

Taylor Duran

From: Taylor Duran
Sent: Wednesday, June 17, 2026 8:45 AM
Subject: 2026 WEstand ROC Circulation of Comments
Attachments: 2026 WEstand ROC Circulation of Comments.pdf

Dear WEstand Technical Committee Members,

I have attached for your review all comments received by the initial ballot closing date. If you wish to respond, reaffirm, or change your vote after the review of comments, you may do so by **Friday, June 26, 2026**, as this is the final date for returning all ballots.

Any affirmative voters can change their vote. If you do not wish to change your vote, no action is required. If you wish to vote “negative” or wish to “abstain,” please include a technical reason for a negative vote and a reason statement for abstaining.

The Technical Committee ballot material for the subject documentation may be accessed via KAVI at the following link: [2026 WEstand Ballots on Comments](#)

Please note, you are voting on the Technical Committee actions from the recent meeting ([2026 WEstand TC Meeting Actions](#)).

Kind regards,

Taylor Duran

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From: Taylor Duran
Sent: Monday, June 8, 2026 9:02 AM
Subject: 2026 WEstand Initial Ballot Closing Date (Reminder)

Dear WEstand Technical Committee Members,

This is a friendly reminder that the due date for the “receipt of initial ballots” is **Friday, June 12, 2026**. All negative votes and comments received by this date will be circulated for your review and further consideration.

If you wish to respond, reaffirm, or change your vote after the review of comments, you may do so by **Friday, June 26, 2026**, as this is the final date for returning all ballots.

Thank you for your willingness to serve on this committee.

Kind regards,

Taylor Duran

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From: Taylor Duran
Sent: Friday, May 29, 2026 4:55 PM
Subject: 2026 WESTand Initial Ballots on Comments

Dear WESTand Technical Committee Members,

The Technical Committee ballot material for the subject documentation is now available and may be accessed via KAVI at the following link: [2026 WESTand Ballots on Comments](#)

Please note, you are voting on the Technical Committee actions from the recent meeting ([2026 WESTand TC Meeting Actions](#)). The voting options are as follows:

- If you **AGREE** with the Technical Committee action on an item, then click on **AFFIRMATIVE**.
- If you **DISAGREE** with a Technical Committee recommendation, then vote **NEGATIVE** and provide a reason statement for the negative vote. Reason statement must accompany all negative votes.
- If you are **ABSTAINING** on a Technical Committee recommendation, then vote **ABSTAIN** and provide a reason statement for abstaining. Reason statements must accompany all abstentions.

The initial close of ballots is **Friday, June 12, 2026**. All negative votes and comments received by this date will be circulated to the TC immediately after that to afford those who have already voted an opportunity to respond, reaffirm or change your vote after reviewing comments. The final date for returning all ballots is **Friday, June 26, 2026**.

Please note that the return of ballots is required in accordance with the [Regulations Governing Consensus Development of the WESTand](#).

Kind regards,

Taylor Duran

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2026 WESand ROC Circulation of Comments

| Ballot Name: | Item # 004 Comment 01 | |
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| Voter Name | Vote | Comments |
| Harlan, Richard | NEGATIVE W/COMMENT | The substantiation supports the proposed change. |
| Kehoe, Paula | NEGATIVE W/COMMENT | I agree with the other comments. |
| Nokhoudian, Taylor | NEGATIVE W/COMMENT | The definition provides a straightforward description that supports related provisions in the WESand. |
| Osann, Edward | NEGATIVE W/COMMENT | I agree with the proponent's substantiation. |

| Ballot Name: | Item # 006 Comment 01 | |
|---------------------|------------------------------|---|
| Voter Name | Vote | Comments |
| Harlan, Richard | NEGATIVE W/COMMENT | The proposed definition provides a clearer definition of "log reduction target." |
| Kehoe, Paula | NEGATIVE W/COMMENT | I agree with the other comments. |
| Lando, Pat | NEGATIVE W/COMMENT | The proposal includes important terms that provide a better definition. Specifically, the terms "parameter" and "minimum" are critical changes that should be accepted. |
| Lansing, John | NEGATIVE W/COMMENT | I agree with the other comments. |
| Nokhoudian, Taylor | NEGATIVE W/COMMENT | The proposed definition provides a clearer definition of "log reduction target." |
| Osann, Edward | NEGATIVE W/COMMENT | I agree with comment by Taylor Nokhoudian. |
| Thompson, Kyle | NEGATIVE W/COMMENT | This revised definition more accurately reflects the way the term is used in the WESand, compared to the original proposal. |

