020 along with a history of these specifications since 2003.

Second, the statement wrongly implies that customer satisfaction for plumbing fixtures was higher before 2006 when the WaterSense label was adopted and that products met a different standard back then. The tremendous success and popularity of WaterSense-labeled products (described above) is due in large part because WaterSense specifications include measurable performance requirements that result in products that work better for consumers than the products they had before. Achieving the WaterSense label requires that products be tested to a higher standard, and this statement wrongly implies that these don't meet the same

[6] Gauley, B. and J. Koeller. 2017. How Showerhead Flow Rates Impact Shower Duration and Volume. www.map-testing.com

minimum basic standards as other fixtures. The confusion evident in this statement in the Federal Register should be corrected.

4. Comments on EPA's recent review of the WaterSense program.

The April 10 Federal Register Notice also included a summary of the review of WaterSense product performance criteria, conducted as required under the authorizing legislation under the America's Water Infrastructure Act (AWIA) of 2018. Based on this review, the EPA made the decision not to revise any specifications.

While we offer no comments on the EPA's decision not to revise any specifications at this time, we nonetheless believe that it is important that specifications move forward and advance over time, based on adequate study and research. WaterSense product specifications should keep up with changing times and technology.

Appendix A – History of Tank-Type Toilet Standards 2003 – 2013

ASME/CSA National Product Standard - Water Closets (toilets) - 2003 to today

	Current Standard		2013 Standard		2008 Standard		2003 Standard	
	ASME A112.19.2-2018/CSA B45.1-18		ASME A112.19.2-2013/CSA B45.1-13		ASME A112.19.2-2008/CSA B45.1-08		ASME A112.19.2-2003	
	Pro-cedure	Requirements	Pro-cedure	Requirements	Pro-cedure	Requirements	Pro-cedure	Requirements
Water consumption	**7.3**	Maximum flush volumes: Low consumption models: 1.6 gal High-Efficiency models: 1.28 gal Dual-flush models-full flush*: 1.6 gal	**7.4**	Maximum flush volumes: Low consumption models: 1.6 gal High-Efficiency models: 1.28 gal	**7.4**	Maximum flush volumes: Water-saving models - 3.5 gpf Low-consumption models: 1.6 gal High-Efficiency models: 1.28 gal	**8.4**	Two thresholds for maximum flush vol.: Water-saving water closets - 3.5 gpf Low-consumption water closets - 1.6 gpf
Granule and ball test	**7.5**	2500 granules in bowl - not more than 125 granules visible after flush. 100 Nylon balls (0.25 in. diameter) in bowl - not more than 5 balls visible after flush	**7.5**	2500 granules in bowl - not more than 125 granules visible after flush. 100 Nylon balls (0.25 in. diameter) in bowl - not more than 5 balls visible after flush	**7.5**	2500 granules in bowl - not more than 125 granules visible after flush. 100 Nylon balls (0.25 in. diameter) in bowl - not more than 5 balls visible after flush	**8.5**	2500 granules in bowl - not more than 125 granules visible after flush. 100 Nylon balls (0.25 in. diameter) in bowl - not more than 5 balls visible after flush
Surface wash test (ink line test)	**7.6**	Ink line around interior circumference of bowl 1 inch below rim - after flushing, remaining line = 2-inch maximum; no segment more than 0.5 inch	**7.6**	Ink line around interior circumference of bowl 1 inch below rim - after flushing, remaining line = 2-inch maximum; no segment more than 0.5 inch	**7.6**	Ink line around interior circumference of bowl 1 inch below rim - after flushing, remaining line = 2-inch maximum; no segment more than 0.5 inch	**8.6**	Ink line around interior circumference of bowl 1 inch below rim - after flushing, remaining line = 2-inch maximum; no segment more than 0.5 inch
Mixed media test	**TEST DELETED IN 2018 >>>>**		**7.7**	20 sponges and 8 kraft paper balls (15 lb. paper) in bowl. After flushing, at least 22 sponges/paper balls fully discharged	**7.7**	20 sponges and 8 kraft paper balls (15 lb. paper) in bowl. After flushing, at least 22 sponges/paper balls fully discharged	**8.7**	20 sponges and 8 kraft paper balls (15 lb. paper) in bowl. After flushing, at least 22 sponges/paper balls fully discharged
Drainline transport	**7.7**	100 polypropylene balls (0.75-in. diameter) in bowl. After flushing, average distance traveled in plastic drainline at least 40 ft.	**7.8**	100 polypropylene balls (0.75-in. diameter) in bowl. After flushing, average distance traveled in plastic drainline at least 40 ft.	**7.8**	100 polypropylene balls (0.75-in. diameter) in bowl. After flushing, average distance traveled in plastic drainline at least 40 ft.	**8.8**	100 polypropylene balls (0.75-in. diameter) in bowl. After flushing, average distance traveled in plastic drainline at least 40 ft.
Waste extraction test (MaP test procedure)	**7.9**	350 gram minimum waste extration	**7.10**	350 gram minimum waste extration	**<<<<< REQUIREMENTS ADDED IN 2013**			
Consistent water level test (non-pilot-type fill valves only)	**7.10**	Maintain tank water level at ± 0.5 inches	**7.11**	Maintain tank water level at ± 0.5 inches				
Fill valve shutoff integrity test with increased water pressure (non-pilot-type fill valves only)	**7.11**	Maintain tank water level at ± 0.5 inches at 20 to 80 psi	**7.12**	Maintain tank water level at ± 0.5 inches at 20 to 80 psi				
Adjustability test for tank-type gravity-fed toilets	**7.12**	Single-flush maximum = 1.68 gal Dual-flush maximum = 2.0 gal (full) and 1.4 gal (reduced)	**7.13**	Single-flush maximum = 1.68 gal Dual-flush maximum = 2.0 gal (full) and 1.4 gal (reduced)				

