

## From the Agent

Have ever your heard Florida Water Star<sup>SM</sup>? It is a water conservation certification program for new and existing homes and commercial developments. This program was developed by the St. Johns River Water Management District in 2006 and became a statewide program in 2012. Through the Florida Water Star<sup>SM</sup> Program, our homes, business and communities can help save water, protect the environment, and be an inspiration to others to do the same. In this month's WET, I will introduce you some Florida Water Star<sup>SM</sup> standards and guidelines for indoor water efficiency. I hope you find the information helpful. Thanks for reading the WET. As always, you can also find more updated information on water and energy from the WET Facebook page ([www.facebook.com/marionwet](http://www.facebook.com/marionwet)).

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*For all types of construction seeking certification, applicants should work with either Florida Water Star<sup>SM</sup> staff or a Florida Water Star<sup>SM</sup> certifier early in the development process to minimize potential mistakes that could prevent certification.*

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Figure 1. Certification Process

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- Florida Water Star<sup>SM</sup> Indoor Criteria

# Florida Water Star<sup>SM</sup> Indoor Criteria

The Silver Residential criteria were pilot-tested in 2006, and the first house was certified in July 2006. Beginning Aug. 3, 2009, the program began offering an additional tier, Gold tier, which provides a higher standard for water efficiency and includes water-quality best management practices. More than 700 residences have been certified under the residential criteria. The qualifications points list for new and existing homes outline all the criteria that are considered during final inspection. These documents should be used as a guide for any project seeking certification. Following is the requirement for indoor water use.

- ◆ All fixture and appliance water supply connections are reinforced. This program criteria lists the materials that normally withstand long-term use as supply line connections. There is no single best material available, and any supply line may be subject to failure. Acceptable supply line materials are metal, metal braided, PEX and poly-braided. The only unacceptable materials are rubber or copper. Rubber hoses supplying water to clothes washers have poor reputations for long-term durability. As the rubber dries and becomes brittle, the hose becomes vulnerable to failure, which can cause significant damage, especially if unrecognized for extended periods such as during holidays or vacancies.
- ◆ A quarter turn or push-pull valve is used for all fixture and appliances supply lines. Multi-turn valves were often used in the past to supply fixtures and appliances in residential and commercial settings. Now quarter-turn and push-pull valves have increased in popularity and are frequently



Figure 2. Qualified appliance water supply lines come as either metal-braided (left) or poly-braided construction

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*In recent years, utilities have expressed a concern about the use of high-efficiency fixtures in Commercial/Institutional projects. The concern stems from a potential lack of drain-line carry, which occurs when the water volume is insufficient to carry waste through the drain line. This lack of drain-line carry most likely occurs when a building has only lavatories without showers or other higher-volume uses. Project developers should consult with their utilities when drain-line carry might be a concern.*

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used. A quarter-turn valve requires a single 90-degree turn of the valve stem to open or close the water flow. A push-pull valve requires a single push or pull to either open or close the flow of water. Both types of valves allow for occupants to quickly stop water from flowing. The use of quarter-turn or push-pull valves applies to two Florida Water Star<sup>SM</sup> categories: (a) toilet or sink supply lines and (b) appliance supply lines.

- ◆ All toilets are high-efficiency. The Energy Policy Act (EPAAct) of 1992 and Florida Building Code requires that both residential and commercial toilets not exceed 1.6 gallons per flush (gpf). Many toilet models on the market today reduce flush volumes below this standard. The requirement for Florida Water Star<sup>SM</sup> is that all toilets are 1.28 gpf with a MaP (United North American Requirements maximum performance) rating above 350 grams per flush. For information about MaP rating, please visit [MaP website](#).
- ◆ Single showerhead with flow rate of 2 gallons/minute or less. As established by EPAAct 1992 and as required by the Florida Building Code, showerheads may not exceed a flow rate of 2.5 gallons per minute (gpm). Many showerheads available today use less water than 2.5 gpm and offer a high-quality experience for the user. Large showers with multiple showerheads have become increasingly popular. A certified home can receive a variance for one additional hand-held shower head. For the purposes of this program, one shower stall floor measures 2,160 square inches (1.4 square meters).
- ◆ All lavatory sink faucets have flow rate of 1.5 gallons/minute or less. As established by EPAAct 1992 and required by the Florida Building Code, 2.2 gallons per minute (gpm) is the maximum flow rate for private lavatory faucets. Florida Building Code for plumbing limits the max-

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*The U.S. Environmental Protection Agency (EPA) WaterSense® program provides a majority of the fixture standards that are required for Florida Water Star<sup>SM</sup>. Launched in 2006, WaterSense® is an EPA-sponsored partnership program that seeks to protect the future of our nation's water supply by promoting water efficiency and enhancing the market for water-efficient products, programs and practices.*

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**Figure 3. Quarter-turn Valves (Left) and Push-pull Valves (Right)**

imum non-metering faucet flow rate for public lavatories to 0.5 gpm and the metering faucet flow rate to 0.25 gallons per metering cycle. In this category, all lavatory sink faucets will have a flow rate of 1.5 gpm or less or a Water-Sense® label.

- ◆ If the applicant chooses to install clothes washers and dishwashers, they must meet current ENERGY STAR® performance criteria. Federal standards (2009) for residential automatic dishwasher water use specify less than 6.5 gallons for a standard washer and less than 4.5 gallons for compact models. Residential automatic dishwasher water use efficiency is currently addressed by the federal ENERGY STAR® label and is limited to 4.25 gallons per cycle, when the machine is set on the “normal” setting. In order to qualify for a Florida Water Star<sup>SM</sup> home, ENERGY STAR® criteria have to be met. As with other appliance performance requirements, Florida Water Star<sup>SM</sup> requires an ENERGY STAR® label for clothes washers. ENERGY STAR® labels are awarded only to front-loading and top-loading clothes washers that have capacities of greater than 1.6 cubic feet (ft<sup>3</sup>).

Above is the requirement for a Silver Florida Water Star<sup>SM</sup> home. A Gold home has a stricter criteria. For more information about the criteria, please click [here](#).

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Figure 3. Water-efficient Dish Washer (Left) and Clothes Washer (Right)