

## Public Meeting (Webinar) on the WaterSense® Draft Water-Efficient Single-Family New Home Specification June 18, 2008

The U.S. Environmental Protection Agency (EPA) is developing a program that will address water efficiency in new homes. It uses existing WaterSense criteria for products and irrigation professionals and adds additional criteria for other water-related products and systems. To qualify for the WaterSense label, new homes must be built by a WaterSense builder partner and pass an inspection conducted by a certified inspector for WaterSense labeled new homes. Builders may join as WaterSense partners once the final specification is released. EPA is currently developing the inspection process and anticipates that the inspection could be conducted in a single, well-timed visit.

The goal for WaterSense labeled new homes is to reduce indoor and outdoor water usage and encourage community infrastructure savings. It is important to note that the draft specification is not intended to contravene local codes and ordinances. New homes must meet criteria in the following three areas: indoor water use, including plumbing fixtures and fittings, appliances, and other water-using equipment; outdoor water use, including landscape design and irrigation systems if installed; and homeowner education. The criterion applies to newly constructed single-family homes and townhomes, three stories or less in size.

Written comments for the new homes specification can be submitted to <[watersense-newhomes@epa.gov](mailto:watersense-newhomes@epa.gov)> by the extended deadline of **September 4, 2008**. Comments received during the comment period will be made public and a final specification will be issued after the evaluation of these comments. Please contact the WaterSense Helpline at <[watersense@epa.gov](mailto:watersense@epa.gov)> if you have any questions about this call or questions for the speakers.

### **General Questions**

**Q:** Is the certification process similar to the ENERGY STAR® program and how does someone become a certifier?

**A: John Flowers:** EPA is looking at ENERGY STAR's Residential Energy Services Network (RESNET) and other programs to make a final determination in setting standards for certification. EPA will develop an interim certification scheme and approach providers to see if they are interested in participating. More information will be available in future e-mails and on the WaterSense Web site once the certification process has progressed.

*Note: WaterSense intends to release a draft of the certification process for public comment, which will then be revised, if needed, and implemented without an interim phase. As above, more information will be communicated through e-mails and on the Web site.*

**Q:** Will the home receive a label once it is certified?

**A: John Flowers:** Yes, the home will receive a WaterSense label once it is certified. EPA is still in the process of determining what form the label will take.

**Q:** Is this program going to be geared primarily to publicly supplied homes given that one of the requirements is a pressure release valve (PRV) which is something that would not be put on a system supplied by well water?

**A: John Flowers:** The program is not limited to publicly supplied water but it is a focus as EPA is interested in reducing infrastructure costs. Homes that are supplied by well water are eligible and EPA will look at how the house pressure is addressed in that situation.

**Q:** How does a builder go about becoming a partner?

**A: John Flowers:** Once the specification is finalized, information will be available on the WaterSense Web site.

**A: Virginia Lee:** The builder partnership agreement will likely be similar to the current manufacturer agreement. You can view the manufacturer agreement on the WaterSense Web site at <[www.epa.gov/watersense/docs/partnership\\_manufacturers508.pdf](http://www.epa.gov/watersense/docs/partnership_manufacturers508.pdf)>.

**Q:** Are there plans to include requirements for sewer connections or stormwater runoff mitigation?

**A: John Flowers:** The issue of stormwater management was looked at and there are several features of the specification that help mitigate stormwater runoff problems. However, EPA felt it would be better to start with the WaterSense New Homes program and address a more comprehensive water management program or measures that could be included in the criteria at a later date after EPA has received comments in the draft specification on stormwater management.

**Q:** What is the governing definition of “water-efficient”?

**A: John Flowers:** WaterSense labeled products seek to be 20 percent more efficient than their counterparts in the marketplace.

**Q:** Who inspects and determines if a project meets the criteria set forth in the program?

**A: John Flowers:** These details are currently being worked out and as soon as the final specification is issued more details will be released.

**Q:** How will this program align with the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) for Homes specification? Will there be consistency between the two?

**A: John Flowers:** There is potential for some of the measures to have consistency and EPA will be in contact with LEED and the National Association of Home Builders (NAHB) in the future.

### **Indoor Plumbing**

**Q:** Are tankless water heaters included in the specification?

**A: John Flowers:** There is no requirement for a specific water-heating technology. Tankless water heaters are certainly allowed but their water-using capabilities should be taken into account.

**Q:** Is there a specification that will allow a greywater system to be incorporated in a WaterSense labeled new home?

**A: John Flowers:** EPA did not feel it could mandate a greywater system for every home. This is an expense and opportunity that may not be available to everyone due to state codes. This does not mean a greywater system cannot be installed as part of a WaterSense labeled new home.

**Q:** Why did EPA decide to use clothes washers that use 6 gallons per cycle or less when there are other products available that are more efficient?

**A: John Flowers:** EPA had to take several factors into consideration when determining the threshold for clothes washers including availability of products on a national level, sales, and ENERGY STAR compliance. EPA will consider using a lower water use product if more details can be provided in written comments.

**Q:** There is a concern with a potential lack of uniformity for flow rates for kitchen faucets and showerheads (e.g., the WaterSense New Homes requirement for a kitchen faucet is 2.5 gallons per minute [gpm] but some water conservation programs are giving out 1.5 gpm aerators.)

