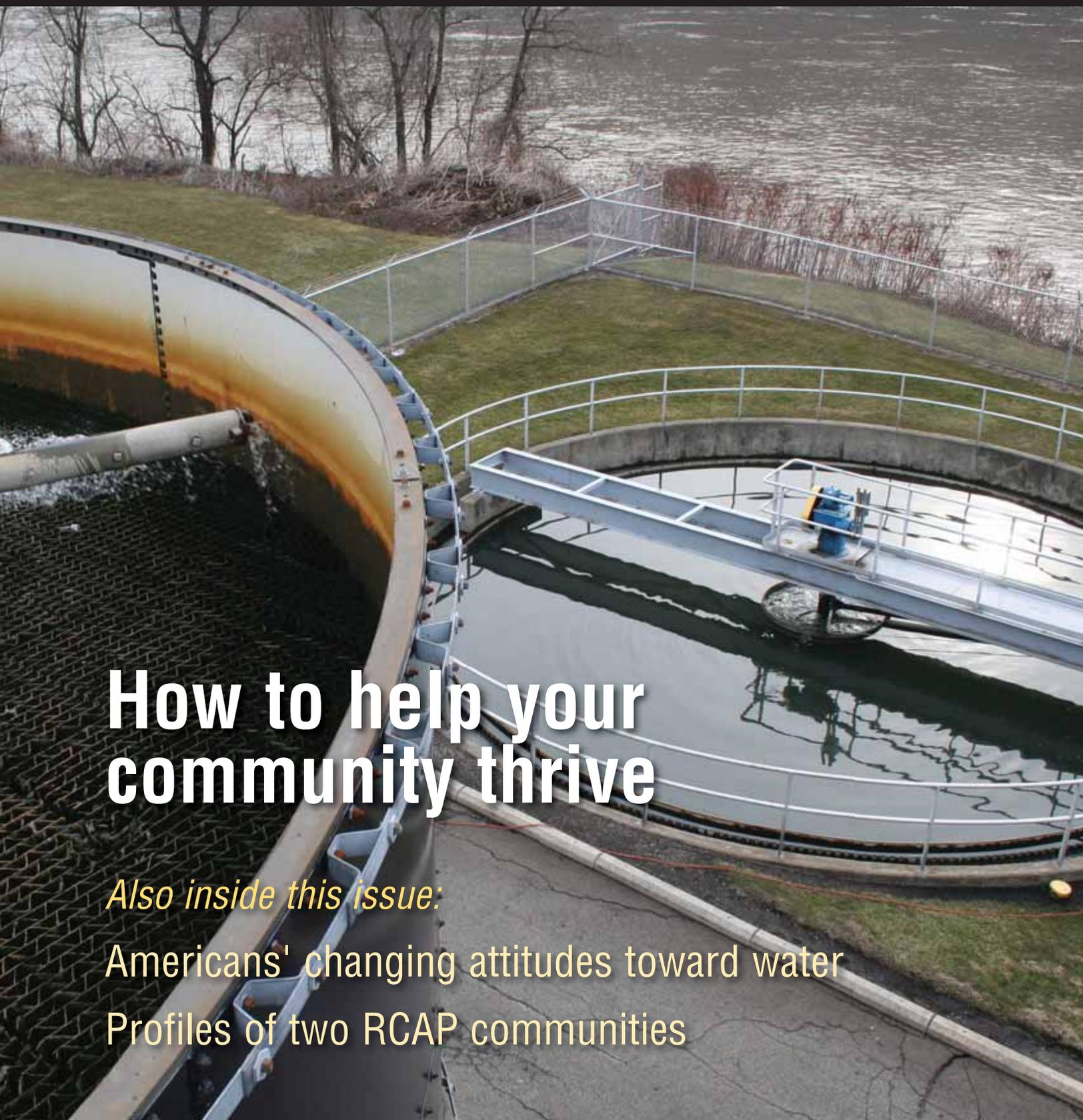


RURAL matters



2012
Issue 4

The magazine of the Rural Community Assistance Partnership

A photograph of a water treatment facility. In the foreground, a large circular clarifier tank is visible, with a metal walkway and railing around its edge. The water inside the tank is dark and still. In the background, another similar tank is visible, and beyond that, a grassy area with bare trees and a body of water under an overcast sky.

How to help your community thrive

Also inside this issue:

Americans' changing attitudes toward water

Profiles of two RCAP communities

Need help with your community's water or wastewater system?

The Rural Community Assistance Partnership (RCAP) is a national network of nonprofit organizations working to ensure that rural and small communities throughout the United States have access to safe drinking water and sanitary wastewater disposal. The six regional RCAPs provide a variety of programs to accomplish this goal, such as direct training and technical assistance, leveraging millions of dollars to assist communities develop and improve their water and wastewater systems.

If you are seeking assistance in your community, contact the office for the RCAP region that your state is in, according to the map below. Work in individual communities is coordinated by these regional offices.



Rural Community Assistance Partnership



Western RCAP

Rural Community Assistance Corporation
3120 Freeboard Drive, Suite 201
West Sacramento, CA 95691
(916) 447-2854
www.rcac.org

Northeast RCAP

RCAP Solutions
P.O. Box 159
205 School Street
Gardner, MA 01440
(800) 488-1969
www.rcapsolutions.org

 Puerto Rico
(Northeast RCAP)

Midwest RCAP

Midwest Assistance Program
P.O. Box 81
212 Lady Slipper Avenue NE
New Prague, MN 56071
(952) 758-4334
www.map-inc.org

Great Lakes RCAP

WSOS Community Action Commission
P.O. Box 590
219 S. Front St., 2nd Floor
Fremont, OH 43420
(800) 775-9767
www.glracap.org

Southern RCAP

Community Resource Group
3 East Colt Square Drive
Fayetteville, AR 72703
(479) 443-2700
www.crg.org

Southeast RCAP

Southeast Rural Community Assistance Project
347 Campbell Ave. SW
Roanoke, VA 24016
(866) 928-3731
www.southeastrcap.org

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RURAL matters

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features

Photo by Hans Pennink/FEMA



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Practical solutions for improving rural communities

photo by Melissa Jones

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The magazine of the Rural Community Assistance Partnership

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Director's Letter



Robert Stewart
RCAP Executive Director

As we close out another year, once again the question can be posed: *Does rural matter? or Is rural relevant?* At meetings in December, U.S. Department of Agriculture Secretary Tom Vilsack stated that rural America is “becoming less and less relevant.” However, before anyone jumps to conclusions, Secretary Vilsack in this context was referring in part to the diminishing share of the electorate in rural America. Approximately 14 percent of the turnout in November’s election was in rural areas.

