

RURAL matters



2011
Issue 3

The magazine of the Rural Community Assistance Partnership

Arsenic Compliance:

what every
small system
should know

Also in this issue:

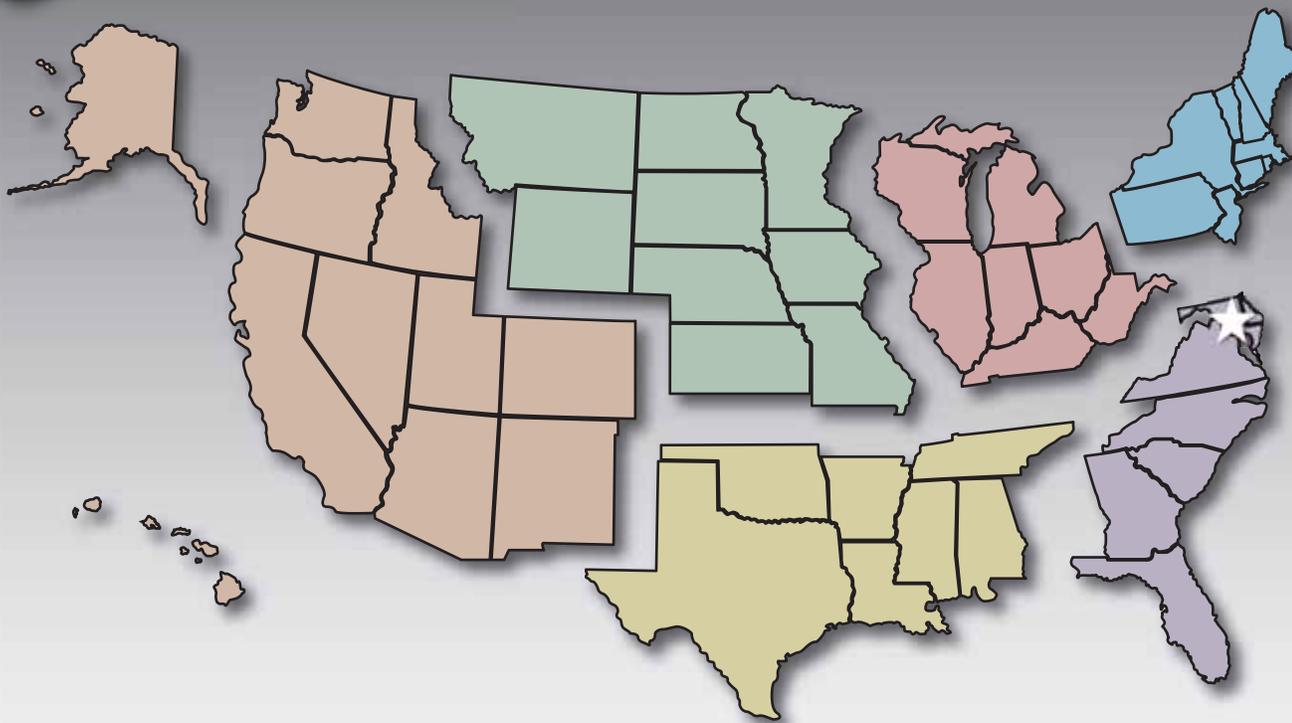
Community Profile

New guides
from RCAP to help
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RURAL matters

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features



*Photo courtesy of
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departments

Director's Letter	5
Rural Developments	6
RCAP Network News	12

**Obama administration establishes
White House Rural Council** 11

Inequality rising in rural and urban America 14

Community Profile 15
Bake sales and more buy Arizona community a new sewer system

Arsenic compliance for small water systems 18



Improving the quality of life in rural communities

Photo by Stephen Padre

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The magazine of the Rural Community Assistance Partnership

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Director's Letter



Robert Stewart
RCAP Executive Director

R*ural Matters* is not only the name of RCAP's magazine, but it also represents a strongly held conviction of every employee of RCAP and its six regional partners. Whether we are assisting rural communities with water, wastewater, solid waste, housing, economic development or other, related issues, our staff realize the importance of rural areas and communities to their residents as well as to each and every American. Rural areas are indispensable in providing food and fiber, minerals and energy resources, and recreation and tourism opportunities for everyone. Out of this conviction emerges our passion for ensuring that rural America is treated in a fair manner in areas such as infrastructure development, environmental protection, economic-development opportunities, education, and the provision of needed services to rural families and communities. Unfortunately, in too many cases when policy decisions are being made and when resources are being allocated, rural America not only is without a seat at the table, it is not even in the room.

