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Progress Energy Water Resources Seminar

Comparing Price and Non-price Approaches to Urban Water Conservation

1:30-3:00 pm, Friday, November 14, 2008
Jane S. McKimmon Center, NC State University

Sheila M. Olmstead
Associate Professor of Environmental Economics
Yale School of Forestry and Environmental Studies

“After a two-year drought in the late 1970’s, the city of Tucson, Arizona, was the first U.S. City to adopt marginal-cost water prices, which involved a substantial price increase. One year later, the entire Tucson city council was voted out of office due to the water rate increase.”

When water suppliers need to reduce demand to cope with drought or supply constraints brought on by population growth, should they “ration” water by regulating use, provide incentives for water-saving devices, use a combination of regulations and incentives—or simply use prices to allocate the scarce resource? Which is most cost-effective? Which can produce the most predictable reductions? Which is easiest to monitor and enforce? Which is the fairest to all water users? And, if using prices is the best choice, how can elected officials deal with the unpopularity of increasing water rates?

Join us on November 14, as Dr. Sheila Olmstead discusses the study that she and her co-investigator, Robert Stavins of Harvard University, performed to answer these and other questions.

This seminar is free and open to the public. Registration is not required. WRRRI will offer 1 Professional Development Hour (PDHs) for engineers and surveyors.

Hosted by the Water Resources Research Institute, NC State University

ABSTRACT

Comparing Price and Non-price Approaches to Urban Water Conservation

*Sheila M. Olmstead, Associate Professor of Environmental Economics
Yale School of Forestry and Environmental Studies*

Urban water conservation is typically achieved through prescriptive regulations, including the rationing of water for particular uses and requirements for the installation of particular technologies. A significant shift has occurred in pollution control regulations toward market-based policies in recent decades. We offer an analysis of the relative merits of market-based and prescriptive approaches to water conservation, where prices have rarely been used to allocate scarce supplies. The analysis emphasizes the emerging theoretical and empirical evidence that using prices to manage water demand is more cost-effective than implementing non-price conservation programs, similar to results for pollution control in earlier decades. Price-based approaches also have advantages in terms of monitoring and enforcement. In terms of predictability and equity, neither policy instrument has an inherent advantage over the other. As in any policy context, political considerations are important.

BIOGRAPHY

Sheila M. Olmstead



Professor Olmstead's general research and teaching interests are in the area of environmental and natural resource economics and policy, including both natural resource management and pollution control. Her current area of primary research is the economics of water supply and demand, with a focus on urban settings. In particular, she is interested in measuring the effectiveness of various policy instruments, such as increasing block pricing and non-price demand management programs, in dealing with urban water scarcity. Her long-term research interests include the determinants of access to clean drinking water among low-income populations in the United States and developing countries; efficiency losses due to economic underpricing of public water supply; and current and potential applications of water marketing and water quality trading.