Despite a growing agricultural sector in recent years, almost 50 percent of rural counties has lost population in the past four years, and poverty rates are higher in rural areas than in metropolitan areas. Coupled with these developments, the inability of Congress to pass a Farm Bill during the current legislative session provides further proof of the disconnect between the contributions of rural America and long-term national priorities.

One argument made by Secretary Vilsack has been that rural residents need to come together to better address rural issues on a united front and to provide solutions to rural issues instead of trying to fix blame. For RCAP and everyone involved in rural development, this means not only promoting growth in the agricultural sector but also other economic development that impacts rural communities nationwide.

Secretary Vilsack is on target in advocating that rural America needs to be more proactive in delivering the message to everyone, especially young people growing up in rural communities, that there are abundant opportunities in many different rural-based economic sectors. Important in this discussion is the need to advocate for the full development of infrastructure that supports rural economies, such as affordable housing, adequate water and wastewater systems, broadband access, community colleges, and transportation networks.

In order to sustain rural infrastructures and to promote innovation in rural economies, RCAP believes it is absolutely necessary to maintain a distinct and dedicated component within the Department of Agriculture that is devoted to these issues, namely the agency of Rural Development (RD). Although for rural communities, government programs have never been seen as a panacea, within the federal government only RD focuses exclusively on meeting the needs of rural infrastructure, community facilities, housing, and business development. Just as rural America could benefit, as Secretary Vilsack has argued, from its members coming together to advocate for programs and policies that truly support rural agricultural and economic development, it is vitally important that we retain a single agency that can effectively respond to rural development needs. The many state and area RD offices located through rural areas are the one place where rural communities can turn to for advice and assistance. The staff at these offices come from rural America, have expertise in rural issues, are known by their communities, and can offer a coordinated and comprehensive approach to assisting rural residents and communities. It is necessary for everyone involved in agriculture and rural economic development to seek ways to come together to make the case that not only is rural relevant, but rural is essential for the future of America. ■

rural developments



News and resources from the Environmental Protection Agency

Information and tools for decentralized (septic) systems:

Online information on uses and benefits of decentralized wastewater treatment

EPA has made available online information on the uses and benefits of decentralized wastewater treatment and examples of where they have played an effective role in a community's wastewater treatment infrastructure. Decentralized wastewater treatment consists of a variety of onsite approaches for collection, treatment, dispersal, and reuse of wastewater and can be a sustainable and appropriate option for communities and homeowners. The four papers include an introductory paper as well as three papers that demonstrate how decentralized wastewater treatment can be a sensible solution, cost-effective and economical, green and sustainable, and protective of the environment, public health, and water quality.

<http://water.epa.gov/infrastructure/septic/Decentralized-MOU-Partnership-Products.cfm>

Revamped EPA septic website

EPA has recently revamped its septic website to better serve homeowners, state and local officials, industry professionals, and its partner organizations. The website includes a suite of new case studies demonstrating what communities across the

country are doing to effectively manage their decentralized wastewater infrastructure and find solutions to meet their own unique wastewater infrastructure needs.

<http://water.epa.gov/infrastructure/septic/index.cfm>

New program to prevent costly septic system problems and protect the environment

The EPA has launched "SepticSmart," a new program encouraging homeowners to take steps to maintain their home septic systems, preventing costly repairs, inconvenience and pollution to local waterways, which poses risks to public health and the

environment. According to the U.S. Census Bureau, nearly 25 percent of U.S. households—more than 26 million homes—and almost one-third of new developments are serviced by septic systems.

EPA launched SepticSmart to promote proper septic system care and maintenance. This national program aims to educate homeowners about proper daily system use and the need for periodic septic system maintenance. SepticSmart also provides industry practitioners, local governments and community organizations with tools and materials to educate their clients and residents.



SepticSmart tips include:

- Spread out laundry and dishwasher loads throughout the day. Consider fixing plumbing leaks and installing faucet aerators and water-efficient products. Too much water use at once can overload your system, particularly if it hasn't been pumped in the last couple of years.
- Avoid pouring fats, grease and solids down the drain, which can clog your system.
- Homeowners should have their septic system inspected every three years by a licensed contractor and have their tank pumped when necessary, generally every three to five years. Regular inspection and pumping of a septic system can save homeowners from costly repairs. On average, it costs homeowners \$250 to pump their septic system, while the average cost of replacing a conventional septic system is \$5,000 to \$10,000. As the holidays approach, consider having your tank inspected and pumped.
- Ask guests to put only things in the toilet that belong there. Dental floss, disposable diapers and wipes, feminine hygiene products, cigarette butts, and cat litter can clog and potentially damage septic systems.
- Remind guests not to park or drive on your system's drainfield because the vehicle's weight could damage buried pipes or disrupt underground flow causing system backups and floods.

For more information, visit www.epa.gov/septicmart

New factsheets/overviews to help water utilities

- **Water-sector partnerships with the food and agriculture sector:** This fact sheet provides an overview of the importance of partnerships between water utilities and the food and agri-

culture sector. It provides information on how to develop such partnerships as well as resources to help increase utility and community resiliency.

<http://water.epa.gov/infrastructure/watersecurity/features/upload/epa817k12005.pdf>

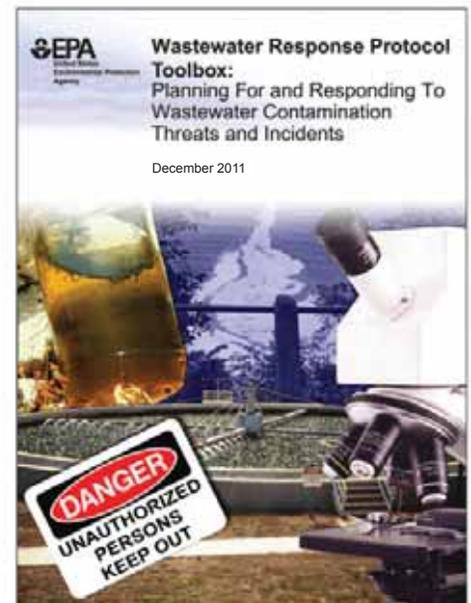
- **Cyber Security 101 for Water Utilities:** This fact sheet provides an overview of cyber security for water utilities, including the types and potential impacts of attacks and additional resources on cyber security. <http://water.epa.gov/infrastructure/watersecurity/features/upload/epa817k12004.pdf>
- **Key Features of an Active and Effective Protective Program: Tools and Resources to Assist Utilities:** Describes publicly available tools and resources available to the water sector in support of each of the key features. <http://water.epa.gov/infrastructure/watersecurity/features/upload/epa817k12003.pdf>

