



Style That Works Better

Advanced Water Conservation Technology Saves Water, Improves Satisfaction in 21-Home Retrofit Test

“For the first time ever, I can say that I love my toilets,” -- Sarah Richards, Serenbe Community, Chattahoochee Hills, GA

Low flow delivered high satisfaction with at least 25 percent in water savings for 21 homeowners in two suburban Atlanta communities who volunteered to replace their existing plumbing products with high-efficiency WaterSense[®]-certified models.

If it comes as a surprise that people are finally happy with low-flow toilets, that was the point of this mass retrofit last fall that included replacing 71 toilets, 96 faucets and 55 showerheads in 71 bathrooms. “We want to convince homeowners, building professionals and legislators that water conservation doesn’t mean sacrifice,” said Tommy Linstroth, water-savings expert and principal at Savannah, GA-based Trident Sustainability Group. Linstroth was retained to measure pre- and post-water saving results to report them on his blog, www.RehydrateUS.org.

Georgia’s first licensed GreenPlumber[®], Nick Marine of Marietta, GA-based Marine Plumbing, installed toilets and bathroom faucets that save at least 20 percent more water and showerheads that save from 20 to 40 percent more than current standards. Nine volunteer families were recruited from the Serenbe community in Chattahoochee Hills, GA and 11 stepped up to the challenge from Chastain Lakes in Kennesaw, GA.

Funding and products for the test were supplied by American Standard Brands to demonstrate that the technology behind WaterSense-labeled products has greatly advanced consumer satisfaction with water-savers in the bathroom. WaterSense is administered by the federal Environmental Protection Agency (EPA) and modeled after the EnergySTAR[®] labeling program to help assure consumers that products will conserve and perform as promised. More details are available at www.epa.gov/watersense/.

Magic Potties and Turbine Showerheads

“We absolutely LOVE our new fixtures. Our showerheads seem to have better water pressure and we are conserving water now, which we weren't before,” reported Serenbe homeowner Dallas Nevins, two months after installation. “We have been super-pleased and surprised with how well the American Standard toilets flush.

“Having two young children, sometimes they use a whole roll of toilet paper for one sitting. So, in the past, we've had to pull the plunger out on more than one occasion. Since we have our new toilets, we've yet to run into a problem and have been ‘plunge-free,’” continued Nevins, an allied member of the American Society of Interior Designers (ASID).

“I can't tell any difference with the volume of water in the shower and sinks which is great...I was afraid I would get a dribble,” said Serenbe homeowner Tom Reed.

“Every 10-minute shower with a regular showerhead uses 25 gallons of water, Linstroth noted. “The FloWise® showerheads we installed during this test use up to 40 percent less water, but the spray feels strong because of a turbine that literally spins the water, giving it more force.” While showerheads are not yet part of the WaterSense labeling program, the American Standard FloWise showerhead received top performance ratings from a leading consumer magazine in 2009.

Most homeowner volunteers received the WaterSense-certified American Standard H2Option™, the first truly siphonic dual flush toilet where users select whether to use as little as 1.0 gallon of water or the maximum legal amount of 1.6 gallons per flush. H2Option has achieved high ratings on the independent Maximum Performance (MaP) test, an independent report of toilet bulk removal performance developed by John Kohler and Veritec Consulting and used by water utilities in the U.S. and Canada. MaP test results are available for free at www.cuwcc.org/MaPTesting.aspx.

“For the first time ever, I can say that I love my toilets,” said Serenbe homeowner Sarah Richards. “I feel very empowered when I get to make a choice about pushing one button or the other. The suction on the H2Option dual flush is superb.”

Nevin's children are fascinated by the two buttons on the H2Option toilet. “They call them the ‘magic potties,’” she reported.

Documenting the Water Savings – Not as Easy as it Sounds

Linstroth documented at least a 20 percent collective savings in overall water usage at Serenbe, a savings that has remained consistent over two months. Serenbe

homeowners had toilets that used up to 1.6 gallons per flush (gpf), bathroom faucets that had a flow-rate of 2.0 gallons per minute (gpm) and showerheads with usage not exceeding 2.5 gpm.

At Chastain Lakes, an older suburb built more than 20 years ago, Linstroth documented at least a 25 percent savings from the retrofit working with one month of water usage data. “We would expect results in Chastain to be higher, since there were still old toilets in those homes. The math alone would dictate a near 50 percent reduction using siphonic dual flush toilets in place of those old 3.5 gallon toilets,” Linstroth said.