***-Maximum flush volume of 1.1 gal for the reduced flush is specificed in ASME A112.19.14-2013_R2018, section 3.2.2**

Commenter: Mary Ann Dickinson, President and Chief Executive Officer
Affiliation: Alliance for Water Efficiency (AWE) et al.
Comment Date: July 22, 2020
Document ID: EPA-HQ-OW-2020-0026-0110

Comment Text:

Alliance for Water Efficiency submits the following letter as a comment. Letter 2 of 3

Attachment

See pages 283 through 286.

July 22, 2020

Mr. Andrew Wheeler
Administrator
US Environmental Protection Agency
Washington, DC

RE: Comments on Docket ID No. EPA-HQ-OW-2020-0026
Request for Information on the WaterSense® Program

Dear Administrator Wheeler:

The Alliance for Water Efficiency (AWE) writes to express support for the WaterSense® program, and for the integrity of WaterSense product specifications. AWE is filing two letters to this Docket; this letter pertains specifically to the issue of maintaining showerhead flow rates.

The WaterSense specification for showerheads has been designed to provide the following: improved showerhead performance testing; increased water savings from a lower flow rate than the federal standard; and energy savings resulting from the additional conserved hot water. Since the WaterSense showerhead specification was adopted in 2010, labeled showerheads have provided demonstrated water and energy savings, and will continue to do so into the future due to a transformed market. WaterSense labeled showerheads use 2.0 gallons per minute (gpm) or less, and meet the American Society of Mechanical Engineers testing procedures (ASME A112.18.1/CSA B125.1). The development of the WaterSense showerhead specification has also helped increase the rigor of ASME testing procedures with the addition of spray force and spray coverage test requirements.

The savings achieved by the WaterSense showerhead specification are significant, and both water and energy use have been reduced. But AWE is concerned that there might be a proposal to increase the specification flow rate from the current 2.0 gpm, or even increase the flow rate in the federal standard of 2.5 gpm. To provide some perspective on the importance of the water and energy savings, AWE has analyzed the future impact that might result if showerhead flow rates were raised, using data describing the installed base of showerheads in 2011-2012 from the Residential End Uses of Water Study[1] which has documented actual flow rates in the field. Based on projections for new development and for existing home showerhead replacements, AWE estimates that 2.5 gpm showerheads provide 11 billion gallons per year in water savings and 5 trillion Btu per year in energy savings. Ultra-efficient showerheads (<1.6 gpm) provide 19 billion gallons per year

[1] Residential End Uses of Water Study, 2016 Update. Water Research Foundation.

