



September 2, 2014

The Honorable Harry Reid
Senate Majority Leader
522 Hart Senate Office Building
Washington, D.C. 20510

The Honorable Mitch McConnell
Senate Minority Leader
317 Russell Senate Office Building
Washington, D.C. 20510

The Honorable Barbara Mikulski
Chair, Senate Appropriations Committee
503 Hart Senate Office Building
Washington, D.C. 20510

The Honorable Richard Shelby
Ranking Member, Senate Appropriations Committee
304 Russell Senate Office Building
Washington, D.C. 20510

Dear Senators Reid, McConnell, Mikulski and Shelby:

On behalf of the undersigned organizations, we would like to express our strong opposition to the Amendment #1046 filed by Representative Paul Gosar to H.R. 4923, *the FY 2015 Energy and Water Appropriations Bill*. This amendment would prohibit any federal funding for efficient toilet replacement programs to replace non-efficient toilets, programs which clearly save both water and energy. In our view, passage of this amendment would hamper water efficiency program efforts needed to offset serious water shortages that are being declared in 40 out of 50 states. This amendment would further eliminate the ability of the Federal government to assist disadvantaged communities from achieving continued documented water and energy savings that have already benefitted the nation.

The Alliance for Water Efficiency has calculated that 18.2 trillion gallons of water have already been saved by efficient toilets installed over the past twenty years. This is equivalent to the 20 year water use of the cities of New York, Chicago, and Los Angeles combined, no small amount of water. Additionally, the attached article from the July issue of the American Water Works Association's *Opflow* magazine clearly shows the positive impact of EPAct 1992, with an estimated 7 billion gallons per day of water being saved in the U.S. Retrofitting high volume toilets is one of the most cost effective water efficiency programs that exist, saving the consumer, the community water utility, and the nation valuable water and energy resources.

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To eliminate this program from funding in HR 4923 is a short-sighted act which ignores the very real water shortage issues plaguing communities across the country.

The undersigned organizations thank you for your leadership in opposing this amendment in any appropriations package.

Sincerely,



President and CEO
Alliance for Water Efficiency

Cc: The Honorable Paul Gosar
Cc: The Honorable Ron Wyden
Cc: The Honorable Lisa Murkowski
Cc: The Honorable Diane Feinstein

ORGANIZATIONS OPPOSING AMENDMENT #1046:

- Alliance for Water Efficiency
- American Rainwater Catchment Systems Association
- American Rivers
- Amy Vickers & Associates, Inc.
- Apalachicola Riverkeeper
- Cahaba River Society
- Calyx Sustainable Tourism
- Charles River Watershed Association
- Chattahoochee Riverkeeper
- City of Gallup, NM
- City of St. George, UT
- Cobb County Water System
- Cost Containment Engineering, Inc.
- CRVogel Consulting, LLC
- Forester Media Inc., Publisher, *Water Efficiency Magazine*
- Georgia Water Wise Council
- Inland Empire Utilities Agency
- International Association of Plumbing and Mechanical Officials
- Marin Municipal Water District
- Maximum Performance (MaP) Testing
- Medford Water Commission
- Municipal Water District of Orange County
- National Association of Water Companies
- Natural Resources Defense Council
- Neponset Watershed Association
- Niagara Conservation
- Pacific Institute
- PCR Resources
- Plumbing Manufacturers International
- SBW Consulting, Inc.
- Sligo Creek Resources
- Smith Consulting Architects
- STEMhero/MeterHero
- Terra Bella Water
- Texas Water Foundation
- Toto USA
- U.S. Water Alliance
- WasteWater Education 501(c)3
- Water Demand Management
- Water Efficiency Action Network of the Colorado River Basin
- Waterless Co., Inc.
- Western Resource Advocates

Low-Volume Plumbing Fixtures Achieve Water Savings

BY AMY VICKERS AND DAVID BRACCIANO

This column summarizes the latest findings and consumer responses to water-efficient plumbing fixtures as reported by water utilities and documented by industry and government research. Low-volume fixtures have helped the United States increase its water-use efficiency and led to the US Environmental Protection Agency (USEPA) WaterSense program.

The US Energy Policy Act of 1992 (EPAAct 1992), implemented in 1994, created the nation's first maximum water efficiency flow-rate requirements for four major plumbing fixtures (see Water Efficiency by the Numbers, below). The act-mandated maximum 1.6-gal/flush (gpf) standard for low-volume toilets was consistent with water-saving standards already adopted by several countries, including Japan, and more than a dozen US states.

Most early low-volume fixtures performed well, despite early reports of flushing problems with a few models. A few of the early 1.6-gpf models had to be re-engineered to correct design problems, which prompted USEPA WaterSense to create a third-party certification program for its labeled products.