Effective utility management and Lean resource guide for water utilities

EPA has developed the Resource Guide to Effective Utility Management and Lean based on input and examples from several utilities. The guide explains how utilities can use these two important and complementary approaches to reduce waste and improve overall efficiency and effectiveness. Effective utility management provides a common management framework to help water and wastewater systems build and sustain the technical, managerial and financial capacity needed to ensure sustainable operations. While the focus is on outcomes water sector utilities should strive to achieve, there is also a need to demonstrate how other well-accepted tools can help utilities achieve these outcomes by improving efficiency, reducing waste in their operations, and improving

other areas of performance. One set of tools involves the use of "Lean" techniques. Lean is a business improvement approach focused on eliminating non-value added activity or "waste" using practical, implementation-based methods.

http://water.epa.gov/infrastructure/sustain/sustainable_systems.cfm



Emergency preparedness toolbox for wastewater systems

EPA has produced a new resource primarily for wastewater utilities that emphasizes preparedness for disasters and intentional or accidental contamination. The Wastewater Response Protocol Toolbox is an information document for planning for and responding to contamination (or threat of contamination) of wastewater systems. The document describes how utilities and their partners should engage in emergency-response planning to increase their preparedness. Also, it offers recommendations on emergency-response issues such as whom to notify, what actions to take, how to conduct a threat evaluation, how to safely collect

continued on next page

samples, how to analyze samples, and steps to recover from a contamination event.

<http://water.epa.gov/infrastructure/watersecurity/emergency/upload/epa817b09001-a.pdf>

New web-based tool helps water utilities access federal disaster funding

EPA has released a new web-based tool called Federal Funding for Utilities – Water/Wastewater – in National Disasters (Fed FUNDS). It helps water and wastewater utilities to better understand and get access to federal disaster funding. An intuitive tool, Fed FUNDS provides information tailored to the water sector as well as tips and application forms in one place for various federal disaster funding programs. Such programs include:

- Federal Emergency Management Agency (FEMA) Public Assistance Grant Program
- FEMA Hazard Mitigation Grant Programs
- U.S. Department of Agriculture

(USDA) Rural Development Emergency Community Water Assistance Grants

- EPA Drinking Water State Revolving Fund and Clean Water State Revolving Fund
- Housing and Urban Development (HUD) Community Development Block Grant program
- Small Business Administration (SBA) loan programs

A “Which Funding is Right for You?” button can provide funding tips for utilities during a presidentially declared disaster. Also, the “Currently in a Disaster?” button can provide quick ways to document the damage/repairs in a disaster for later reimbursement. Also, Fed FUNDS provides information on the application process, examples of successfully funded utility projects, and utility funding mentors.

Fed FUNDS addresses national/regional-level disasters but also applies to large-scale and even local disasters that result in service interruptions and significant damage to the critical water/wastewater infrastructure.

As part of EPA’s introduction of Fed FUNDS to the water sector, it will be launching a series of workshops and webinars on federal disaster funding. For additional information on Fed FUNDS or federal disaster funding/recovery, contact your EPA Regional point of contact.

Access Fed FUNDS at <http://water.epa.gov/infrastructure/watersecurity/funding/fedfunds/index.cfm>

Online training to assist tribes in managing water systems

To help tribes and Alaska Native Villages manage their drinking water and wastewater systems, EPA is releasing a series of ten online training modules covering an array of operation, maintenance, and system-management issues at smaller drinking water and wastewater facilities. Training topics include information on managing and maintaining drinking water, sewer, lagoon, and decentralized infrastructure as well as information on sustainably managing water systems, including asset management and techniques for developing rate structures. The online training materials are geared toward operators and managers in tribal lands, but potentially could benefit anyone managing a small water or wastewater system.

<http://water.epa.gov/type/watersheds/wastewater/smallsystemsoperatortraining.cfm>

Invitation to apply for 2013 Environmental Justice Small Grants

EPA is seeking applicants for a total of \$1.5 million in small environmental justice grants to be awarded in 2013. EPA’s environmental justice efforts aim to ensure equal environmental and health protections for all Americans, regardless of race or socioeconomic status. The grants



Photo by George Armstrong/FEMA

enable nonprofit organizations to conduct research, provide education and develop solutions to local health and environmental issues in communities overburdened by harmful pollution. Grants are available for up to \$30,000 each.

“Environmental justice grants support efforts to raise awareness about local health and environmental concerns,” said Lisa Garcia, EPA’s senior advisor to the administrator for environmental justice. “By supporting local projects in underserved communities, communities are able to develop plans and partnerships that will continue to improve their local environment and better protect human health into the future.”

The 2013 grant solicitation is now open and will close on Jan. 7, 2013. Applicants must be incorporated nonprofits or tribal organizations working to educate, empower and enable their communities to understand and address local environmental and public health issues.

Previous grants have supported activities including projects to better protect children in the Boston area from incidences of lead poisoning and asthma attacks, conduct research on air quality in a portside Philadelphia community and provide support to residents on the Red Lake Reservation in Minnesota to repair failing septic systems and identify water that is unsafe to drink.

The principles of environmental justice uphold the idea that all communities overburdened by pollution – particularly minority, low-income and indigenous communities – deserve the same degree of protection from environmental and health hazards, equal access to the decision-making process and a healthy environment in which to live, learn and work.

More information:
www.epa.gov/environmentaljustice/grants/ej-smgrants.html ■

Other news and resources

Free online program educates homeowners with water wells

Homeowners in small communities and rural areas without a public water supply often don’t fully understand how to manage, operate, and protect their private well.

The Illinois State Water Survey and the Illinois Water Resources Center at the University of Illinois are partnering with RCAP on a new, nationwide training initiative funded by EPA.

The Private Well Class is a free, step-by-step education program to help well owners understand groundwater basics, well care best practices, and how to find assistance. It will also teach well owners how to sample their well, how to interpret sample results, and what they can do to protect their well and source water from contamination.

The program combines a ten-part online class with live, interactive webinar events

in which the material will be reinforced and questions answered. Steve Wilson, a groundwater hydrologist with the Illinois State Water Survey with over 20 years of experience working with private well owners, will serve as the primary instructor for The Private Well Class.

