



**Response to Public Comments Received on the Draft
WaterSense® Specification for Tank-Type Toilets,
Version 2.0**

May 2024

Background

This document provides the U.S. Environmental Protection Agency's (EPA's) responses to public comments received on the draft *WaterSense Specification for Tank-Type Toilets*, Version 2.0 and associated draft summary of revisions. For the purposes of this document, the comments are summarized. The verbatim comments can be viewed in their entirety at https://www.epa.gov/system/files/documents/2024-03/ws-products-indoor-tank-type-toilets_draft-spec-v2_comments.pdf.

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I. General Comments on the Specification

I.1 General Specification Feedback and Support

Two commenters expressed support for EPA's draft Version 2.0 of the *WaterSense Specification for Tank-Type Toilets*.

- a. One commenter said that states look to WaterSense to establish appliance standards and that they expect the specification revision to create opportunities for water savings and reductions in utility bills for residents.
- b. One commenter expressed support for the revision so that tank-type toilets achieve the expected water savings as indicated by the WaterSense label. This commenter said that many single-flush toilets operate sufficiently at 1.28 gallons per flush (gpf) and noted that the full-flush mode of dual-flush toilets can also meet this maximum flush requirement without compromising performance. The commenter said that this revision would reinforce a high degree of confidence in the WaterSense label because many water conservation programs rely on WaterSense specifications to promote water efficiency.

Response: EPA thanks the commenters for their support.

I.2 Request to Classify Revision as a Minor Revision

Two commenters suggested that the draft specification should not be finalized as a major revision in order to avoid a six-year restriction on any subsequent major revisions to the specification as effectuated by *America's Water Infrastructure Act of 2018*.

- a. One commenter cited *America's Water Infrastructure Act of 2018*, which they said limits updates to WaterSense performance criteria rather than specifications in general, the latter of which may include multiple performance criteria related to water savings from multiple product types. This commenter said that the specification update should only be classified as a major revision with respect to dual-flush tank-type toilets, and the six-year restriction should not apply to single-flush tank-type toilets. This commenter suggested that when a specification contains multiple product types, EPA should individually consider whether a major revision has been made for each product type.
- b. One commenter suggested that while the proposed revision will generate some near-term water savings, greater water savings and consumer benefits could result from a revision that lowers the maximum flush volume requirement below 1.28 gpf for all tank-type toilets. This commenter noted that 11 states and the District of Columbia have adopted a maximum flush volume requirement of 1.28 gpf for all new tank-type toilets, which eliminates the advantage for purchasing toilets with the WaterSense label in those regions. They also pointed out that over 400 models of tank-type toilets are now reported to meet the voluntary requirements of Maximum Performance (MaP) PREMIUM, including a maximum flush volume of 1.1 gpf. The commenter recommended that EPA finalize the proposed revisions as a minor revision, create

separate specifications for single-flush toilets and dual-flush toilets, move forward with the other minor revisions besides the elimination of the effective flush volume, or defer all action until EPA is prepared to lower the maximum flush volume.

Response: EPA acknowledges that the publication of Version 2.0 of this specification could limit the opportunity to revise the performance criteria for both single-flush and dual-flush tank-type toilets for six years, in accordance with *America's Water Infrastructure Act of 2018*. The *WaterSense Specification for Tank-Type Toilets* has historically included criteria for both single-flush and dual-flush toilets. EPA does not believe separate specifications are warranted because dual-flush and single-flush toilets are both categorized as residential tank-type toilets, intended for the same functional purpose, and use the same test methods. Additionally, EPA affirms its initial stance that the proposed updates constitute a major revision, because they will affect the certification status of many existing WaterSense labeled toilets.