REBATES AND INCENTIVES

Many utilities in the United States and Canada and their water conservation

staffs have worked tirelessly for more than 20 years to promote low-volume 1.6-gpf—and more recently, high-efficiency 1.28-gpf—toilets and other water-saving fixtures through rebate and installation programs. These initiatives quantifiably reduced indoor water use across North America. Passive product replacement (replacements initiated without incentives or government-based programs) also has contributed to reduced domestic water use.

Superior operating performance—good bowl clearing with one flush—provided by most 1.6-gpf toilets, compared with older high-volume 3.5-gpf toilets, has been documented repeatedly since the 1990s by industry and utility research studies of consumers, organizations such as Consumer Reports, and countless water utilities. Many US utilities have invested tens—and in some cases hundreds—of millions of dollars in toilet rebate and replacement programs.

Water and wastewater utilities financed incentives for accelerated installation of 1.6-gpf toilets based on projected water savings and feedback from consumers who consistently reported high levels of satisfaction with the flushing performance of 1.6-gpf toilets, often rated higher than that of old high-volume toilets.

PERFORMANCE AND CERTIFICATION

Today, an estimated 100 million 1.6-gpf toilets are installed in the United States. Consumers consistently report good performance and water savings often exceeding 50 percent, compared with older 3.5-gpf and higher-flush fixtures. Essentially, in most installations, 1.6-gpf toilets work well, saving significant quantities of water, as reported by numerous US water systems and several major studies.

Newer WaterSense-certified 1.28-gpf toilets and dual-flush toilets must pass rigorous product certification testing requirements, such as those established

CONSERVATION

WATER EFFICIENCY BY THE NUMBERS

The US Energy Policy Act of 1992 (EPAAct 1992), effective in 1994, mandated maximum water use for four major plumbing fixtures as follows:

- 1.6-gpf toilets
- 1-gpf urinals
- 2.5-gpm showerheads at 80 psi
- 2.5-gpm kitchen and bathroom faucets at 80 psi (later revised to a maximum of 2.2 gpm at 60 psi)

The national policy applies to fixtures installed in all new and renovated US homes and residential dwelling units as well as most commercial and nonresidential buildings and facilities (excluding prisons and a small number of other special uses). States and plumbing and building codes can adopt fixture flow rates more stringent than those mandated by EPAAct 1992, but they can't increase flow rates.

In recent years, thanks to manufacturer ingenuity and a need for increased efficiency, the US Environmental Protection Agency's WaterSense Program established more stringent water efficiency certification criteria than those required by EPAAct 1992. WaterSense certifications are voluntary, but they have been adopted into green plumbing codes and mandated in some states and locales. WaterSense's maximum fixture flow rates are

- 1.28-gpf toilets
- 1.5-gpm lavatory and bathroom faucets
- 2-gpm showerheads
- 0.5-gpf urinals in commercial buildings

Compared with the older, higher-volume fixtures they replace, water-efficient toilets, urinals, faucets, and showerheads meeting standards established by EPAAct 1992 and WaterSense yield water savings of 20–50 percent.

Amy Vickers wrote the US Energy Policy Act of 1992's water-efficiency standards for plumbing fixtures and is an engineer and water conservation consultant based in Amherst, Mass. David Bracciano is chair of AWWA's Water Conservation Division and a demand management coordinator for Tampa Bay Water (www.tampabaywater.org), Clearwater, Fla.

by the Maximum Performance (MaP) toilet-testing program. These toilets are being installed in record numbers.

WATER SAVINGS

National water savings attributable to 1.6-gpf toilets and other low-volume fixtures required by EAct 1992 are and continue to be unprecedented. An estimated 7 bgd of water—enough to supply seven cities the size of New York City—are being saved in the United States. Numerous residential end-use studies conducted for the Water Research Foundation and USEPA document these savings.

By 2020, fixture water-efficiency standards established by EAct 1992 and newer high-efficiency standards associated with WaterSense-certified plumbing

fixtures are projected to save more than 10 bil gal of water every day in the United States. These savings and reduced wastewater flows help downsize, delay, and in some cases eliminate the need for new or expanded infrastructure.

Like other conservation measures that save water and are quantifiably integrated into agency supply capacities, investments in large-scale water-efficient toilet replacement programs help lower utility operating costs and rein in future infrastructure costs. These reductions are passed to utility customers via fewer rate increases that otherwise would be needed for operating and capital improvement costs.

“More and more Americans are saving water every day through the use of

water-efficient fixtures,” said AWWA CEO David LaFrance. “Today, it is easy for all of us to conserve water without diminishing the effectiveness of our showerheads, dishwashers, clothes washers, and other devices that use water.”

LOOKING AHEAD

Consumer education about current and emerging water-efficiency technologies is essential for encouraging the public to adopt water-saving measures, which are vital to a sustainable water future. Following USEPA's WaterSense program (www.epa.gov/watersense) is one way to keep track of existing programs and technologies. Whether you're a water utility employee or customer, getting to know water conservation facts can yield valuable rewards. 



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