The Private Well Class seeks partners in various sectors to extend the reach of this initiative and connect with private well owners. State agencies, local governments, and industry professionals are invited to become a partner and assist with promoting this free service. We especially invite partners to host webinar-viewing events that facilitate questions and answers about local groundwater issues.

Visit The Private Well Class website at www.privatewellclass.org, or contact info@privatewellclass.org for more information.

continued on next page

The Private Well Class is a free online service, grant-funded to educate homeowners about their private wells.

Webinar Schedule

- January 16, 2013**
2-3:30pm Eastern
How Your Private Well Works
Register
- February 6, 2013**
Proper Care of Your Private Well
2-3:30pm Eastern
Register
- February 27, 2013**
Water Quality and Your Private Well
2-3:30pm Eastern
Register

Monthly webinars will be held through August 2013

About the Private Well Class

This free online course helps homeowners understand and care for their water well. Through ten weekly lessons and monthly webinar trainings, private well owners will learn the basics of managing and protecting their water source. Lessons begin January 1, 2013 but enrollment is ongoing. — [Learn More](#)

The Private Well Class is sponsored by:

- ILLINOIS STATE WATER SURVEY
- RCAP
- ILLINOIS UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
- ILLINOIS WATER RESOURCES CENTER

Water should be more valued to reflect its worth, Nestlé CEO says

Nestlé's chief executive officer, Paul Bulcke, has said water should be given more value to avert a global food crisis.

Speaking at the annual World Water Week event in Stockholm, Sweden, in late August, Bulcke cited water scarcity as one of the main reasons for increased tension between food supply and demand. He called for governments to take the lead in devising credible, cost-effective strategies to address water shortages while stressing that business, civil society and other stakeholders must be prepared to take greater responsibility for the problem.

"If something isn't given a value, people tend to waste it," said Bulcke. "Water is our most useful resource, but those using it often don't even cover the costs of its infrastructure."

Nestlé, based in Vevey, Switzerland, owns water brands including Perrier, Vittel and the largest bottled-water label, Pure Life. It is the world's biggest food company.

"Fresh water is being massively overused at nature's expense, but it seems only a global crisis will make us realize the importance of the issue," warned Bulcke. "What is environmentally unsustainable today will become socially unsustainable in the future," he warned.

The annual water event, organized by the Stockholm International Water Institute, started in 1991 and focused this year on how to curb food waste and use water more efficiently.

At last year's event, Nestlé won the Stockholm Industry Water Award for its leadership, performance and efforts to improve the water management in its supply chain.

Soft drink maker and global conglomerate PepsiCo Inc. was given this year's award for

its efforts to conserve billions of gallons of water in its operations through new water-management and farm-irrigation methods including water-saving equipment, recycling and re-use.

Its efforts have included working toward the vision of a "near-net zero" food plant at the Pepsi-owned Frito-Lay facility in Casa Grande, Ariz. Pepsi has transformed an existing facility to be as far "off the grid" as possible and to run primarily on renewable energy sources and recycled water (up to 75 percent of water is recycled), while producing no landfill waste.

Website explains our invisible uses of water

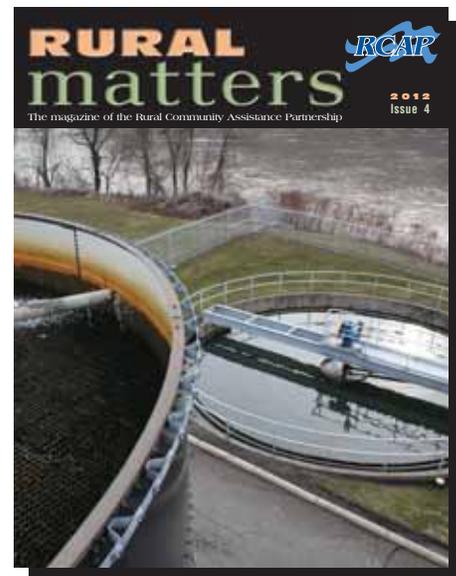
A fun and interesting website walks visitors through a narrative that shows the less-obvious and invisible ways we use water on a daily basis. The site is visually appealing with many graphics to illustrate the various ways we "eat 3,496 liters [924 gallons] of water" in daily activities.

"An understanding of our water consumption can help us provide a solution to one of our most pressing problems: making sure there is enough water for everybody on the planet," the site says.

Some of our indirect consumption of water is in the production of the industrial products we consume every day, such as paper, cotton, clothes. Another large part of the water we use is to produce the food we eat. The site says that "92 percent of the water we use is invisible and it is hidden in our food!"

The site provides facts about amounts of water to produce common foods and ways to reduce our demands on the water supply through our diets.

www.angelamorelli.com/water



About the cover photo

The photo on the cover of this issue of *Rural Matters* is one of the winners of RCAP's national photo contest. The RCAP national office challenged RCAP staff across the country to "picture RCAP"—to illustrate in photographs their work, what RCAP does, or where RCAP works. Another purpose of the contest was to encourage field staff of RCAP's six regional partners to share stories from the communities they work with—in the form of photos instead of the traditional written case studies.

The photo was the winner in the facilities/infrastructure category. It shows a membrane trickling filter, a clarifier, and the Ohio River in the background. The photo was taken at the Village of Wellsville [Ohio] Wastewater Treatment Plant and shows the path of the wastewater as it is treated and returned to the environment. It was taken by Scott Strahley, an Engineer for Ohio RCAP, part of the Great Lakes RCAP.

Upcoming issues of *Rural Matters* will feature the contest's other winners. ■

Government Accountability Office affirms federal arrangement of EPA and USDA programs for water infrastructure funding

A federal government report released in September finds that no duplication at the federal level exists among the programs of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA) that provide drinking water and wastewater infrastructure funding to small, rural communities.

However, the report, authored by the U.S. Government Accountability Office (GAO), recommends that EPA and USDA make changes to eliminate inefficiencies on the state and community levels to make it easier for communities to apply for and prepare for funding from these agencies for water infrastructure work.

In the report, “Rural Water Infrastructure: Additional Coordination Can Help Avoid Potentially Duplicative Application Requirements,” GAO recommended changes by the agencies specifically to “help states develop uniform preliminary engineering reports, develop guidelines to

help states develop uniform environmental analyses, and reemphasize the importance of state-level coordination.” EPA and USDA oversee the three largest federally funded drinking water and wastewater funding programs for communities with populations of 10,000 or less.

RCAP’s work is related to these programs in key ways.

