



'SMART' protection of drinking water

*A report
following
the end of
the SMART
About Water
program of
RCAP and
NESC*

In early 2009, the town of Bluffview, Wisc., northwest of Madison in the south-central part of the state, started to formulate a source water protection plan. Leaders were concerned about an Army ammunition plant that had been situated adjacent to the town since the 1940s and how it might affect drinking water wells in the area. Wastewater lines from the same decade were also considered as possible contamination sources.

To get started on its plan, the town's officials used materials produced by RCAP and the National Environmental Services Center (NESC) in a program called SMART About Water (Strategic Management and Available Resources and Technology).

"I've used the toolkit frequently," said Jeff Little, president of the Bluffview Sanitary District, which serves the town of 650 residents. Little also used the program's invitation letter to send to potential stakeholders to invite them to be on the team considering a plan. "I've used some of the pamphlets for educational purposes. I'm also using parts of the training curriculum because there are some slides in there that are very useful," he added.

Little and Bluffview are some of the hundreds of people and scores of communities that benefited from the program, which ended its 22-month run in late September 2009.

RCAP partnered with NESC, which is housed at West Virginia University, on the program of integrated training and technical assistance, which was funded by a \$3 million grant from the U.S. Environmental Protection Agency (EPA).

NESC and RCAP have had a solid working relationship for many years. RCAP has regularly invited NESC to participate in its U.S. Department of Health and Human Services Office of Community Services projects, and RCAP network staff members have been frequent attendees of various NESC institutes and trainings. RCAP also frequently uses NESC documents, guides and curricula and disseminates them to small systems. The SMART About Water program was a continuation of the tradition of collaboration between NESC and RCAP.

"I really appreciated working with RCAP [in this program]," said Gerald Iwan, Director of NESC. Speaking on Dec. 18, 2009, at EPA headquarters in Washington, D.C., where he presented the program's final report, Iwan estimated that there were 100 people – RCAP and NESC staff – involved in carrying out the program.

The program assisted communities in their efforts to protect drinking water quality, focusing on source water and wellhead protection. It helped communities under-



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stand that untreated wastewater from failing septic and sewer systems is the biggest threat to their water quality.

RCAP's role in the program was an "on-the-ground" force that disseminated information, trained various participants, and provided over-the-shoulder assistance in small communities' efforts to protect their drinking water.

Results

The program's goal of reaching 245 community water systems that serve fewer than 3,300 people was met.

The program had three strategies: training, technical assistance and transfer of results (communication and producing program resources).



Training

A national design committee workshop was held to determine the program's audiences and what motivates them, its desired outcomes, and the most effective means of delivering training. Attending the workshop were 49 individuals representing a wide variety of organizations, government agencies and communities.

"A side benefit and something that has outlasted the program itself is that this was a large and diverse group," said David Clark, Director of Environmental Programs for RCAP, who helped coordinate the pro-

gram, "and we've improved our coordination with each other on other efforts because of getting to know each other at that first workshop. The listserv that was developed from that meeting is still in operation."

Elected officials, licensed operators, homeowners and septic system installers/service providers in communities were identified as key audiences to receive training at the design committee workshop.

A training curriculum, toolbox of resources, delivery strategy, and evaluation process were presented at a train-the-trainer program in August 2008 (most of these materials are still available on the program's website at www.nesc.wvu.edu/smart). Nine RCAP master trainers were presented with course materials and delivery instructions that were ultimately provided to additional trainers in the six RCAP regions.

"One of the most successful components that we had was the Tool Kit," said Iwan. It was designed to assist small communities in creating their own source water protection plans and most of its parts are available to download for free.

Over the course of the program, RCAP trainers conducted 112 training sessions in 42 states and Puerto Rico. More than 683 small community water systems from all 50 states were represented by nearly 1,500 individuals in these sessions.

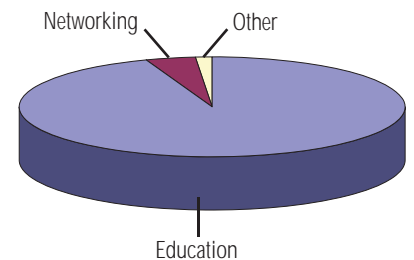
Analyses of the pre- and post-training evaluations showed a statistically significant increase in participants' knowledge on all major source water protection planning elements that were evaluated.