**A: John Flowers:** This issue was looked at and feedback from the stakeholder group was that there was a concern with specific uses for kitchen or utility faucets where anything lower than 2.5 gpm would be too time-consuming for these uses.

### **Outdoor Criteria**

**Q:** How is the 40 percent turf calculation taken into account for regional weather?

**A: John Flowers:** It does not take into account local regional weather. It is a criterion that was developed by examining the range of turf limitations in successful green home programs across the country.

**Q:** If a builder decides to go with the landscape design option 1 (section 4.1.1.1) does that mean that no additional criteria apply?

**A: John Flowers:** Yes, there is no specification or criteria on type of plants used.

**Q:** How did EPA come up with the 60 percent evapotranspiration (ET) number? What is the justification for such a low ET percentage allowance?

**A: John Flowers:** EPA was trying to get some comparability between the results for sections 4.1.1.1 and 4.1.1.2. The drafted methodology for calculating the water budget is expected to produce similar results as the 40 percent for the turf limitation.

**Q:** Where can people get a list of WaterSense irrigation partners?

**A: Roy Sieber:** A list of irrigation professionals can be found on the WaterSense Web site at <[www.epa.gov/watersense/pp/irrprof.htm](http://www.epa.gov/watersense/pp/irrprof.htm)>.

**Q:** What is EPA's current thinking on using the Smart Water Application Technologies (SWAT) protocol test as the gold standard for giving the WaterSense label to irrigation controllers? And what about issues like start times, cycle, and flow in section 4.2.2?

**A: Roy Sieber:** This is a separate issue being addressed by WaterSense.

**A: Joanna Kind:** The features in section 4.2.2 were proposed by the group that is working on the specification for the controller protocol and represent features that the group thought efficient controllers should have. The intent is when the specification for irrigation controllers is available it will become part of the WaterSense New Homes specification.

**Q:** The current controller specification in the document would not make allowance for a demand-based irrigation controller that self adjusts to site-specific weather conditions and/or soil moisture conditions. Is this an oversight or actual intent?

**A: John Flowers:** EPA is working with the irrigation industry to develop a specification for demand-based irrigation controllers and until that time we will go with the controller features developed by the Irrigation Association Task Force. The objective of the specification is to be more inclusive than exclusive and EPA will review this issue in the development of the final specification.

**Q:** Section 4.1.1.1 appears to apply to the total landscape area. What was the thinking in removing the cap?

*Note: An earlier draft of the specification included a cap of 1000 square feet of turf.*

**A: John Flowers:** EPA removed the cap because we wanted to add more simplicity to the program and identified a few technical issues associated with setting a cap on the total amount of turf allowed in a yard.

**Q:** Does a WaterSense labeled new home need to have a finished backyard?

**A: John Flowers:** Yes, the entire yard must be landscaped to meet either of the options.

### **Homeowner Education**

**Q:** There is concern about the statement that each builder will provide, develop, and create a manual for each homeowner. Would we see more of an impact if EPA set up a standard operational manual that offers all options and the builder can check off what they have provided?

**A: John Flowers:** EPA wanted to provide the option for builders to customize their package to reflect their best management practices. EPA will provide as many tools as possible to assist.

**Q:** Will EPA be rating products on a scale according to their performance?

**A: John Flowers:** No. This is a single level program designation and all the criteria are required to meet the specification and gain the WaterSense designation.

### **Other**

*Below are questions that were beyond the scope of the call but were recommended to be submitted via written comments.*

**Q:** Are the greywater systems factored into the irrigation calculation? If there is water being recycled does that affect the turf calculation?

**Q:** Why is the amount of water that can be wasted different depending on how you plumb your house? There should be one requirement no matter how you plumb the house. Why are there two different requirements?

**Q:** Various water heating technologies have various delay times between when the faucet is turned on and when hot water leaves the water heater. Those units with delays waste more water and this is not addressed by WaterSense. The waste that is generated via a delay is on the same order as what is specified in the plumbing. You need to account for that as you can double the waste depending on the water heater.

**Q:** If you put in a pressure-reducing valve device to regulate pressure, it acts as a check valve, resulting in the plumbing becoming a closed system. I recommend that an expansion tank should be required.

**Q:** Nothing that references mass precipitation rates or distribution uniformity is found throughout the specification, which means there is nothing that says you need to have sprinklers sectioned and zoned with equipment that is compatible with other equipment output. Shouldn't specification reference match mass precipitation rates and distribution in some way?

**Q:** I recommend including information in the specification regarding landscaping that addresses soil quality and quantity.

**Q:** What kind of consideration is being given to regional differences since this is a national certification program? There are regional differences to landscaping and some of the criteria seem to be too general.

**Q:** There are specific equipment limitations placed in certain sections of the document. Is there sensitivity that these may limit innovation as an industry going forward?

**Q:** If a landscaper does not use any water at all in the project, does that water allotment go back to the landscaping plans? Do pavers and artificial turf give the landscaper more water to work with in other areas? Can the definition be made clearer in the glossary section?

**Q:** Was there any thought to giving exemptions from some of these specific limitations if the irrigation system is supplied solely by a reclaimed water source (i.e., 40 percent limitation)?