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in water savings and 9 trillion Btu per year in energy savings. These are significant savings; in ten years the savings for 2.5 gpm showerheads at the federal standard alone accumulate to the equivalent of supplying 1 million homes with water and 670,000 homes with energy.

Thus, AWE strongly supports maintaining the existing federal showerhead flow rate standard and WaterSense showerhead specification at the current levels. The attached memo explains our analysis.

Sincerely,

Mary Ann Dickinson
President and CEO

Analysis of Water and Energy Savings from Showerhead Flow Rates

The Alliance for Water Efficiency (AWE) analyzed the water and energy savings coming from existing showerhead flow rates and possible changes to them. The Federal standard specifies a maximum flow rate of 2.5 gallons per minute (gpm). The WaterSense showerhead specification specifies a maximum flow rate of 2.0 gpm. Our analysis used data describing the installed base of showerheads in 2011-2012 from the Residential End Uses of Water Study,[2] which has documented actual flow rates in the field. Because ultra-efficient showerheads can go as low as 1.5 gpm or lower, the field data from the Residential End Use Study showed an average flow of 1.6 gpm or less for these showerheads. Thus, it is this number that AWE used in the analysis.

AWE estimates that showerheads are installed in slightly more than one million new homes and replaced in approximately 9.7 million existing homes each year, or a total of 10.8 million homes. These estimates are based on the following:

- New homes: Slightly more than one million occupied housing units are added to the United States housing stock annually.[3]

- Existing homes: The annual replacement rate of showerheads has been estimated to range from 5% to 10% (California Energy Commission, 2015). Currently, there are approximately 122 million occupied housing units in the United States.[4] Assuming an average of 2 showerheads per housing unit, there are approximately 244 million installed showerheads, of which between 12 and 24 million are replaced each year. This is equivalent to showerhead replacement in 6 to 12 million homes each year. For this analysis, we use the midpoint of the range, or 9.7 million homes.

Table 1 shows the national-level estimates of water and energy savings, assuming existing and new homes installing showerheads were fitted with either efficient or ultra-efficient showerheads. Water savings are 11 billion gallons for efficient showerheads and 19 billion gallons for ultra-efficient showerheads. Energy savings are 5 trillion Btu for efficient showerheads and 9 trillion Btu for ultra-efficient showerheads. For a sense of magnitude of this savings, it is enough water to serve between 100,000 and 171,000 homes and enough energy to serve between 67,000 and 115,000 homes.[5]

Table 2 shows the national-level estimates of cumulative water and energy savings assuming existing and new homes installing showerheads were fitted with either efficient or ultra-efficient showerheads.

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[2] Residential End Uses of Water Study, 2016 Update. Water Research Foundation.

[3] Based on U.S. Census, American Community Survey, 2013-2018 1-year occupied housing unit estimates (data.census.gov, Table DP04).

[4] Ibid.

[5] According to EPA and the U.S. Energy Information Administration, the typical home in the United States uses approximately 110,000 gallons of water and 77.1 million Btu annually.

Table 3 shows the number of homes that could be served by these savings. After 5 years, water savings would be sufficient to serve between 500,000 and 855,000 homes and energy savings would be sufficient to serve between 335,000 and 575,000 homes. After 10 years, water savings would be sufficient to serve between 1,000,000 and 1,710,000 homes and energy savings would be sufficient to serve between 670,000 and 1,150,000.

