

Make a splash about water

**TOO MANY WATER EFFICIENCY GUIDELINES ARE DROWNING DESIGNERS
WITH OPTIONS AND DILUTING PROGRESS ON THIS VITAL ISSUE.**

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Water is a natural resource that makes for highly regional circumstances—just ask Georgia, Tennessee, California, Nevada, New Mexico, and Arizona. Even if you live near the Great Lakes, the emphasis upon sustainability and resource conservation through advanced building design is timely and absolutely necessary.

Much of being green about water comes down to following codes, standards, and guidelines. Compared to energy efficiency, everyone seems to have their own idea of what constitutes water-use efficiency. As a result, there is a proliferation of water efficiency mandates, codes, specifications, standards, and guidelines throughout the U.S., which is largely unnecessary. Even after accounting for necessary regional differences that affect landscape design, irrigation, HVAC design and operation, and other water-using building elements, there are just too many differing green requirements for water.

In the residential sector, for example, there are at least three dozen sets of water efficiency requirements across the U.S. Most of these seem to have been developed by local or regional jurisdictions, sometimes with a limited understanding of what constitutes water-use efficiency in new building design.

Although the nonresidential sector has much fewer competing regulations and guidelines, the large number of existing and proposed green standards, codes, and guidelines could likewise be collected into one or two national standards and one or two sets of model codes.

For example, ASHRAE draft Standard 189.1 for High-Performance Buildings is competing in the marketplace with the Green Globes-Green Building Initiative (GBI), both of which are soon to be ANSI standards for green building. For model codes, the battle is between the International Assn. of Plumbing and Mechanical Officials (IAPMO) and the International Code Council (ICC), both of which are developing their own versions of green requirements.

The problem worsens when municipalities, states, and the water-utility industry ignore this work and go their own way. Product manufacturers and trade groups spend countless hours tracking all these initiatives so they can understand and meet the demands of the marketplace and manage their production. States and other code jurisdictions should adopt ANSI standards or model codes, which represent consensus-based decisions by the best minds in the business, rather than creating their own from scratch.

Regarding the proliferation of differing product and system requirements, the best answer is to have them align with the U.S. EPA's WaterSense program where applicable. The EPA launched the WaterSense product-labeling program in 2006 to promote water efficiency among U.S. consumers and design professionals. The WaterSense label is earned through third-party testing and independent certification to ensure products meet EPA's criteria for efficiency and performance. (No manufacturer self-certification!)

In 2009, WaterSense unveiled its first commercial standard, for high-efficiency flushing urinals, which has a 0.5 gal/flush maximum. When commercial products and design practices are released by WaterSense in 2010, they should be incorporated into green building codes and standards where applicable, thereby reducing or eliminating the variance among existing specifications.

I recommend that designers and specifiers become more proactive within the WaterSense program (www.epa.gov/watersense) and aid in the development of uniform codes and standards for water-use efficiency.

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