| Ballot Name: | Item # 008 Comment 01 | |
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| Voter Name | Vote | Comments |
| Cudahy, Michael | NEGATIVE W/COMMENT | I am in support of Kyle Thompson's lengthy opposition. |
| Harlan, Richard | NEGATIVE W/COMMENT | I agree with Kyle Thompson's eloquent rationale. |
| Nickelson, David | NEGATIVE W/COMMENT | I agree with Kyle Thompson's comments specific to the sizing of the overall plumbing system. While there is some discussion in the substantiation regarding the waste side of low-flow toilets, there is no discussion or accommodation for the supply side. As stated in the substantiation, the WESand is a stretch code and should have higher standards; however, in this case, it seems to focus only on a specific fixture while neglecting the supply side of the system. This raises concerns for me regarding pipe sizing and water age within the system. |
| Ribbs, Phil | NEGATIVE W/COMMENT | I am in support of Kyle Thompson's lengthy opposition. I concur with the initial statement made by the TC for rejecting this proposal. |
| Thompson, Kyle | NEGATIVE W/COMMENT | <p>PMI is opposed to this change because the proposed reduction from 1.28 to 1.1 gpf lacks sufficient field-based evidence demonstrating net benefits across the entire water cycle, including potable water quality, wastewater collection and treatment, infrastructure performance, and recycled water production.</p> <p>While the proponents correctly note that 1.1 gpf products are available in the marketplace and that manufacturers can and do achieve satisfactory fixture-level performance under laboratory test conditions, the question before the committee is not only whether such products can be manufactured and sold.</p> |

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| | | <p>The committee must also consider the broader impacts that a reduction in flush volume has on plumbing systems, wastewater collection infrastructure, water quality, public health, and overall system sustainability.</p> <p>The existing 1.28 gpf requirement already represents a significant advancement in water efficiency, (Federal mandates require 1.6 gpf) and 1.28 gpf water closets have been widely adopted throughout the U.S. and North America. Before reducing the flush volume further, the committee should require compelling evidence that the proposed change will not create unintended consequences elsewhere in the water cycle.</p> <p>The proposal also fails to adequately address the growing body of research documenting the effects of declining water use on drinking water quality and premise plumbing systems. Reduced fixture flows increase water age within both municipal distribution systems and building plumbing systems, leading to disinfectant decay, stagnation, biofilm formation, and increased risk of opportunistic waterborne pathogens. Researchers, water utilities, public health agencies, and building water quality experts have repeatedly identified reduced water turnover as a contributing factor to the growth of organisms such as <i>Legionella pneumophila</i> and <i>Pseudomonas aeruginosa</i>. Water conservation remains an important objective, but conservation measures should not be evaluated solely on fixture-level savings. The committee must also consider the impacts on maintaining safe, high-quality potable water throughout the distribution and premise plumbing systems that serve building occupants.</p> <p>Furthermore, reducing flush volumes contributes to increasingly concentrated wastewater streams, creating challenges for wastewater collection systems, treatment facilities, and water reuse programs. Lower flows result in higher concentrations of solids, nutrients, and contaminants in wastewater, increasing the potential for odor generation, hydrogen sulfide formation, corrosion of sewer infrastructure, solids deposition, and additional maintenance requirements. Numerous wastewater utilities throughout North America have reported the need for supplemental flushing and, in some cases, the addition of potable water to maintain adequate sewer velocities and system performance as flows decline. More concentrated wastewater also requires additional treatment effort, energy, and chemical inputs to achieve the high-quality effluent standards required for expanding recycled water and potable reuse programs.</p> <p>Any evaluation of additional water efficiency measures should therefore consider not only the reduction in potable water demand, but also the increased operational burdens imposed on downstream wastewater and water reuse infrastructure.</p> <p>Finally, WEstand provisions frequently serve as the technical foundation for future state and local regulatory actions.</p> |
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| | | <p>California's Green Building Standards Code (CALGreen) and Title 24 have historically relied upon IAPMO codes and standards as sources of technical precedent and justification for enhanced water-efficiency requirements.</p> <p>The California Energy Commission is currently evaluating a proposal under Docket 22-AAER-05 to reduce the maximum flush volume of water closets sold in California from 1.28 gpf to 1.1 gpf. Adoption of this proposal within WEstand is likely to be cited as evidence that a consensus body has thoroughly evaluated the subject and determined the requirement to be technically appropriate and environmentally beneficial.</p> <p>The committee's decision on this and other items extends beyond just a voluntary stretch code provision. Approval of this requirement will establish a precedent that influences future mandatory state regulations affecting millions of consumers, building owners, water utilities, wastewater agencies, and manufacturers.</p> <p>Such a change should not be adopted absent comprehensive field-based evidence demonstrating that the benefits outweigh the potential impacts on plumbing performance, public health, water quality, wastewater infrastructure, and recycled water production.</p> |
| Tseng, Aster | NEGATIVE W/COMMENT | I agree with Kyle Thompson's comment. |
| White, Charles | NEGATIVE W/COMMENT | I agree with Kyle Thompson's eloquent rationale. |