EPA understands the commenters' interest in pursuing changes to the water efficiency criteria for single-flush toilets to achieve greater water savings. However, as indicated in the *Summary of Revisions to the WaterSense Specification for Tank-Type Toilets*, there are broad concerns from a variety of program stakeholders regarding the potential impacts that lower flush volume toilets could have on drainline transport and wastewater treatment system performance. EPA intends to coordinate with WaterSense partners to further explore these concerns and facilitate research that investigates how greater toilet water efficiency impacts user satisfaction, wastewater transport, and other related issues. Without a clear plan forward and timeframe in which this research will be completed, EPA does not want to delay revisions to the specification.

EPA appreciates the feedback from commenters and recognizes the benefit of developing separate specifications for different product categories in order to avoid limiting the frequency of revisions for the criteria of one product category when revising that of another. Therefore, in future specification development where there may be multiple product categories with distinct performance criteria or intended function, EPA will consider developing separate specifications so that criteria may be revised independently.

II. Comments on Section 2.0: General Requirements

II.1 Support for Consolidation of References to American Society of Mechanical Engineers (ASME) Standards

One commenter expressed support for the proposed removal of the reference to ASME A112.19.14, because applicable requirements are being incorporated into a different ASME standard. The commenter said they considered this revision appropriate and consistent with the goal of aligning single- and dual-flush toilet specifications.

Response: EPA thanks the commenter for their support.

III. Comments on Section 3.0: Water Efficiency Criteria

III.1 Support for the Elimination of the Effective Flush Volume Calculation for Dual-Flush Toilets and Related Comments

Three commenters expressed support for the elimination of the effective flush volume calculation for dual-flush toilets.

- a. One commenter agreed with the rationale that many users select the wrong flush mode due to confusion when using dual-flush toilets.
- b. Two commenters expressed support for the standardization of the requirements for these products. However, one commenter said that the usage ratio on which the effective flush calculation was based (two reduced flushes to one full flush) is greater in application and contributes to higher water savings than EPA suggests.

Response: EPA thanks the commenters for their support and invites them to refer to the *WaterSense Notice of Intent to Revise the Specification for Tank-Type Toilets* for more information on effective flush volume calculation and the studies referenced to support its elimination.

III.2 Concerns Regarding the Elimination of the Effective Flush Volume Calculation

One commenter expressed concern that the proposed revisions will not highlight the advantages of dual-flush toilets because of the assumption of a certain ratio of reduced flushes to full flushes.

Response: EPA clarifies that the elimination of the effective flush volume calculation also removes any assumption of a ratio of reduced flushes to full flushes. Regardless of whether users select the reduced-flush mode or full-flush mode more often, dual-flush toilets labeled under Version 2.0 of the specification will provide the expected 20 percent water savings associated with the WaterSense label.

Federal labeling and marketing requirements for dual-flush toilets already stipulate that the full-flush and reduced-flush volumes be specified separately from one another. While EPA is eliminating the effective flush calculation it previously used to measure efficiency of dual-flush toilets, this revision to the specification will not impact product marking and marketing requirements. Therefore, consumers of dual-flush toilets can still use information on the reduced-flush volume to select models that offer greater efficiency.

III.3 Suggested Changes to the Proposed Language of the Water Efficiency Criteria

One commenter suggested a change to the language of the proposed water efficiency criteria to clarify that only the criteria for dual-flush toilets are being revised. The commenter suggested the following changes shown in red text:

3.0 Water Efficiency Criteria

Water consumption shall be tested in accordance with ASME A112.19.2/CSA B45.1.

3.1 ~~For toilets with single-flush capabilities, the~~ manufacturer shall specify a rated flush volume for the toilet, which shall not exceed 1.28 gallons per flush (gpf; 4.8 liters per flush [Lpf]). The water consumption, determined through testing and evaluated in accordance with the sampling plan contained in 10 CFR 429.30, shall not exceed the rated flush volume.

3.2 For toilets with dual-flush capabilities, the manufacturer shall specify the rated flush volume of both the full-flush and reduced-flush modes, ~~neither of which shall exceed 1.28 gallons per flush (gpf; 4.8 liters per flush [Lpf]). The water consumption, determined through testing and evaluated in accordance with the sampling plan contained in 10 CFR 429.30, shall not exceed the rated flush volume. and the requirements of Section 3.1 shall apply.~~

Response: EPA agrees that the suggested language change clarifies the water efficiency criteria as it applies to single-flush and dual-flush toilets and has included this change, with minor editorial revisions, in the final specification revision.