Table 1. National-Level Estimate of Annual Water and Energy Savings for Efficient and Ultra-Efficient Showerheads

Showerhead Efficiency	**Water Savings (Billion Gallons)**	**Energy Savings (Trillion Btu)**
Efficient Showerhead Retrofit (flow rate < 2.5 gpm)	11	5
Ultra-efficient Showerhead Retrofit (flow rate < 1.6 gpm)	19	9

Table 2. National-Level Estimate of Cumulative Annual Water and Energy Savings for Efficient and Ultra-Efficient Showerheads

	Annual Water Savings (Billion Gallons)		**Annual Energy Savings (Trillion Btu)**	
Showerhead	**Efficient**	**Ultra-Efficient**	**Efficient**	**Ultra-Efficient**
After 1 year	11	19	5	9
After 5 years	55	95	25	45
After 10 years	110	190	50	90

Table 3. National-Level Estimate of Savings in terms of Number of Homes

	Number of homes that could be served by water savings		**Number of homes that could be served by energy savings**	
Showerhead	**Efficient**	**Ultra-Efficient**	**Efficient**	**Ultra-Efficient**
After 1 year	100,000	171,000	67,000	115,000
After 5 years	500,000	855,000	335,000	575,000
After 10 years	1,000,000	1,710,000	670,000	1,150,000

Commenter: Mary Ann Dickinson, President and Chief Executive Officer
Affiliation: Alliance for Water Efficiency (AWE) et al.
Comment Date: July 22, 2020
Document ID: EPA-HQ-OW-2020-0026-0111

Comment Text:

Alliance for Water Efficiency submits the attached letter as a comment. 3 of 3

Attachment

See pages 288 through 293.

MEMO

April 29, 2020

From: Peter Mayer, P.E., Principal, WaterDM

To: Alliance for Water Efficiency

Summary of Conclusions

- The April 10, 2020 Notice in the Federal Register requested information, data, surveys and studies to help assess customer satisfaction with WaterSense labeled products which could help inform future product specification.
- While not addressing customer satisfaction or WaterSense products directly, the 1999 and 2016 Residential End Uses of Water Studies measured how people use water at home in their daily lives. The studies reveal how frequently people use toilets and faucets and clothes washers and to what extent those behaviors have changed over time. This information can be an indicator of customer satisfaction.
- The results for toilet flushing, showering, and faucet use show that over 15 years, fixtures themselves have become more efficient, but the use of these fixtures has not changed.
  - The average volume of water used to flush a toilet has decreased, but the average number of flushes per person per day has stayed the same.
  - The average number of minutes spent in the shower has stayed the same.
  - The average faucet use per person per day has stayed the same.

Why a Residential End Use Study Memo?

The Alliance for Water Efficiency requested that WaterDM prepare a memo presenting key results from the Water Research Foundation's paired residential end uses of water studies (REUWS) published in 1999 and 2016, particularly as they relate to toilets, showers, and faucets. This information is provided to improve understanding of usage patterns over time for the purpose of responding to the Notice of Recent Specifications Review and Request for Information on the WaterSense Program published on April 10, 2020 in the Federal Register.

What Are the Residential End Uses of Water Studies?

The Residential End Uses of Water Studies are a series of research studies sponsored by the Water Research Foundation and a consortium of utilities. The 1999 *Residential End Uses of Water* (Mayer P. and DeOreo W., et. al. 1999) provided detailed information on residential water use patterns and efficiency levels from 1,187 single-family homes from random samples selected across 14 water providers. The 2016 *Residential End Uses of Water, Version 2* (DeOreo W. and Mayer P. et. al. 2016) provided an updated and expanded assessment of water use from 762 single-family households from random samples selected across 9 water providers and presents detailed information and data about how water use has changed during the 15-year period. The WaterSense program was established in 2006 in the time between these two research projects.

Do the Residential End Uses of Water Studies Address Customer Satisfaction?

The Residential End Uses of Water Studies did not specifically survey participants about "satisfaction" or "enjoyment" of fixtures like toilets, showerheads, and faucets. Rather the study measured how people use water at home in their daily lives. The studies reveal how frequently people use toilets and faucets and clothes washers and to what extent those behaviors have changed over time.