| Ballot Name: | Item # 032 Comment 01 | |
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| Voter Name | Vote | Comments |
| Harlan, Richard | NEGATIVE W/COMMENT | I agree with Phil Ribbs' logic. |
| Ribbs, Phil | NEGATIVE W/COMMENT | Although Public Comment #1 and Public Comment #2 result in the same new proposed language, the substantiation provided with Public Comment #1 is acute, precise, and verifiable. Whereas the substantiation provided with Public Comment #2 is incomplete and therefore inaccurate. |
| Tseng, Aster | NEGATIVE W/COMMENT | I agree with Phil Ribbs' comment. |

| Ballot Name: | Item # 032 Comment 02 | |
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| Voter Name | Vote | Comments |
| Harlan, Richard | NEGATIVE W/COMMENT | I agree with Phil Ribbs' logic. |
| Ribbs, Phil | NEGATIVE W/COMMENT | Although Public Comment #1 and Public Comment #2 result in the same new proposed language, the substantiation provided with Public Comment #1 is acute, precise, and verifiable. Whereas the substantiation provided with Public Comment #2 is incomplete and therefore inaccurate. |
| Tseng, Aster | NEGATIVE W/COMMENT | I agree with Phil Ribbs' comment. |

| Ballot Name: | Item # 088 Comment 01 | |
|---------------------|------------------------------|--|
| Voter Name | Vote | Comments |
| Harlan, Richard | NEGATIVE W/COMMENT | I agree with Taylor Nokhoudian's comments. |
| Kehoe, Paula | NEGATIVE W/COMMENT | I agree with Taylor Nokhoudian's comments. |

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| Nokhoudian, Taylor | NEGATIVE W/COMMENT | <p>There were technical and structural issues introduced during the ROP revision process, and internal consistency is needed within the standard.</p> <p>The ROP updates introduce inconsistencies between the provisional text and the associated tables, particularly with respect to monitoring methods and parameters. As written, the revisions allow certain reuse applications to rely on periodic grab sampling while simultaneously listing parameters that are inherently operational and intended for real-time observation. This creates ambiguity regarding whether the standard is requiring process monitoring, compliance verification, or both, and how those requirements are to be practically implemented.</p> <p>Updated language is needed to apply uniform monitoring parameters without regard to use case or monitoring method, resulting in requirements that are not technically meaningful when applied outside a continuous monitoring context. This misalignment reduces clarity for designers, installers, and authorities having jurisdiction, and increases the likelihood of inconsistent interpretation and enforcement.</p> |
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| Ballot Name: | Item # 088 Comment 02 | |
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| Voter Name | Vote | Comments |
| Harlan, Richard | NEGATIVE W/COMMENT | I agree with Taylor Nokhoudian's comments. |
| Kehoe, Paula | NEGATIVE W/COMMENT | I agree with Taylor Nokhoudian's comments. |
| Nokhoudian, Taylor | NEGATIVE W/COMMENT | <p>There were technical and structural issues introduced during the ROP revision process, and internal consistency is needed within the standard.</p> <p>The ROP updates introduce inconsistencies between the provisional text and the associated tables, particularly with respect to monitoring methods and parameters. As written, the revisions allow certain reuse applications to rely on periodic grab sampling while simultaneously listing parameters that are inherently operational and intended for real-time observation. This creates ambiguity regarding whether the standard is requiring process monitoring, compliance verification, or both, and how those requirements are to be practically implemented.</p> <p>Updated language is needed to apply uniform monitoring parameters without regard to use case or monitoring method, resulting in requirements that are not technically meaningful when applied outside a continuous monitoring context. This misalignment reduces clarity for designers, installers, and authorities having jurisdiction, and increases the likelihood of inconsistent interpretation and enforcement.</p> |

| Ballot Name: | Item # 088.01 Committee Comment | |
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| Voter Name | Vote | Comments |
| Nickelson, David | AFFIRMATIVE | I agree with the comments made by the negative voters that there are some issues with this language. |

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| | | However, I am voting affirmative because, as I read the attachment, the action from the committee was to reject. |
| Harlan, Richard | NEGATIVE W/COMMENT | I agree with the other comments. |
| Kehoe, Paula | NEGATIVE W/COMMENT | I agree with the other comments. |
| Nokhoudian, Taylor | NEGATIVE W/COMMENT | This updated language applies uniform monitoring parameters without regard to use case or monitoring method, resulting in requirements that are not technically meaningful when applied outside a continuous monitoring context. This misalignment reduces clarity for designers, installers, and authorities having jurisdiction, and increases the likelihood of inconsistent interpretation and enforcement. |
| Ribbs, Phil | NEGATIVE W/COMMENT | I agree with Taylor Nokhoudian's (San Francisco Public Utilities Commission) comments. |
| Tseng, Aster | NEGATIVE W/COMMENT | I agree with Taylor Nokhoudian's comments. |
| White, Charles | NEGATIVE W/COMMENT | I agree with the comments by Taylor Nokhoudian. |