The communities that RCAP assists free of charge benefit directly from EPA and USDA’s programs. Many water infrastructure projects in communities assisted by RCAP apply for and receive funding from the EPA’s Drinking Water and Clean Water State Revolving Fund (SRF) programs and the USDA’s Rural Utilities Service (RUS) Water and Waste Disposal program. RCAP assists the staff and board members of water utilities with the funding application process from these programs and with the other necessary steps to apply for loans and grants from these programs. It is on these requirements that GAO was making its recommendations.

RCAP also receives direct grants for its general operating budget from both the EPA’s and USDA’s water-related programs. These grants allow RCAP to employ 140 staff members across the country to provide technical, managerial and financial assistance to small, rural communities.

“We are pleased to see the GAO affirm what we already knew: The State Revolving Fund programs and Rural Utilities Service’s water and wastewater programs are not duplicative, but rather are complementary,” said Ari Neumann, Director of Policy Development and Applied Research in RCAP’s national office in Washington, D.C. He explained that together, the three programs serve water systems of all sizes, from small to large. “These programs contribute to the world-class clean and safe water and wastewater treatment that Americans expect and deserve.”

Neumann added that even with the three programs in place, they do not go far enough. “At the current levels of funding, they still do not address the nation’s continuing needs for water infrastructure financing, which EPA estimates are in excess of \$600 billion over the next two decades,” he said.

“We agree with the report’s recommendations that the agencies should collaborate more to ensure that communities are subject to one uniform set of requirements and are pleased by the efforts that are currently underway at the federal level to standardize and streamline the application processes.”

Read the full report at www.gao.gov/assets/650/649553.pdf ■



5 things you can do to help your community

by Jean A. Thompson-Ibbeson

Photo by Hans Pennink/FEMA

Editor's note:

This is one in an occasional series of articles on “Five things you can do to improve...” Earlier articles have appeared in previous issues of *Rural Matters* in 2012 and can be found at www.rcap.org/RMissues

Teamwork is the ability to work together toward a common vision. The ability to direct individual accomplishments toward organizational objectives. It is the fuel that allows common people to attain uncommon results.

—Andrew Carnegie

Two friends who live in the same neighborhood run into each other while shopping on Main Street. As they talk, one airs complaints about how hard it is to find certain things after the hardware store closed last year. The other talks about how her children are bored because there are no basketball courts or sports leagues in town. They agree that the town council should do something to attract new businesses or improve the parks. Yet they go their separate ways with their complaints unheard by the right people, and nothing is done to improve residents' lives.

Has this ever happened in your community?

Improving a community is the responsibility of its leaders—but also of its residents. Often it's a chicken vs. the egg dilemma: Who should act first and who should do the work? Residents believe their taxes fund institutions to serve the people, but often the institutions aren't nimble or responsive enough to know what needs they should address.

Responsiveness to citizens' preferences, concerns and needs is a fundamental part of American democracy. In many situations, the law requires that the needs of a community be studied prior to the development of policies and programs in areas such as land use, transportation and health care planning.

With the economic conditions many urban and rural communities are facing today, it is important that programs and/or organizations have the flexibility to function and adapt to the changing needs of the population served.

Citizen groups, public officials and agency representatives need to secure accurate information about the needs of a community before action can be taken. The following five key things can help justify grants, design new local programs, promote collaboration among local agencies and businesses, and support funders in decision making. These items list concrete ways for the right people and parts of a community to get in the right positions to make changes and improvements.

1 Conduct a formal community-needs assessment.

Evaluate the needs of the population served.

As a consequence of demographic change in your community, what was once an appropriate policy or program can now be inappropriate for your current population. The character or mood of a community shifts as a result of the interplay of social, cultural and economic changes.

The needs of different groups in a community are difficult to identify, and they are frequently interrelated. Sometimes people do not express their attitudes and feelings openly, and their needs are not revealed until a crisis occurs. When public concerns correspond with the responsibilities of several agencies, no one agency may identify specific concerns or needs as high priority, and the result may be that no action is taken.

A community-needs assessment is an excellent way to involve the public in problem solving and developing local goals. There is a tendency for people to resist change, frequently because they have inadequate information or because they have not been involved in the decision-making process. An assessment can include the involvement of residents, whereby people not only learn more about the situation, but they also feel that they have contributed to the outcome.

Needs assessments can help local leaders ease the impacts of a decision and can be especially helpful to:

- learn more about the current residents and newcomers in their neighborhoods.
- identify needs for new or expanded public services.



Photo by Robert Britts, SE RCAP

- assess public opinion about the community's goals and priorities.
- evaluate existing programs and services and planning for improvements.
- provide justifications or explanations for budget and grant requests.
- increase citizens' understanding of the community's problems and their effect on people and organizations in the community.
- build the support of residents for public decisions, in that citizens develop a greater sense of ownership through involvement.
- increase residents' awareness of community planning, including availability of resources.

The goal of a needs assessment is to identify a community's resources (workers, skills, funds, infrastructure, land, etc.) and potential problems. A simple way to estimate your community's needs is to simply ask residents their opinions about the development of services within the community, their satisfaction with services, and what particular services are needed. This information can be gathered through interviews with community leaders, public meetings, focus groups, surveys, and reviewing existing information about the community's needs, issues, assets and resources.

Resources and tools for conducting a community-needs assessment:

- Rotary Foundation of Rotary International: Community Needs Assessment—Frequently Asked Questions
www.rotary.org/RIdocuments/en_pdf/mg_cna_faq.pdf

continued on next page

- New Jersey State League of Municipalities:
Conducting a Community Needs Assessment
[www.njslom.org/
ConductingCommunityNeedsAssessment.html](http://www.njslom.org/ConductingCommunityNeedsAssessment.html)
- Center for Urban Research and Learning and the
Department of Psychology at Loyola University,
Chicago: A Community Needs Assessment Guide:
A Brief Guide on How to Conduct a Needs
Assessment
[www.luc.edu/curl/pdfs/A_Community_Needs_
Assessment_Guide_.pdf](http://www.luc.edu/curl/pdfs/A_Community_Needs_Assessment_Guide_.pdf)



Photo by Tim Burkitt/FEMA

2 Build your community's capacity. Develop a foundation for sustainable, long-term growth.

Community capacity is the “interaction of human, organizational, and social capital existing within a given community that can be leveraged to solve collective problems and improve or maintain the well-being of a given community. It may operate through informal social processes and/or organized efforts by individuals, organizations and the networks of association among them and between them and the broader systems of which the community is a part” (Robert J. Chaskin, *Defining Community Capacity: A Framework and Implications from a Comprehensive Community Initiative*, Chapin Hall Center for Children at the University of Chicago, 1999).