With that in mind, I recently saw a distressing story from the Harvard School of Public Health (July 5, 2011, press release) about critical-access hospitals (CAHs) in rural areas. CAHs are defined as geographically isolated facilities with no more than 25 acute-care beds. In this first such national study on the issue, it was found that CAHs "have fewer clinical capabilities, lower quality of care, and worse patient outcomes compared with other hospitals." Notably this study reports that "patients admitted to CAHs had 30 to 70 percent higher odds of dying within 30 days after being admitted for heart attacks, congestive heart failure or pneumonia." While there are some ways to improve this situation, such as partnering with larger hospitals or increasing the use of telemedicine, I was struck by the lead researcher's (Karen Joynt) statement that "helping these hospitals improve is essential to ensuring that all Americans receive high-quality care, regardless of where they live."

This last statement reflects RCAP's belief that wherever you live in America—rural, suburban or urban—every citizen should have access to safe and affordable water and wastewater services, affordable housing, educational and economic opportunities, a sustainable environment and, yes, even health care. In this issue you will find an article about the newly created White House Rural Council that will focus on important initiatives for rural Americans. RCAP is hopeful that the collaborative activities slated for the council will be inclusive of and representative of a wide range of rural interests. In many cases, what rural communities need is not large sums of federal funding or changes in federal policies but rather technical assistance and training that takes advantage of imbedded rural beliefs of community, family and individual self-sufficiency, and the need for neighbors to work together to solve local problems.

Just look at the cover photo to get an idea of how important technical assistance can be for rural utilities. This photo is from a utility serving a low-income rural area in Ohio. The wellhead itself appears to be in violation of numerous well-construction standards or requirements. These are the type of requirements that RCAP technical assistance providers routinely help communities meet. In this case, the community was able to access existing funding programs to provide for a better water supply. Assisting communities locate and meet requirements for existing funding programs is another aspect of RCAP's work in rural America.

Does rural matter to you? I welcome your thoughts and comments on the importance of rural areas and communities to the health and vitality of America. ■

rural developments



News and resources from the Environmental Protection Agency

EPA releases web-based database for Drinking Water violations



WASHINGTON (EPA) — EPA has announced improvements to the availability and usability

of drinking water data in the Enforcement and Compliance History Online (ECHO) tool. ECHO now allows the public to search whether drinking water in their community met the standards required under the Safe Drinking Water Act (SDWA), which is designed to safeguard the nation's drinking water and protect people's health. SDWA requires states to report drinking water information periodically to EPA. ECHO also includes a new feature identifying drinking water systems that have had serious noncompliance.

"Today's improvements to EPA's ECHO tool support President Obama's directive to make it easier for the public to search for and use the information we collect," said Cynthia Giles, assistant administrator for EPA's Office of Enforcement and Compliance Assurance. "Improved access to information about our nation's drinking water is critical for communities, nonprofit organizations, public water suppliers, regulators and industry that all have a stake in ensuring the water in our communities is safe and healthy to drink."

The new information provides:

- users with information about whether their drinking water has exceeded drinking water standards
- a serious-violators report that lists all water suppliers with serious noncompliance
- EPA's 2009 National Public Water Systems Compliance Report, which is a national summary of compliance and enforcement at public drinking water systems

The serious-violators list identifies water systems that have had serious noncompliance due to a combination of unresolved violations. The data in ECHO shows that overall, the number of systems identified as serious violators continues to decrease due to lead agencies, in most cases the states, more efficiently addressing serious noncompliance. Currently, approximately 4 percent of all public water systems are considered serious violators. Through increased oversight and enforcement efforts, EPA will continue to work to reduce the rate of noncompliance and the number of public water systems that are serious violators.