IV. Comments on Appendix B: Transition Period

IV.1 General Comments on the Proposed Transition Period

One commenter acknowledged that as an operator of a toilet rebate program, they will need to coordinate with local retailers to notify them of the specification revision and guide them to the online WaterSense Product Search Tool. This commenter asked for clarification on when the Product Search Tool will be updated.

Response: On July 1, 2025, Version 2.0 of the specification will take effect, and EPA will designate any ineligible models that remain on the WaterSense Product Search Tool as delisted. Models will remain on the WaterSense Product Search Tool for six months following the date it was delisted. After December 31, 2025, these models will be removed from the WaterSense Product Search Tool. However, EPA will still be able to confirm the prior labeled status of models upon inquiries from consumers, utilities, or other interested parties.

While EPA does not determine the eligibility requirements of rebate and incentive programs, it encourages these programs to offer flexibility throughout the transition period. EPA also encourages this commenter to refer to the [transition documents](#) that EPA prepared in association with the final specification.

IV.2 Requests for Extension of the Proposed Transition Period

Two commenters requested an extension of the proposed timeline for the transition to Version 2.0 of the specification. The commenters said that the proposed revision will affect the certification status of nearly 75 percent of existing WaterSense labeled dual-

flush tank-type toilets. They expressed concern that it will take a significant amount of time to fill the void created in the market when these dual-flush toilets are no longer eligible to earn the WaterSense label. The commenters also suggested that EPA provide a guidance document for producers, retailers, and distributors.

- a. One commenter proposed that the specification take effect 18 months after the publication date, followed by a six-month grace period before the removal of discontinued products from the WaterSense Product Search Tool. This commenter suggested that a guidance document should clarify that this revision will only affect products manufactured on or after the effective date of the specification, and that discontinued products manufactured before the effective date may still be sold as WaterSense labeled products.
- b. One commenter requested an extended transition period but did not specify a timeline. This commenter suggested that a guidance document should clarify the status of WaterSense labeled products at each point in the outlined transition period and at each step in the production process.

Response: EPA has issued a document clarifying that the manufacture date of the product determines the version of the specification to which it must adhere to earn the WaterSense label. Tank-type toilets manufactured on or after the effective date of Version 2.0 of the specification must adhere to the requirements of Version 2.0 in order to earn the WaterSense label.

After discussing the transition timeline with Plumbing Manufacturers International and soliciting feedback from utilities and retailers, EPA has agreed to adjust the timeline that it initially proposed within the draft specification. Version 2.0 of the specification will take effect on July 1, 2025, more than a year following the publication date, followed by a six-month grace period during which ineligible products will be designated as delisted while they remain on the WaterSense Product Search Tool. After December 31, 2025, EPA will remove the delisted products from the WaterSense Product Search Tool. The full transition period will take place over more than 18 months and allows manufacturers, retailers, and utilities the necessary time to prepare for and comply with the requirements included within Version 2.0. EPA has issued [two documents](#)—a transition timeline agreement document and a partner guidance document—that outline important dates and requirements associated with the transition to Version 2.0.

V. Other Comments

V.1 Offer of Support for Additional Research Comments

One commenter expressed support that EPA intends to coordinate with WaterSense partners to research the broader impacts of lowering the maximum flush volume below 1.28 gpf. They agreed with EPA that more research is necessary to sufficiently explore the advantages and disadvantages of lowering the maximum flush volume. The commenter offered to assist and collaborate with EPA on this effort.

Response: EPA appreciates the commenter’s offer to coordinate with EPA to conduct further research on the impacts of lowering the maximum flush volume. EPA has not yet begun the research process but will communicate with program partners and other interested parties once this effort begins.