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| Ballot Name: | Item # 093 Comment 01 | |
| Voter Name | Vote | Comments |
| Harlan, Richard | AFFIRMATIVE | I agree with David Nickelson that we need to avoid inconsistencies, but I still support the change. |
| Nickelson, David | NEGATIVE W/COMMENT | This comment now has an inconsistency with Public Comment #2 of this same item. In Public Comment #2, the committee amended Section A 103.7.2 (Ozone Systems) to add the phrase "or equivalent device" when discussing ORP sensors. However, in Public Comment #1 the committee did not take the same action for Section 1103.9.2 (Ozone Systems). This could lead to confusion as to whether equivalent devices are permitted in ozone systems. |

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| Ballot Name: | Item # 093 Comment 02 | |
| Voter Name | Vote | Comments |
| Harlan, Richard | AFFIRMATIVE | I agree with David Nickelson that we need to avoid inconsistencies, but I still support the change. |
| Nickelson, David | NEGATIVE W/COMMENT | This comment now has an inconsistency with Public Comment #2 of this same item. In Public Comment #2, the committee amended Section A 103.7.2 (Ozone Systems) to add the phrase "or equivalent device" when discussing ORP sensors. However, in Public Comment #1 the committee did not take the same action for Section 1103.9.2 (Ozone Systems). This could lead to confusion as to whether equivalent devices are permitted in ozone systems. |

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| Ballot Name: | Item # 104 Comment 01 | |
| Voter Name | Vote | Comments |
| Harlan, Richard | NEGATIVE W/COMMENT | The addition of this drawing containing the errors pointed out in discussion undermines the credibility of the rest of the standard. While I am not opposed to the intent, the drawing is wrong and needs to be revised before being resubmitted. |
| Majerowicz, James | NEGATIVE W/COMMENT | This would indicate that the valve should be an air admittance valve which is not currently included in the UPC. |

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| Nickelson, David | NEGATIVE W/COMMENT | I agree with comments from Phil Ribbs. The substantiation of this comment says the purpose of the valve is to admit air to break the siphon. This would indicate that the valve should be an air admittance valve which is not currently included in the UPC. |
| Ribbs, Phil | NEGATIVE W/COMMENT | I am casting a negative vote on this item for the following reasons: 1. There is no need for an air admittance valve (AAV), which is prohibited by the UPC and does not have an industry recognized standard of construction. Also, AAV will fail when subjected to pressure and therefore will leak. 2. There is no requirement for a vent on the discharge piping of the automatic washer terminating to the exterior. 3. The piping going outside is fine, except it is undersized. In my opinion, the drain pipe to the exterior should be a minimum of 1½ inches since it will receive the pressure discharge from the automatic washer. 4. The fitting at the change of direction from vertical to horizontal should be a medium sweep drainage fitting as required by the UPC. 5. Most importantly, I believe it is inappropriate to include a non-compliant plumbing diagram in a code or standard published by IAPMO. |
| Thompson, Kyle | NEGATIVE W/COMMENT | Full removal of the figures would be preferential to the inclusion of figures that promote the use of a product that conflicts with the UPC. |
| Tseng, Aster | NEGATIVE W/COMMENT | I agree with Phil Ribbs' comments. |
| White, Charles | NEGATIVE W/COMMENT | Phil Ribbs makes excellent points regarding the plumbing situation. Discussion of what is plumbing or what other jurisdictions allow is nonsense. The drawings are incomplete as they show an exterior cap, not glued on, and no direction of what happens after the cap blows off. I have concern for what the proper disposal of the wash wastewater will be, and relying on homeowners to make decisions as to contaminants contained on clothing is irresponsible. Saying no one got hurt yet is of little value when this application will be a long term situation with possibly multiple owners. |

| Ballot Name: | Item # 104 Comment 02 | |
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| Voter Name | Vote | Comments |
| White, Charles | NEGATIVE W/COMMENT | Phil Ribbs makes excellent points regarding the plumbing situation in Public Comment #1. Discussion of what is plumbing or what other jurisdictions allow is nonsense. The drawings are incomplete as they show an exterior cap, not glued on, and no direction of what happens after the cap blows off. I have concern for what the proper disposal of the wash wastewater will be, and relying on homeowners to make decisions as to contaminants contained on clothing is irresponsible. Saying no one got hurt yet is of little value when this application will be a long term situation with possibly multiple owners. |