Under the SDWA, water suppliers are required to promptly inform customers if drinking water has been contaminated by something that could cause immediate illness or impact people's health. If such a violation occurs, the water system will

announce the violation and provide information about the potential health effects, steps the system is taking to correct the violation, and the need to use alternative water supplies (such as boiled or bottled water) until the problem is corrected. Systems inform customers about violations of less immediate concern in the first water bill sent after the violation, in a Consumer Confidence Report, or by mail.

EPA's enforcement goals for clean water include working with states and tribes to ensure clean drinking water for all communities and improving transparency by making facility compliance data available to the public. The release of drinking water violations data in ECHO advances these goals and creates additional incentives for government agencies to improve their reporting of drinking water violations and increase efforts to address those violations.

Safe Drinking Water Act search page: www.epa-echo.gov/echo/compliance_report_sdwa.html

Enforcement and Compliance History tool: www.epa-echo.gov/echo

Coming Together for Clean Water Strategy released

The EPA has released *Coming Together for Clean Water: EPA's Strategy to Protect America's Waters*. This strategy charts a



Coming Together for Clean Water
 EPA's Strategy to Protect America's Waters

path for meeting the nation's clean water strategic plan goals over the next several years. Protecting the nation's water resources is not only important to the health of the nation's citizens and the environment, but clean water is also a critical resource for the economy.

In April 2010, EPA Administrator Lisa Jackson brought a broad range of stakeholders together for the Coming Together for Clean Water forum. The discussion at the forum focused on how to reinvigorate the nation's clean water programs to achieve a significant leap forward in clean water protections.

The Coming Together for Clean Water strategy presents a framework for how EPA's national water program will address the challenges and highlights EPA's priorities for achieving clean water goals. This strategy focuses on the following key areas: ensuring transparency and effectively reporting on the health status of all waters; increasing protection of source waters and healthy watersheds; restoring degraded waters and ecosystems; reducing the amount of pollution entering our waters that impact our health and our economy; and tackling new and emerging threats to our waters in a way that will ensure healthier, more livable communities. This vision for EPA's programs

is important to consistent and collaborative efforts between EPA, state and tribal partners, local government partners, the private sector and the public in order to achieve significant improvements to our nation's water quality.

'Waters of the U.S.'
proposed guidance

Americans depend on clean and abundant water. However, over the past decade, interpretations of Supreme Court rulings removed some critical waters from federal protection and caused confusion about which waters and wetlands are protected under the Clean Water Act. As a result, important waters now lack clear protection under the law, and businesses and regulators face uncertainty and delay. The Obama Administration is committed to protecting waters on which the health of people, the economy and ecosystems depend.

The EPA and the U.S. Army Corps of Engineers have developed draft guidance for determining whether a waterway, water body, or wetland is protected by the Clean Water Act. This guidance would replace previous guidance to reaffirm protection for critical waters. It also will provide clearer, more predictable guidelines for deter-

mining which water bodies are protected by the Clean Water Act.

The draft guidance will reaffirm protections for small streams that feed into larger streams, rivers, bays and coastal waters. It will also reaffirm protection for wetlands that filter pollution and help protect communities from flooding. Discharging pollution into protected waters (e.g., dumping sewage, contaminants, or industrial pollution) or filling protected waters and wetlands (e.g., building a housing development or a parking lot) require permits. This guidance will keep safe the streams and wetlands that affect the quality of the water used for drinking, swimming, fishing, farming, manufacturing, tourism and other activities essential to the American economy and quality of life. It also will provide regulatory clarity, predictability, consistency and transparency.

The draft guidance is open for public comment to allow all stakeholders to provide input and feedback before it is finalized.

Read more: <http://water.epa.gov/lawsregs/guidance/wetlands/CWAwaters.cfm>

Community-based Water-resiliency electronic tool now available for download

The EPA has released the Community-based Water-resiliency (CBWR) electronic tool. It is an easy way to assess your current resiliency to water-service interruptions and learn about tools and resources to enhance resiliency in your community. This tool was developed in collaboration with stakeholders from the community and includes more than 350 resources.

