

# Ask the Experts

Each issue, we ask members of the *On Tap* Editorial Advisory Board to answer a drinking water-related question. We then print as many responses as space permits. The opinions expressed are not necessarily those of NESCA.

## Editorial Advisory Board

**Jerry Biberstine**  
Senior Environmental Engineer  
National Rural Water Association

**Jenny Bielanski**  
Drinking Water Utilities Team Leader  
EPA Office of Ground Water and Drinking Water

**Rodney Coker**  
Tribal Utility Consultant (Retired)  
Indian Health Service

**Mark Coyne**  
Associate Professor  
University of Kentucky

**Frank DeOrio**  
Director of Municipal Utilities  
Auburn, NY

**Kevin Kundert**  
Interactive Training Developer  
Montana Water Resources Center

**Z. Michael Lahlou, Ph.D.**  
Civil and Environmental Engineer  
Huntington Beach, CA

**Lori B. Libby**  
Senior Project Manager  
Center for Public Management  
and Regional Affairs  
Miami University of Ohio

**Babu Madabhushi, Ph.D.**  
Project Engineer  
URS Corporation  
Miami Springs, FL

**Dale Ralston**  
President  
Ralston Hydrologic Services  
Moscow, ID

**Lisa Raysby**  
Water Department Manager  
Peninsula Light Company, WA

**Jay Rutherford, P.E.**  
Water Supply Division Director  
Vermont Department of  
Environmental Conservation

**Amy Vickers**  
Engineer and Water Conservation  
Specialist  
Amy Vickers and Associates, Inc.  
Amherst, MA

Most of the time, we think that the environmental educational materials that we provide to the public, regulators, water boards, operators, and others are making some kind impact on the audience we have targeted.

**But how do we know it's making any kind of difference?**

**What methods of evaluation do we have in place?**

## It Takes Time

Does environmental education work? The simple answer would be to say, "Yes, environmental education works," or "Yes, it is important." We definitely need to include environmental education as part of the overall public education or public relations program for all aspects of the drinking water industry.

But then you ask: "How do we know that it works?" With that question in mind, maybe we should call it "environmental evolution" because that seems to be the reality of what takes place. Success in this endeavor seems to be a slowly evolving process of change or improvement. No matter what the educational format or content is—and some are definitely more successful than others—or even if the same information is presented over and over again, the target audience's acceptance and implementation does not happen overnight. It takes time for people to adapt to change.

Could it be that we take our environment for granted? Maybe most of us just assume that because good, clean water has always come out of the tap at our kitchen sinks, it always will. Is it that most environmental impacts are typically very slow in causing a problem or that we are slow to discover that problem? Or are we just fortunate to live on a part of our planet that has been blessed with environmental resources beyond compare and assume it will last forever?

It is easy to see how some might put less value on environmental awareness. Consider, for example, the hydrologic cycle. It is a self-sustaining and often a self-repairing process. So why worry about it?

The bottom line is that even though the fruits of our labor may be slow in coming, we can't give up. We can't not do it because we fail to see the onset of change of our environmental agenda as quickly as we would like.

Think for a minute of all the drinking water regulations that have been issued since the government began regulating drinking water. Out of all those regulations, only one, source water protection, contained an element of environmental education that was used in a prevention/protection mode for drinking water. With source water protection, environmental education is the principle behind the identification of environmental sources of contamination and implementing environmental protection measures.

Albert Einstein said: "The world is not dangerous because of those who do harm, but because of those who look at it without doing anything." Environmental education is the process by which we get the "do nothings" to do something.

## Rod Coker

Tribal Utility Consultant (Retired)  
Indian Health Service



## We Need Data

We need hard data on environmental education to justify all the money that is tossed at it. For example, there presently are virtually no data available on the water saving impacts from the general water conservation education activities that some water systems point to as their conservation programs. It appears that they really don't do very much. In contrast, targeted conservation information campaigns, such as those which actively engage the public to adopt specific hardware water efficiency measures through a particular program and for which there are strong financial or regulatory incentives (e.g., rebates for high efficiency clothes washers, penalties for irrigated pavements, and obvious leaks, etc.), have been shown to be effective.

The effectiveness of environmental education materials, such as those that promote water conservation, can and should be evaluated using such methods as statistically significant surveys and measured changes in actual behavior (i.e., reduced water use as recorded in customer meter records). While these evaluation methods can sometimes be laborious or costly, they are necessary to justify the costs for public outreach—or the rationale to change or cancel a public education program that is not achieving its intended results.

### Amy Vickers

Engineer and Water  
Conservation Specialist  
Amy Vickers and  
Associates



# The Ontap Drop Box

Do you have a **suggestion** for **improving** this magazine or an idea for an article we should explore?

Do you have a **question** for our "Ask the Experts" column or a Web site that you find particularly helpful?

*On Tap* editors are always **eager to learn from you.**

Here's how to contact us:

#### Mark Kemp-Rye

e-mail: [mkemp@mail.wvu.edu](mailto:mkemp@mail.wvu.edu)  
phone: (800) 624-8301  
ext. 5523

#### Kathy Jespersen

e-mail: [Kathy.Jespersen@mail.wvu.edu](mailto:Kathy.Jespersen@mail.wvu.edu)  
phone: (800) 624-8301  
ext. 5533

#### Or write to us at:

National Environmental Services Center  
West Virginia University  
P.O. Box 6064  
Morgantown, WV 26506-6064

## RDUS Loans: Poverty Rate Unchanged; Others Up

The Rural Development Utilities Service (RDUS) recently announced interest rates for water and wastewater loans. RDUS interest rates are issued quarterly at three different levels: the poverty line rate, the intermediate rate, and the market rate. Each has specific qualification criteria.

The rates, which apply to all loans issued from October 1 through December 31, 2005, are:

- poverty line: 4.5 percent (unchanged from the previous quarter);
- intermediate: 4.375 percent (up 0.125 from the previous quarter); and
- market: 4.25 percent (up 0.125 percent from the previous quarter).

For this quarter, all loans may be obligated at the lower market rate. RDUS loans are administered through state Rural Development offices, which can provide specific information concerning RDUS loan requirements and applications procedures.

*For the phone number of your state Rural Development office, contact the National Environmental Services Center at (800) 624-8301 or (304) 293-4191. The list is also available on the Rural Development Web site at [www.rurdev.usda.gov/recd\\_map.html](http://www.rurdev.usda.gov/recd_map.html).*