THE RESULTS FROM THE LARGEST NATIONAL STUDIES SHOW THAT TOILET FLUSHING FREQUENCY HAS STAYED THE SAME, EVEN AS FLUSH VOLUMES HAVE BEEN REDUCED THROUGH PLUMBING CODES AND STANDARDS AND THE VOLUNTARY WATERSENSE PROGRAM.

These successive residential end use studies offer the best available measurements of key metrics such as the frequency of toilet flushing, the duration of shower and faucet usage, and the flow rate of these fixtures. This information provides valuable insight about water use patterns, and indicates if people are using fixtures the same or more frequently as the flow rates and flush volumes of the fixtures have changed. This information can be a strong indicator of customer satisfaction.

Toilet Flushing

American households are equipped with thousands of different makes and models of toilets that have been installed over many years. The results from the Residential End Uses of Water studies (Table 1) show that toilet flushing became substantially more efficient between 1999 and 2016, but significantly, people flushed the toilet almost exactly the same amount. The average toilet flush volume decreased from 3.65 gallons per flush in 1999 down to 2.6 gallons per flush in 2016, but the number of flushes per person per day stayed the same. From a flushing frequency perspective, Americans are just as satisfied with their toilets that used an average of 2.6 gallons per flush as they were with their toilets that used an average of 3.65 gallons per flush.

Figure 1 presents the frequency distribution of toilet flush volumes from the two studies. High volume toilets flushing at 4 gallons per flush or more were far more common in the 1999 data set. Low volume toilets flushing below 2 gallons per flush were far more common in the 2016 data set. Flush volume has changed, but flushing behavior remained the same. If customers were experiencing problems with lower volume toilets, it would be evident from these data, but that is not the case. The results from these two major national studies show that toilet flushing frequency has stayed the same, even as flush volumes have been reduced through plumbing codes and standards and the voluntary WaterSense program.

Table 1: Toilet summary from 1999 and 2016 REUWS[1]

	1999 REUWS	2016 REUWS
Number of houses	1187	762
Average flushes/household/day	12.4	13
Average flushes per person per day	**5.05**	**5.0**
Average flush volume	3.65 ± 0.06 gal	2.6 ± 0.01 gal
Average daily use for toilet flushing	45.2 gphd	33.1 ± 2 gphd
Median daily use for toilet flushing	43 gphd	29 gphd
% of Flushes < 2.2 gal	16%	48%
Average per capita toilet use (gpcd)	18.5	14.3