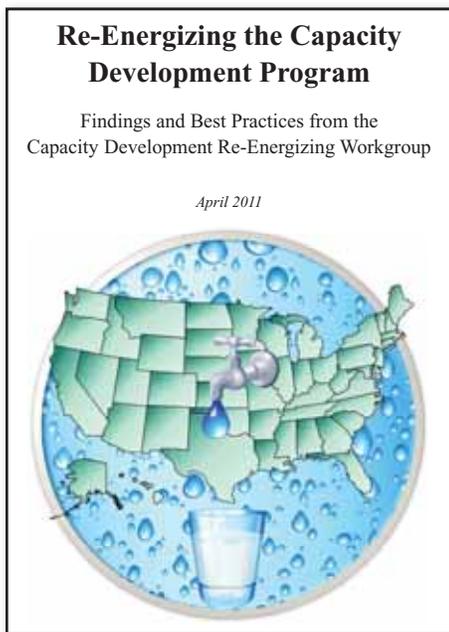


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The tool is available at http://yosemite.epa.gov/ow/SReg.nsf/description/CBWR_e-tool

Additional information on the Community-Based Water-resiliency Initiative can be found at <http://water.epa.gov/infrastructure/watersecurity/communities/index.cfm>

EPA announces release of re-energizing the capacity-development program report



The EPA has made available a report titled *Re-Energizing the Capacity Development Program: Findings and Best Practices from the Capacity Development Re-Energizing Workgroup*. This report is the product of the workgroup's goals to better understand existing implementation efforts of EPA's drinking water program, evaluate roadblocks to developing capacity, and identify best practices to facilitate state program implementation. In 2010, EPA partnered with eight states and the Association of State Drinking Water Administrators to form the workgroup to assess the Capacity Development program's progress and bring renewed attention to it. The program was established under the 1996 Amendments to the Safe Drinking Water Act to provide

a framework for EPA, states and systems to work together to ensure that drinking water systems attain short- and long-term capacity.

Public drinking water systems regulated by EPA and delegated states and tribes provide drinking water to about 90 percent of Americans. Providing safe drinking water is a partnership that involves EPA, the states, tribes, water systems and their operators.

The report provides case studies that may be useful for states, utilities and regions in their capacity-development drinking water programs.

Electronic versions of the document may be found on the EPA website at http://water.epa.gov/type/drink/pws/smallsystems/state_guidance.cfm

Two new water-security products

Planning for a pandemic

A pandemic is a global disease outbreak. In a severe pandemic, absenteeism will increase from illness, the need to care for ill family members, and the fear of infection. Utilities that fail to prepare for the likelihood of pandemic flu may find themselves without the staff, equipment, or supplies necessary to continue providing safe drinking water or treating wastewater for

their community. Utilities should integrate pandemic flu planning into existing business-continuity and emergency-response plans using available guidance documents and other tools for assistance.

EPA has a new webinar titled "Pandemic Influenza Planning and Preparedness: Lessons Learned for the Water Sector." Find it at <http://water.epa.gov/infrastructure/watersecurity/emergency/pandemicflu/index.cfm>

Neighbor helping neighbor

A Water and Wastewater Agency Response Network (WARN) is an intrastate network of "utilities helping utilities" to respond to and recover from emergencies by sharing resources with one another. The WARN framework provides a forum for maintaining emergency contacts, providing expedited access to specialized resources, and facilitating training on resource exchange during an emergency. The American Water Works Association has published a white paper titled *Utilities Helping Utilities: An Action Plan for Mutual Aid and Assistance Networks for Water and Wastewater Utilities* to provide utilities with the basic building blocks for developing a successful WARN. Find it at www.awwa.org/files/Advocacy/Govtaff/Documents/Utilities_Helping_Utilities.pdf

Find a fact sheet titled "Mutual Aid/Assistance Agreements: Integrating WARN and other Mutual Aid Agreements" at <http://water.epa.gov/infrastructure/watersecurity/mutualaid/index.cfm> ■



ruraldevelopments

Interactive 2010 U.S. census map available

The New York Times has made an interactive 2010 U.S. census map available. Click to view population data for individual counties or view the data by state: <http://projects.nytimes.com/census/2010/map>