In other words, a community's capacity is its own ability to take charge of and make decisions about what happens in the life of its residents and neighbors. One especially important part of community capacity is its members' ability to appeal to funders and policy-makers as a collective group and not just as individuals.

Capacity building is defined as the “process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt and thrive in the fast-changing world” (Ann Philbin, *Capacity Building in Social Justice Organizations*, Ford Foundation, 1996).

To build your community's capacity, plan activities at different levels of involvement to accomplish specific goals. Most strategies for building capacity will tend to focus on some combination of four major strategic areas: leadership development; community organizing; organizational development; and fostering collaborative relations among organizations. This is often done under the umbrella of a local governance mechanism that guides the initial planning and implementation before taking on a larger role of speaking and acting on behalf of the neighborhood more broadly.

There is more to capacity building than just training, and it should provide the tools that enable a community's systems to run more effectively, the processes and procedures to better manage relationships, and give residents the ability to make legal and regulatory changes to enhance their capacities.

Resources and tools for building capacity:

- Wikipedia: Capacity Building
[http://en.wikipedia.org/wiki/Capacity_
building#Local_Capacity_Building_in_Practice](http://en.wikipedia.org/wiki/Capacity_building#Local_Capacity_Building_in_Practice)
- *Defining Community Capacity: A Framework and Implications from a Comprehensive Community Initiative*, Robert J. Chaskin, The Chapin Hall Center for Children at the University of Chicago, 1999
[www.chapinhall.org/sites/default/files/old_
reports/41.pdf](http://www.chapinhall.org/sites/default/files/old_reports/41.pdf)
- National Service Knowledge Network: Five Cs: Strategic Factors for Building Community and Sustaining the Initiative (These factors are based on an examination of 150 years of research and field experience.)
[www.nationalservicerresources.org/five-cs-strategic-
factors-building-community-and-sustaining-initiative](http://www.nationalservicerresources.org/five-cs-strategic-factors-building-community-and-sustaining-initiative)

3 Implement processes for community change and improvement.

Evaluate the community's capacity to meet its current needs, and build on the community's strengths to address problems and make the most of opportunities that arise.

Tough issues such as crime and youth unemployment can be addressed with available research and best practices. The challenge is to create healthy families and children, thriving neighborhoods, living-wage jobs and viable economies. To realize specific change and improvements in your community, implement a process to guide the activities that achieve those results. Choosing the appropriate process will help you assess, prioritize and plan; implement targeted actions; change your community's conditions and systems; achieve widespread change in behavior and risk factors; and improve residents' health and development.

Resources and tools for implementing processes for change and improvement:

- Solutions for America: The Guide to Civic Problem Solving
www.solutionsforamerica.org
This website provides support for implementing 12 Promising Processes or activities that have shown to promote community change and improvement.
- The Community Tool Box: Promising Processes for Community Change and Improvement
<http://ctb.ku.edu/en/promisingapproach/index.aspx>
- Innovation Center for Community & Youth Development: Connecting People and Ideas to Create Change
www.theinnovationcenter.org/documents/highlighted-activity-leading-change

4 Create a strategic and action plan. Once problems are identified, develop a plan to address them.

Strategic and action plans put the community in the best possible position to implement goals and strategies. A



Photo by Andrea Booher/FEMA

plan creates a single set of specific, strategic actions with measurable outcomes that lead to greater public buy-in and a more effective allocation of resources.

For plans to be effective, the community needs to implement strategic plans tailored to its local needs (based on a community-needs assessment). You should 1) reassess your community's progress toward the goals/objectives outlined in your plan and 2) consider revisiting your plans to align with the subpopulations, goals, and timelines. As this is done, it's important to consider the long-term costs and impacts of each change based on your community's values and resources. Balancing what the community is, what it has, and what it wants to become is essential to creating a healthy community.

Resources and tools for creating a strategic and action plan:

- The Community Tool Box: Outline for Developing Strategic and Action Plans
http://ctb.ku.edu/en/dothework/tools_tk_content_page_193.aspx
- Community Strategic Plan Guide and Form: A Straightforward Way to Get What You Need, by Sheila A. Selkregg, PhD
[www.commerce.state.ak.us/dca/planning/planning_central/CommunityPlanningResources/CommunityStrategicPlanGuideandForm\(USDA2001\).pdf](http://www.commerce.state.ak.us/dca/planning/planning_central/CommunityPlanningResources/CommunityStrategicPlanGuideandForm(USDA2001).pdf)

continued on next page

5 Create and maintain collaborations and partnerships.

Nurture relationships with national, state and local, public and private organizations, agencies and businesses.

Community-based collaboration is the process by which citizens, agencies, organizations and businesses work together to share information and resources in order to achieve a shared vision. In a time of increasing demands and limited resources, it is almost impossible to accomplish tasks or goals by only relying on one's own resources. Therefore, partnerships and collaborations offer possibilities for maximizing what a community can accomplish. Common issues and opportunities can be found and acted upon together to prevent duplication of costs and efforts, which may have immediate and long-term, as well as direct and indirect, effects.

For example, seven counties formed a one-stop resource center called the "community-development center." The center is a collaboration that provides resources on a broader scale to rural communities. When a community contacts the center, the center reviews the issue to be resolved and puts the community in contact with the agency/agencies that can provide those services, then continues to coordinate those efforts throughout the process.

Resources and tools for creating and maintaining collaborations and partnerships:

- University of Rhode Island, Building Community Collaborations: Cooperative Extension Fact Sheets, Community Development #4
www.uri.edu/ce/faceit/Facts%20Sheets/Community%20Development/cd4.html
- National Service Knowledge Network: Tools and training for volunteer and service programs
www.nationalserviceresources.org
- How to Build Community Collaboration: It's amazing how much can be done when it doesn't matter who gets the credit, attributed to George C. Marshal
www.communitycollaboration.net/id22.htm ■

Thompson-Ibbeson is a Rural Development Specialist-Environmental in California for RCAC, the Western RCAP.

As water scarcity grows, survey shows most Americans strongly support 'toilet-to-turf' water-reuse solutions

Majority of Americans surveyed see an increase in safe and efficient water reuse as a competitive advantage over other countries



SCHENECTADY, N.Y. (GE)—Amid growing water scarcity and concern about the future availability and quality of water, a General Electric survey unveiled Oct. 23 indicates that Americans strongly support reusing water to help the United States drive economic competitiveness and protect the environment.

Despite the “ick factor” often associated with recycled water, 66 percent of the Americans polled feel positive about water reuse, according to the survey of 3,000 consumers in the U.S., China and Singapore. The survey reports that Americans also think that industry and government should play a stronger role in making water reuse a priority.