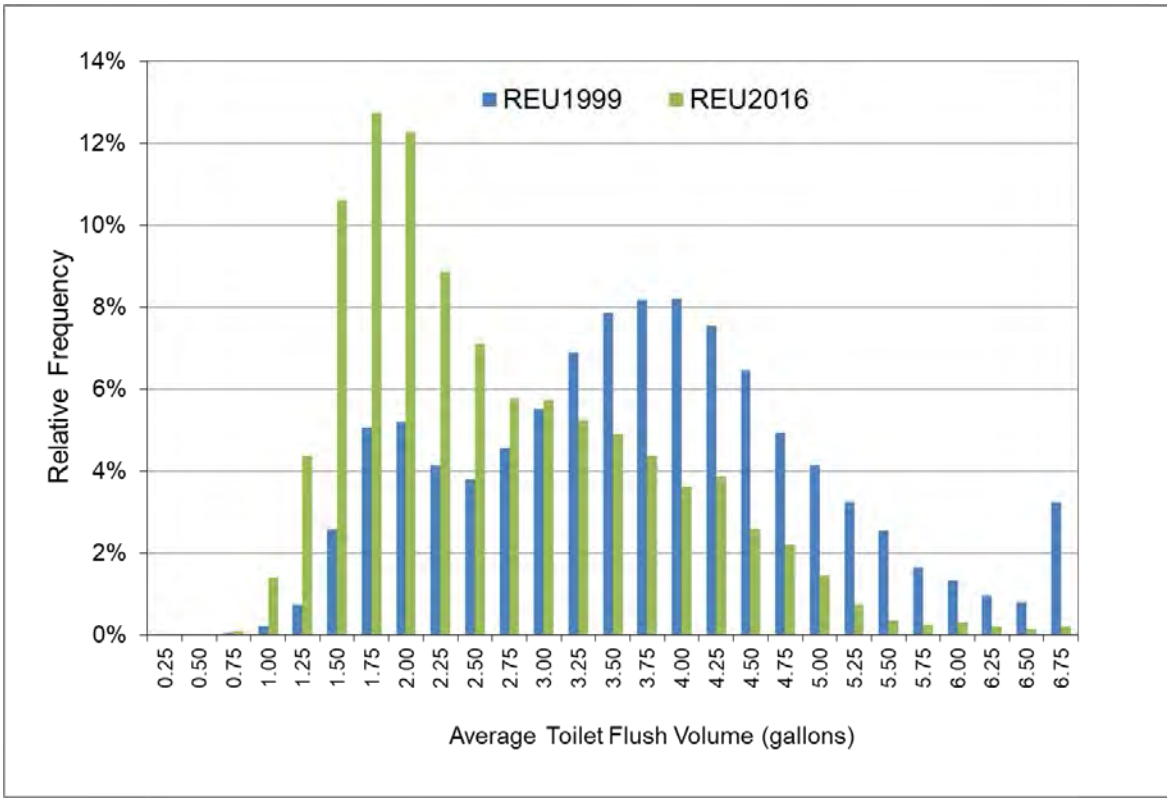

Figure 1: Frequency distribution of toilet flush volumes, 1999 and 2016 REUWS[1]

Showers

The second largest category of water use inside homes in these studies was for showering. On average there were roughly two showers per day taken in the homes that had an average duration of 8 minutes and used 16 gallons of water per shower. Results from the two studies are shown in Table 2. These statistics show a consistent pattern of use for showering over the years. People generally take a shower with a duration of 7.8 minutes that uses between 15 and

[1] Source: Water Research Foundation, Residential End Uses of Water, V2 (2016)

18 gallons (57 and 68 liters) of water. The data do suggest a small but perceptible decrease in the daily use and per shower use between the two REUWS studies, but it is not significant.

As with toilet flushing, showering behavior patterns did not change much over 15 years. Subsequent analysis on shower patterns using the same Residential End Uses of Water data sets was performed in 2017 by Bill Gauley and John Koeller. That research found "on average, people do not compensate for lower flow rates by increasing the duration of their shower and that lower flow rate showerheads do, on average, result in a lower overall shower volume" (Gauley and Koeller 2017).

The Gauley and Koeller report findings also shed light on the complexities associated with showering and trying to measure customer satisfaction. "While some people take longer showers and some take shorter showers, it seems that, in general, people tend to follow their own unique routine for showering regardless of the flow rate of the showerhead. In fact, it is possible that the few extra seconds spent showering at lower flow rates is primarily related to washing and rinsing hair" (Gauley and Koeller 2017).

Table 2: Shower summary from 1999 and 2016 REUWS[2]

	1999 REUWS	**2016 REUWS**
Number of houses	1187	762
Average showers/household/day	1.8	1.8
Average showers/person/day	0.66	0.69
Average shower volume	16.7 ± 0.3 gal	15.8 ± 0.5 gal
Average shower duration	**7.8 ± 0.14 minutes**	**7.8 ± 0.02 minutes**
Average flow rate for showers (gpm)	2.2 ± 0.04 gpm	2.1 ± 0 .04 gpm
Average per capita shower use	**11.6 gpcd**	**11.2 gpcd**

Faucets

Faucet use in the Residential End Uses of Water studies is comprised of a wide variety of water use events, which basically do not fall into any other recognizable category within established flow constraints and include kitchen, bathroom, hose bib, and utility sink faucets.

Faucet use is highly discretionary, so it is expected to see high numbers of these events and a high degree of variability in the statistics. Table 3 shows faucet statistics from the 1999 and 2016 end use studies. Faucet use has remained similar over the roughly 15-year period between studies, with the average per capita use for faucets only differing by 0.2 gpcd.