Reports on ARRA funds released

From EPA

EPA has released a report highlighting the important role of the Clean Water and Drinking Water state revolving funds (SRFs) in implementing the American Recovery and Reinvestment Act (ARRA) of 2009. Together, the SRFs executed more than 3,200 assistance agreements worth more than \$5.6 billion for clean water and drinking water projects. The report, titled "Implementation of the American Recovery & Reinvestment Act of 2009—Clean Water and Drinking Water State Revolving Fund Programs," includes case studies that emphasize the role of ARRA in funding wastewater and drinking water infrastructure projects that will contribute to long-term economic productivity, environmental sustainability, and public health protection, many of which would not have otherwise been funded.



To view a copy of the report, visit: <http://water.epa.gov/aboutow/eparecovery/index.cfm>

For additional information on the SRF programs, please visit the Clean Water State Revolving Fund program website at http://water.epa.gov/grants_funding/cwf/cwsrf_index.cfm, and the Drinking Water State Revolving Fund program website at http://water.epa.gov/grants_funding/dwsrf/index.cfm

From USDA

U.S. Department of Agriculture Secretary Tom Vilsack has issued a report showing the impact of ARRA investments on renewing America's rural areas by improving water and wastewater infrastructure for more than 1.7 million residents.

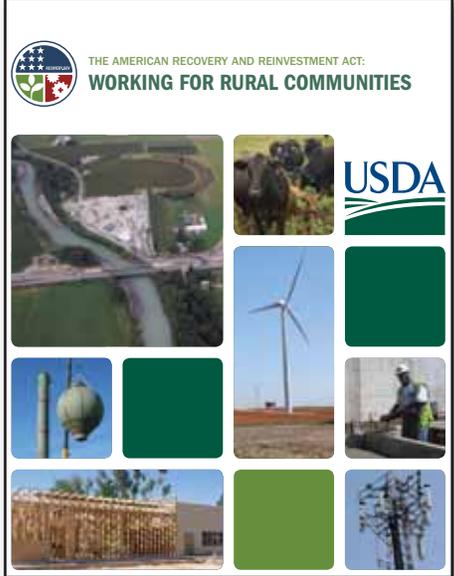
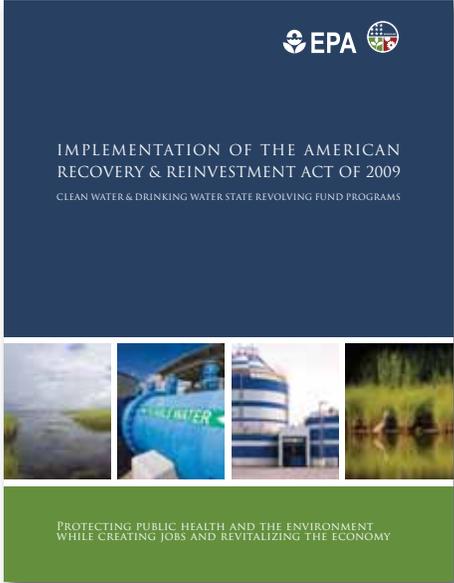
The report, *The American Recovery and Reinvestment Act: Working for Rural Communities*, was released on March 9 and outlines how federal investments under ARRA are helping rural communities in all 50 states and territories.

"Not only are Recovery Act projects breathing life into rural economies and putting rural residents back to work, but they are laying a new foundation for growth and economic competitiveness," Vilsack said.

The report emphasizes that "the importance of water in rural communities cannot be overstated," and states that water and waste water programs invested more than \$3.3 billion in over 850 programs. These programs benefited more than 1.7 million residents of rural communities and created and saved over 60,000 rural jobs.

Of 1,870 projects in the Clean Water National Information management system, roughly 60 percent serve populations under 10,000.