“But our numbers get diluted because of all the other fixtures in the house - irrigation, clothes washing, dishwashing, etc., - they all bring down our totals.” Linstroth continued, noting this as the reason it is hard for homeowners to use their water bills to encourage water-saving behavior. Linstroth plans to release a second report later this spring after amassing more months of data from the participating homeowners.

Serenbe and Chastain: A Mix of New and Older Homes

A well-known community south of Atlanta, Serenbe is an eco-sensitive development where the majority of land is set aside for conservation. Homes at Serenbe were built within the last five years to EarthCraft House™ energy standards and include advanced water efficiency amenities such as a greywater treatment system that is used to irrigate Serenbe front yards.

“Water is already an important issue here in Georgia and in many states. We need to figure out how to respect water and reduce our usage,” said Garnie Nygren, Serenbe director of operations. “In all aspects of the house, it’s important for us to demonstrate to Serenbe residents how they can live with the same lifestyle, but reduce water usage.”

Serenbe’s management was most enthusiastic about supporting the American Standard test, in part to determine whether or not WaterSense-labeled plumbing products would meet their high performance standards for Serenbe’s future expansion.

Chastain’s involvement came about through “green” real estate agent and Chastain resident Peg Grady, a long time associate of the Marine Plumbing team. Skilled at retrofitting older homes for water efficiency, Marine Plumbing replaced 17 water pressure valves among the 11 Chastain homeowners to assure that each home’s

water pressure was maximized for the new technology used in WaterSense-certified toilets.

The training to receive *GreenPlumber* certification required Marine to take more than 35 hours of training and pass a rigorous exam. *GreenPlumbersUSA* is a national training and accreditation program that assists plumbers in understanding their role in the environment and assists consumers through water usage audits, tips on reducing usage, and guidance on current government rebates for plumbing fixtures. American Standard is a founding member of *GreenPlumbersUSA* www.greenplumbersusa.com.

Georgia's Governor Calls for a "Culture of Conservation" Backing New High-Efficiency Plumbing Standards – Rebates Available

The two communities were selected in Metropolitan Atlanta because the region is facing expensive changes in order to continue to meet drinking water demands of its four million residents. According to an August 2009 article in the region's *Creative Loafing* newspaper, Georgia officials estimate that conservation measures such as replacing existing fixtures with low-flow models are 27 times cheaper than building new reservoirs.

Last week, Georgia's Governor Sonny Perdue announced the Georgia Water Stewardship Act of 2010, which mandates the use of high-efficiency plumbing products such as the ones used to retrofit Serenbe and Chastain. Nationwide, many areas of the country are experiencing similar water shortage conditions. To encourage more use of water-saving plumbing fixtures, 15 states and numerous municipalities have rebates available for purchasing high-efficiency toilets, according to the American Standard rebate locator www.americanstandard.com/water-efficiency. Marine provided all Chastain residents with the correct paperwork to claim their rebates through the Cobb County Water System.

"At American Standard, our goal is to educate consumers that conservation can and does begin at home. By developing water-efficient, low-consumption toilets, faucets and showerheads that actually work, we are providing consumers with real choice in creating responsible bathrooms without sacrifice in style or performance," said Don Devine, American Standard president and chief executive officer, in announcing the company's recent \$1 million commitment to the Nature Conservancy (www.nature.org) to raise awareness of the benefits of freshwater efficiency.

"Our objective is to reduce overall water consumption by more than 18 billion gallons in the U.S., not just this year, but every year thereafter, through the installation of

water-efficient American Standard toilets, showers and faucets,” Devine continued. “This will save consumers money on water, reduce water treatment volumes and costs, and reduce the strain on our environment.”

Suggested list prices for the H2Option dual flush toilet start at \$349. Suggested list prices for the FloWise showerhead start at \$25 for the basic model and \$65 for the three-function FloWise showerhead. All American Standard faucets are WaterSense-certified and meet strict new low-lead requirements. American Standard water-saving products are available nationwide and online through leading retailers and plumbing wholesalers. To find a location near you, visit www.americanstandard.com.

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American Standard Brands is a leading North American manufacturer of a wide range of high quality kitchen and bath products including faucets, fixtures, furniture, vitreous china fixtures, cast iron sinks, whirlpool tubs and other related products. The company currently serves both the residential and commercial markets, employs more than 6,000 people in the U.S., Canada and Mexico and markets products under the American Standard[®], Crane[®], Eljer[®], Porcher[®], Jado[®] and Fiat[®] brands. American Standard Brands is an affiliated portfolio company of Sun Capital Partners with a minority interest held by Bain Capital Partners, Inc.