Similar to the findings with toilets and showers, there appear to be very few differences in faucet use behavior between the two studies, even more notable because the data were

[2] Source: Water Research Foundation, Residential End Uses of Water, V2 (2016)

collected 15 years apart from samples of entirely different homes in different cities. The fact that faucet use patterns did not change is clear indication that changing faucet fixture flow rates including the WaterSense specification have had little overall impact on behavior or faucet use.

Table 3: Faucet summary from the 1999 and 2016 REUWS[3]

	1999 REUWS	2016 REUWS
Number of houses	1187	762
Average faucet uses/person/day	15	20
Average faucet use volume	0.7 gallons per use	0.5 gallons per use
Average faucet duration	30 seconds	30 seconds
Average per capita faucet use	**10.9 gpcd**	**11.1 gpcd**

Conclusions

- The April 10, 2020 Notice in the Federal Register requested information, data, surveys and studies to help assess customer satisfaction with WaterSense labeled products which could help inform future product specification.
- While not addressing customer satisfaction or WaterSense products directly, the 1999 and 2016 Residential End Uses of Water Studies measured how people use water at home in their daily lives. The studies reveal how frequently people use toilets, showers, faucets and clothes washers and to what extent those behaviors have changed over time.
- These paired residential end use studies offer the best available measurements of key metrics such as the frequency of toilet flushing, the duration of shower and faucet usage, and the flow rate of these fixtures. This information provides valuable insight about water use patterns and indicate if people are using fixtures the same or more frequently as the flow rates and flush volumes of the fixtures have changed to become more efficient.
- The results for toilet flushing, showering, and faucet use show that over 15 years, fixtures themselves have become more efficient, but the use of these fixtures has not changed. The average volume of water used to flush a toilet has decreased, but the average number of flushes per person per day has stayed the same. The average number of minutes spent in the shower has stayed the same. The average faucet use per person per day has stayed the same.
- If customers were satisfied with their fixtures in 1999, they appear to be equally satisfied with their fixtures in 2016 and use them in pretty much the same way, even as the fixtures themselves have become more efficient.

[3] Source: Water Research Foundation, Residential End Uses of Water, V2 (2016)

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Comment Text:

The Green Builder® Coalition is a not-for-profit association dedicated to amplifying the voice of green builders and professionals to drive advocacy and education for more sustainable home building practices. We unite individual small builders, building professionals and suppliers to drive policy-change and education for more resource-efficient home building standards.

Since February 2014, The Coalition has been working on the development of the residential industry's first performance-based water rating system. Known by the name of WERS, our program has been in significant use for over 3 years. In that time, over 600 single-family properties have utilized the program. Data has been collected on a wide range of residential properties, from production to custom. We are seeing WaterSense products used in all types of single-family properties. It is important to note that where the WERS Program is being used, there is not a code requirement for WaterSense products, nor does the WERS Program require their usage. The installations are voluntary. It's hard to imagine a large number of homeowners would voluntarily request and regularly use these water-saving products if they weren't satisfied with them.

There are other notable organizations, some of which are our partners, who have already submitted information on the performance aspects of WaterSense products. We concur with their findings, and have the data to back up their claims. But the other element of customer satisfaction that might get overlooked is customer satisfaction of the water utilities. If we don't continue to utilize, and increase the use of, WaterSense products, we'll start to see water shortages in the American West. That will most certainly lead to unhappy customers.

We've all seen reports of rolling brownouts in the West when it comes to electricity. People can get by for a brief time without electricity. You can't have rolling "blue-outs". People need water. The management of this essential resource is critical to all facets of life, from public health to the economy. Once water leaves an area, all life leaves with it.

The WaterSense Program finally received Congressional authorization in 2018. That was long overdue, but it also wasn't by accident. This is a vital program to help industry, municipalities, utilities and the general public conserve one of the most precious elements on our planet. We cannot take water for granted, and we cannot dial back on conservation and efficiency efforts. The WaterSense Program must remain fully intact.

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