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Planning for an emergency drinking water supply

Collaboration and partnership between various levels of government is critical for providing emergency water supplies. A recently released report, *Planning for an Emergency Drinking Water Supply*, is the result of a collaborative effort between the American Water Works Association and the EPA National Homeland Security Research Center with support from CDM.

The report is not guidance on how to comply with any particular law but is a resource to review of the roles and responsibilities of various levels of government and for essential planning steps. All government entities and others responsible for emergency water supplies should coordinate roles, identify approaches, and estimate resources. Preplanning leads to more effective and efficient operations under emergency conditions. The report covers the technical details of this planning and presents key findings to improve the nation's responsiveness when the need for an emergency water supply emerges.

Find the report at:

www.awwa.org/files/GovtPublicAffairs/PDF/PlanningSupply.pdf



New resource on fracking

There's a new resource available on the topic of hydraulic fracturing, an area of emerging concern for drinking water protection.

FracFocus.org, a registry for hydraulic fracturing chemicals, is a joint project of the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission. The website includes information on the chemicals used in the hydraulic

fracturing process as well as general educational materials.

Site visitors can browse fracturing regulations by individual state, view chemicals used and even search information for specific wells. The information is limited, however, as it is voluntarily supplied by companies with hydraulic fracturing operations.

More commonly known as "fracking," hydraulic fracturing uses chemicals to loosen and recover natural gas from wells pocketed inside coal beds and shale rock formations. Fracking is potentially harmful to drinking water resources due to a lack of regulation about what chemicals can be injected underground. The EPA Safe Drinking Water Act does not prohibit the underground injection of fluids or other agents required for oil or gas fracking operations.

Democrats in the U.S. House of Representatives released a report on April 16 that identified 750 substances used during fracking operations from 2005-2009.

So, while it provides only some answers on a complex and emerging topic, *FracFocus.org* is a good starting point for small utility managers in beginning to understand and monitor the effects of fracking on drinking water systems.

USDA Secretary speaks about environmental justice in rural America

In a keynote speech at an April environmental conference, U.S. Department of Agriculture (USDA) Secretary Tom Vilsack stressed that rural communities must not be overlooked in the conversation of environmental justice and equality.

Vilsack's speech underscored the importance of the work RCAP does each and every day to ensure that America's rural communities receive assistance in securing funding and accessing clean, reliable water and wastewater systems.

Vilsack spoke at the fifth annual State of Environmental Justice conference held in Washington, D.C., April 27 to 29. Environmental justice is the concern that certain communities, notably poor and rural communities, are more subject to environmental hardships than wealthier areas.

In his remarks, Vilsack said that rural America has a great opportunity to produce renewable energy and benefit from job creation. But he emphasized that the USDA equity program is key to the success of small, rural communities.

"We will do a better job of making sure people in poor counties know about our programs," Vilsack said. "People think the applications are too complicated....The reality is, folks don't think they can participate and they can't if they don't apply."

The secretary spoke to reporters at the Rural Blog after his speech. He said that the fact that 84 percent of Americans live in cities or suburbs leaves rural areas largely overlooked.

"We don't want to forget those 16 percent" in rural communities, Vilsack told the Rural Blog. He said that USDA has funded 2,575 clean water projects over the past two years to improve wastewater and sewage treatment.

Vilsack was quoted by Wayne Maloney on the USDA blog as saying that USDA was preparing a "strike force" to target states with rural poverty. Vilsack also introduced a new "Great Regions" approach, which will allow small communities to join together to develop assistance in partnership with nonprofit organizations.

"That tells me there is extraordinary need in rural America for clean water," he told reporters.

"That's all about environment, and it's clearly about justice because if you don't have clean water, you don't have economic opportunity, and that's so often forgotten."

■



Obama administration establishes White House Rural Council to strengthen rural communities

WASHINGTON (WH)—The White House announced the establishment June 9 of the first White House Rural Council. While rural communities face challenges, they also present economic potential. To address these challenges, build on the administration's rural economic strategy, and improve the implementation of that strategy, the president signed an Executive Order establishing the White House Rural Council.

"Strong rural communities are key to a stronger America," said President Barack Obama. "That's why I've established the White House Rural Council to make sure we're working across government to strengthen rural communities and promote economic growth."