Reuse offers a solution

This is a significant finding, considering that 36 U.S. states face water shortages in the coming year, according to the U.S. General Accounting Office, and that by 2025, two-thirds of the world’s population—or 5.3 billion people—will be vulnerable to water shortages, according to the United Nations.

“Population growth, rapid industrialization and accelerated urbanization are driving the need for water reuse,” said Heiner Markhoff, president and CEO—water and process technologies for GE Power & Water. “The survey, which we developed to get a better understanding of the awareness and barriers to adoption of water reuse, revealed stronger support for water recycling than we expected. It shows that the vast majority of Americans understand the value of water reuse.”

While the majority of Americans hesitate at the concept of “toilet-to-tap” recycling, more than 80 percent of Americans surveyed indicated that they support using recycled water for many “toilet-to-turf” uses—activities that require significant amounts of non-potable water, such as agricultural irrigation, power generation, landscaping, industrial processing and manufacturing, toilet flushing and car washing.

Industry has large role to play

Nearly 20 percent of the world’s freshwater resources are used for industrial purposes and nearly 70 percent for agriculture, according to the U.N. World Water Assessment Programme. The survey showed that Americans feel that the largest water users are most responsible for contributing to water scarcity. Large industries (74 percent), agriculture (69 percent) and utilities and power companies (67 percent) were seen as most responsible for contributing an “extreme amount” or “quite a bit” to water scarcity.

Americans also see the connection between energy and water—more than eight in 10 (86 percent) understand that you need energy to deliver water and more than seven in 10 (74 percent) are aware that you need water to create energy. Americans expect energy industry leaders to demonstrate water stewardship by using recycled water to produce electricity—and believe this can positively impact cost and efficiency. Around 84 percent said smart water management can help the U.S. more efficiently create and use energy, and nearly nine out of 10 (87 percent) Americans are in favor of using recycled water for power generation, more than any other application.

“There is an inextricable tie between energy and water,” said Markhoff.

Policy, innovation and education as path forward

Despite having positive perceptions of water reuse and a good grasp on the country’s largest water users, Americans’ understanding of the water lifecycle and solutions lags behind that of those surveyed in China and Singapore. For example, 31 percent of Americans don’t know where their water comes from, compared to only 14 percent of those in China and 15 percent of those in Singapore.

Additionally, Americans are looking to national government to take the lead to advance water reuse. Eight in ten (84 percent) Americans believe protection of water resources should be a national priority. However, Americans are willing to do more than just call on the national government; they will open their pocketbooks as well. Nearly half would immediately pay more—12 percent on average—to ensure that future generations will be less vulnerable.

“GE sees water reuse as a critical solution to help reverse the trend of growing water scarcity in the U.S. and around the world, and the technology needed to move toward that reality is available today,” said Markhoff. The adoption of technology, combined with forward-thinking government policy and education, will be the key to overcoming barriers to water reuse.”

For a more in-depth look at the results of this survey, visit the GE Power & Water’s water and process technologies website at <https://knowledgecentral.gewater.com/kcpguest/loginPortal.do> ■





Nashville, Ga., gets new wastewater treatment plant

by Phillip Read

Located in southeastern Georgia, Nashville is the seat of Berrien County and provides water and wastewater services to approximately 1,940 households. The aging wastewater treatment plant and land-application spray fields had become undersized due to growth in the area and also suffered from large volumes of infiltration and inflow during heavy rains. A complete system upgrade had become necessary to manage the issues facing the city's wastewater service.

The Georgia RCAP team (part of the Southeast Rural Community Assistance Project, the Southeast RCAP) assisted the city in the preparation of its Clean Water State Revolving Fund loan application,

including all supporting documents. The loan the city received funded the construction of a new, advanced wastewater treatment facility. The total amount of funding leveraged for the project due in part to the work of the Georgia RCAP staff is \$6.2 million. The project began in January 2010 and is scheduled to be concluded in 2013.

Technical specifications

Wastewater pumped from the influent pumping station will receive preliminary treatment at a new or rehabilitated headworks consisting of fine screening and grit removal. Flow will then be by gravity through a splitter box that will feed the biological treatment process. Flow to the

biological process will be by automatic control during the fill cycles. Flows in excess of the 1.0 MGD design flow will be directed to the aerated lagoon for treatment. From there, the flow will be directed to either the LAS storage lagoon for treatment in the land-application system or to what is now the facultative lagoon, which will be converted for use as off-line flow equalization. This flow can then be returned to the new biological treatment process for treatment and discharge.

The plant will consist of a two-tank, sequential batch reactor (SBR) process to provide oxidation of carbonaceous BOD and nitrification of influent nitrogen. The SBR sequencing will be modified to allow maximum biological uptake of phospho-



rus. Additional phosphorus removal will be by chemical precipitation using alum. Decants from the SBR will be equalized and polished by tertiary filtration. Disinfection by UV and post-aeration will be provided prior to discharge to the Withlacoochee River.

Wasted sludge will be aerobically digested, dewatered and transported to a sanitary landfill for disposal. Each SBR tank will use fine bubble diffusers. A dissolved oxygen meter will be provided in each tank to allow for the option of automatic or manual control of air flows for process optimization.

The project was divided into two phases consisting of the rehabilitation of existing facilities and new construction.

Phase one addresses the rehabilitation of the influent pump station and the land-treatment system. The plant's operators reported that the existing pumping station had been able to handle peak flows during heavy rainfall periods. However, the facility is aging, equipment (pumps, valves and associated piping) and controls need replacement. There will also be a number of upgrades that will improve the overall operation of the land-application spray fields. These include:

- removing accumulated sludge in the aeration lagoon
- rehabilitation of the spray fields
- replacing the floating baffle in the aerated lagoon

- repairing or replacing defective aerators
- rerouting piping to maximize storage capacity
- screening and grit removal of the influent

Phase two addresses needs in the areas of screening and grit removal; influent sampling and flow measurement; flow direction; the construction of the wastewater treatment facility itself; biological treatment; chemical storage and feed; tertiary filtration; sludge handling and removal; disinfection; post aeration; effluent sampling/monitoring; plant drains; discharge piping; and standby power/redundancy.

The Georgia RCAP staff worked closely with the consulting engineer, city clerk and council, funding agency personnel and the state environmental agency representatives to prepare the application, obtain funding for the project, and to prepare requests for proposals for local contractors. The Georgia RCAP team will continue to assist with post-award requirements and reporting and will monitor the construction as it progresses. ■

Read is the Director of the Georgia Rural Community Assistance Program, part of the Southeast Rural Community Assistance Project, the Southeast RCAP.