According to Clark, the evaluations also showed that communities not only were

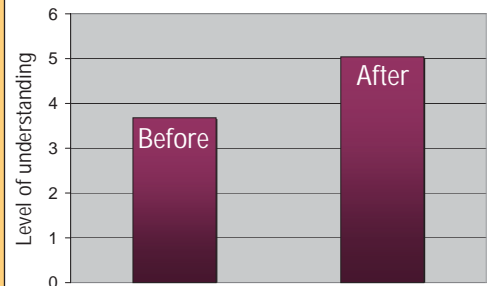
A glance at the numbers

The SMART About Water training increased participants' knowledge on all major elements of source water protection planning. Tests of participants before and after the training asked some of the questions below, which are shown with the results.

What do you feel was the most valuable aspect of this training?

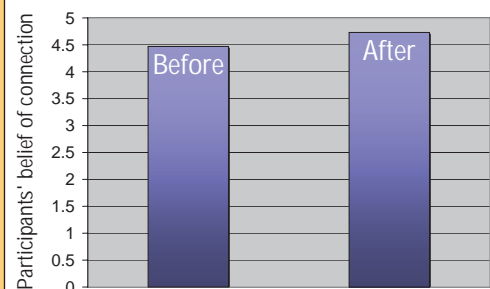


How much do you think you know about how to design a source water protection plan (average of all participants' answers)?



Deeper analysis indicated that more than 68 percent of a sample reported learning a significant amount about their systems' source water protection as a result of the training.

How strong do you believe the connection between source water protection and wastewater treatment is (average of all participants' answers)?



developing source water protection plans but also had a strong propensity to take action and carry their plans out, making the necessary changes in their communities toward protecting their drinking water. This was one of the overall desired outcomes of the program.

Technical assistance

RCAP staff provided hands-on technical assistance for preparing wellhead and source water protection plans to 23 communities designated by the program as “Trailblazers.” NESCC compiled 18 case studies about these Trailblazer communities. The example of Bluffview, Wisc., was one of these communities.

The case studies show that most Trailblazers consider source water protection a priority for their community and perceive that the biggest benefit of a protection plan is having quality water now and in the future.

“A source water protection plan gives the residents the confidence to drink the water,” said Bluffview’s Jeff Little.

Most Trailblazers used SMART materials when developing their protection plans and said that additional materials, training and technical assistance would help them move forward with implementing their plans.

Communications and resources

NESCC created the website for the program (www.nesc.wvu.edu/smart). It offers access to a wealth of information, products, and articles about source water protection planning and wastewater management options, as well as the SMART curriculum materials and case studies of the SMART Trailblazer communities.

When the program was in operation, the site was popular and received more than 300,000 visitors. This was an average of 22,000 visitors each month, and an average of 8,800 SMART materials were downloaded per month. Although the

program has ended, the website is still available, and most of the resources that were produced for the program remain there.

Other ways the program reached out to communities included technical assistance via a toll-free telephone number, educational products, listservs and articles published in magazines.

Recommendations

According to Iwan, a national, coordinated, collaborative effort to encourage and facilitate source water and wellhead protection planning, such as the SMART About Water program, is an effective strategy for reaching many people in many small communities.



Iwan and Clark recommend continuing initiatives like the program. Doing so would allow the two organizations to provide consistent and focused messages, information, materials, and assistance to targeted audiences nationwide through a full suite of services like those that the program provided during its run.

Iwan noted that the program’s 22-month time frame was limited and said that a longer span would have ensured continuity and achieved the impact such a program strived to attain. “It would be desirable to continue this project, and projects of this type that portend change in public



response and behavior, because of the lag between delivery of knowledge and materials and the demonstration and observation of subsequent actions,” he wrote in the executive summary of the program’s final report.

Iwan and Clark hope that future programs of this type and the support provided for them can be longer-term and continuous rather than compartmentalized and stand-alone so that communities and program partners can maintain continuity of activity, build momentum, measure success, and share and apply lessons learned to achieve even greater impact.

“Projects like this are not one-shot deals,” Iwan said. “We’re trying to change ethics and attitudes, and we don’t do that today and stop that tomorrow. It’s like adopting a child. You can’t bring them along and then drop the support. You have to sustain what you’ve created.” ■

Gerald Iwan, Ph.D., Director of the National Environmental Services Center, contributed material to this article.

Photos courtesy of NESCC.