The council will coordinate programs across government to encourage public-private partnerships to promote further economic prosperity and quality of life in rural communities nationwide. Chaired by Secretary of Agriculture Tom Vilsack, the council will be responsible for providing recommendations for investment in rural areas and will coordinate federal engagement with a variety of rural stakeholders, including agricultural organizations, small businesses, and state, local, and tribal governments.

"Rural America makes significant contributions to the security, prosperity, and economic strength of our country," said Vilsack. "The Rural Council announced by President Obama shows his continued focus on promoting economic opportunity, creating jobs, and enhancing the quality of life for those who live in rural America. Together with the rest of the Obama administration, USDA has worked to support families and businesses in rural communities so that their success will pay dividends for all Americans."

In the coming months, the White House Rural Council will focus on job creation and economic development by increasing the flow of capital to rural areas, promoting innovation, expanding digital and physical networks, and celebrating opportunity through America's natural resources. The council will begin discussing key factors for growth, including:

- **Jobs:** Improve job training and workforce development in rural America
- **Agriculture:** Expand markets for agriculture, including regional food systems and exports
- **Access to credit:** Increase opportunity by expanding access to capital in rural communities and fostering local investment
- **Innovation:** Promote the expansion of biofuels production capacity and community based renewable energy projects
- **Networks:** Develop high-growth regional economies by capitalizing on inherent regional strengths
- **Health care:** Improve access to quality health care through expansion of health technology systems
- **Education:** Increase post-secondary enrollment rates and completion for rural students
- **Broadband:** Support the president's plan to increase broadband opportunities in rural America
- **Infrastructure:** Coordinate investment in critical infrastructure
- **Ecosystem markets:** Expanding opportunities for conservation, outdoor opportunities and economic growth on working lands and public lands

Since taking office, Obama's administration has taken significant steps to improve the lives of rural Americans and has provided broad support for rural communities. In the long term, these unparalleled rural investments will help ensure that America's rural communities are repopulating, self-sustaining, and thriving economically. ■

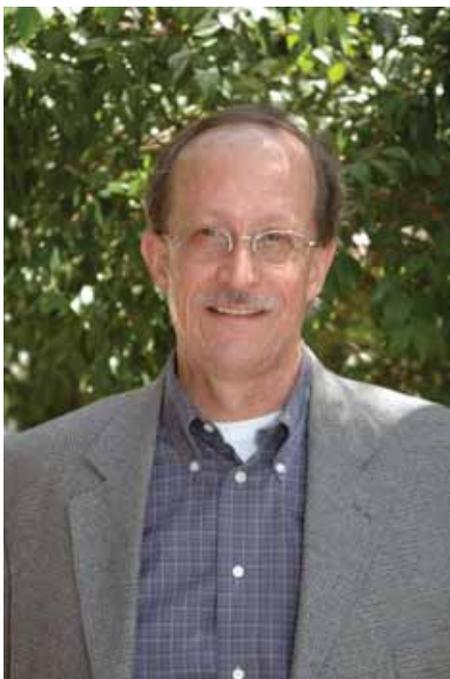
RCAP

network news

New member on national board of directors

Jon Townsend was elected to RCAP's national board of directors at its Feb. 17 quarterly meeting. He is no stranger to RCAP, however. He currently serves on the board of directors of the Rural Community Assistance Corporation (RCAC), the Western RCAP.

Townsend has more than 30 years of experience working with state and local governments, large businesses, and non-profit organizations, and has taught at a variety of schools and universities. He is principle member of the consulting firm AgreementsWork, West Linn, Ore., which provides mediation, facilitation and negotiation services for cross-cultural conflict and workplace conflict.



He is the founder of the Clackamas County (Oregon) Dispute Resolution Center and is a member of the Association for Conflict Resolution and the Oregon Mediation Association. He is a citizen of the Muscogee (Creek) Indian Nation and has a master's degree in psychology.

Townsend replaces Kip Bowmar as an at-large member of the board.