Community profile

Puerto Rican community wins award, recognizes RCAP Solutions for outstanding assistance

by Josefa Torres

Comunidad Barrio Mamey is a very small, rural community water system located in the town of Patillas, Puerto Rico. When the community was incorporated in 1971, it provided drinking water to 27 families from a surface water source. The water system currently has 96 connections and is run primarily by volunteers. When the Environmental

Protection Agency (EPA) and the Puerto Rico Department of Health required the system to comply with Safe Drinking Water Act regulations, the community didn't know where to start. In addition, residents were also confronted with meeting growing demands for drinking water in the community.

Due to the community's noncompliance with the Surface Water Treatment Rule (SWTR), EPA issued an administrative order and asked RCAP Solutions, the Northeast RCAP (responsible for RCAP's programs in Puerto Rico), to assist the community. The community also needed RCAP Solutions' help because it was using an unfiltered surface water source and a well that couldn't satisfy the demands of the community.

After much time and effort, RCAP Solutions was able to provide the community with the assistance necessary to comply with the regulations.

Community award

Every year at the annual conference of the EPA, American Water Works Association-Puerto Rico Water Environment Association and the Puerto Rico Department of Health Drinking Water division, awards are given to non-Puerto Rico Aqueduct and Sewer Authority drinking water systems in three categories.

Barrio Mamey Aqueduct is the only community that has won the award in all





RCAP Solutions staff members Scott Mueller (far left), Josefa Torres (third from left) and Juan Campos Collazo (far right) with members of the Barrio Mamey Community.

categories: third place for Work and Community Organization in 2008; second place for Significant Improvements Towards Compliance in 2011; and this year it won first place for Safe, Potable Water.

In gratitude for the assistance provided by RCAP Solutions Puerto Rico staff members Josefa Torres and Juan Campos, the community presented them with a recognition plaque during the conference's award ceremony.

The plaque, translated from Spanish, reads: "In recognition for your work and effort performed during this time for our community of Barrio Mamey, Río Chico Sector. Your endeavor and faith do not have limits to reach and achieve success to have quality water. Many thanks and lots of success, given today, May 9, 2012 at San Juan PR Convention Center."

A resident of the Barrio Mamey community, Sharon Kidwell, addressed the audience stating: "When RCAP Solutions

began assisting us with our drinking water several years ago, we didn't know how an aqueduct should be run, how to supply safe drinking water, or how to meet local and federal regulations. Through the years and with Josefa and Juan, the community

RCAP Solutions' assistance has helped our community to gain the knowledge and skills needed to increase and meet the drinking water standards of the SDWA.

received drinking water regulatory advice, technical assistance, and the necessary education and training workshops. Their expertise and experience has enabled us to find affordable solutions to our water-

infrastructure needs that will support economic growth in our community. Our aqueduct has benefited from the knowledge, guidance, and assistance provided by both. RCAP Solutions' assistance has helped our community to gain the knowledge and skills needed to increase and meet the drinking water standards of the SDWA. By receiving this assistance, I have to say on behalf of Mamey community that our aqueduct is actually in complete compliance with the [Puerto Rico Departments of Health, Natural Resources and Sanitation, and the EPA] and other government agencies. Josefa and Juan have played a major role in the success of receiving the first place award this year." ■

Torres is the District Director for Puerto Rico and the U.S Virgin Islands with RCAP Solutions, the Northeast RCAP.

THE VALUE OF WATER AMERICANS ON THE U.S. WATER CRISIS

Growing populations, rapid urbanization and chronic underinvestment are putting pressure on our nation's aging water infrastructure.

BROKEN/ LEAKING
PIPES LOSE

1.7
TRILLION
GALLONS
OF WATER
PER YEAR

COST
OF
\$2.6B*

A WATER MAIN BREAKS
IN AMERICA EVERY

TWO
MINUTES*

RECOGNITION OF THE WATER CRISIS

Americans recognize that our nation's water resources are increasingly at risk and are concerned about the state of our infrastructure system.

79%

recognize demands on water resources are growing and water is becoming increasingly scarce

77%

are concerned about our nation's water infrastructure system

88%

believe our water infrastructure needs

REFORM

86%

say they have experienced the impact of water shortages and contamination

GOVERNMENT HAS A ROLE TO PLAY

They believe the government should be accountable for fixing problems with our water infrastructure system.

88%

believe government (federal, state and municipal) should be accountable for fixing water infrastructure problems



85%



want greater government investment

79%



want more time spent addressing issues



39%

trust local and municipal governments most to address these problems

A SENSE OF PERSONAL RESPONSIBILITY

Americans recognize that they also have a personal role to play and are willing to pay for water infrastructure upgrades.

31%

believe Americans should be responsible for paying for water infrastructure improvements by paying a little more in their water bills



Despite recent increases in water bills **six in ten** Americans are willing to pay a little more each month to upgrade our water system



Resulting in **\$6.4B** in water infrastructure investments per year

They are willing to pay an average of **\$7.70** more per month increase from **\$6.20** more per month in 2010

LEVEL OF DISCONNECT REMAINS

Americans are largely unaware of their water footprint or the extent to which water infrastructure problems would impact them personally.

54%

50 gallons



estimate that they use 50 gallons or less of water daily while they actually use closer to 2x that amount*



69%

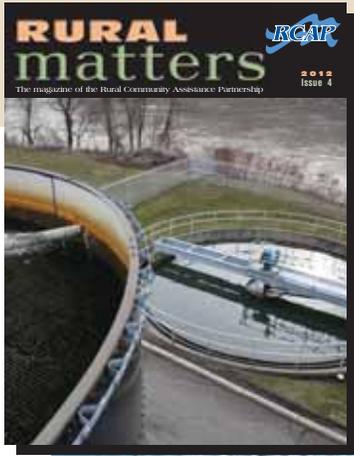
generally take access to clean water for granted



Only **29%**

believe problems with America's water infrastructure would affect them personally "a great deal"





RURAL matters *is going digital!*

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and your
community's
health don't
make a good
marriage.

a drop of KNOWLEDGE



Get the
newsletter
that helps you
provide clean,
safe water.

Your water system is on the front lines of protecting the health of your community. You as a leader of your water system want to provide water that is safe enough for your own family.

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Each issue is delivered to your email inbox every month and provides practical information for operating or managing your water system – not too much to be overwhelming, but just enough to make a difference.

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