RCAP staffer appointed to head EPA committee

Olga Morales, Rural Development Specialist in New Mexico with the Rural Community Assistance Corporation (RCAC), the Western RCAP, was appointed to a second term as chair of the Environmental Protection Agency's National Drinking Water Advisory Council.

In a June 8 letter from EPA Administrator Lisa Jackson, Morales was invited to serve for three more years as head of the council, which is comprised of members of the general public, state and local agencies, and private groups concerned with safe drinking water and advises Jackson on everything that the agency does relating to drinking water.

"...you provide the council with your best independent judgment, based on your public water system expertise and strong interest in protecting public health and drinking water," Jackson wrote. "Your contributions to the council have been invaluable, and we appreciate your thoughtful and solid advice on implementing the statutory requirements and program activities



mandated under the Safe Drinking Water Act."

In speaking about her appointment and representing RCAP on the council, Morales wrote: "It is our time to reap the benefits of all our hard work, and it is also time to reflect on the fact that our responsibilities and expectations as an organization have just been raised; this will set us apart from other organizations."

In other news, Morales has also been chosen to be a Paso del Norte Health Foundation Next Generation Leader. Morales was elected out of more than 78 candidates by the foundation to be part of the first group of 20 participants to attend REALIZE, a 15-month program designed to tackle public health challenges in southern New Mexico, western Texas, and the neighboring border areas of Mexico to "ensure the population is healthy and thriving." Cus-

tom-designed for each participating group, REALIZE is a transformational leadership model that will enhance leadership and management skills and effect change for individuals and social systems.

“We are excited to have Olga take part in this program to prepare her for more significant responsibilities within our organization,” said Stan Keasling, RCAC’s CEO.

Morales is RCAC’s lead trainer for New Mexico, certified in graphic facilitation and bilingual in English and Spanish.

“As technical assistance providers working in small, disadvantaged communities, many times we serve as community leaders. Being part of REALIZE will give me the ability to reinforce and enhance RCAC’s leadership program by incorporating a new skill set that will help develop transitional community leaders,” said Morales. “The foundation had the wisdom to recognize the importance and direct nexus between water, wastewater and solid waste connection and public health and as representatives of that side of the public health

protection effort; I am honored to be part of this new public health approach for the border area.”

RCAP staff member wins award

Chris Marko, a Rural Development Specialist–Environmental with the Rural Community Assistance Corporation (RCAC), the Western RCAP, was presented with the Ron Shaffer Award for Collaborative Leadership from the National Rural Development Partnership (NRDP) June 9 in Washington, D.C.

According to Marko, he was nominated for the award by three peers in Oregon. The award recognizes his work in bringing people together from different sectors to improve rural programs and policy at the state and national levels and in serving as a resource for rural communities through interagency coordination, rural policy forums, Rural Oregon Day, and technical assistance for rural communities with RCAC.

NRDP brings together partners from all levels of government as well as private for-profit and nonprofit organizations to address the needs of rural America. Its award was established in honor of Shaffer, who worked in the field of community economic development worldwide. ■



Cover photo

The photo on the cover of this issue of *Rural Matters* is one of the winners of RCAP’s national photo contest. In fall 2010, the RCAP national office held a photo contest to challenge RCAP staff across the country to “picture RCAP”—to illustrate their work or what RCAP does in photographs. Another purpose of the contest was to continue 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 contest culminated at RCAP’s national conference in late November 2010 in Washington, D.C., where the winners were announced.

The cover photo was the winner in the “audience favorite” category, which included entries from the contest’s other three categories (rural landscapes/nature; facilities/infrastructure; and people). It was chosen by participants in RCAP’s national conference.

The photo was taken by Kurtis Strickland, Rural Development Supervisor in Ohio for Great Lakes RCAP. It shows a duct-taped well head, “a perfect visual of how small, rural communities use their infrastructure as long as they can before it is replaced,” said Strickland.

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



Inequality rising in rural and urban America

From *The Daily Yonder*

A report by the rural news blog *The Daily Yonder* found that, while income inequality continues to increase between counties in both rural and urban areas of the U.S., income gains in richer counties are outpacing gains in poorer places.

According to the article, rural areas experienced an expansion in the income gap between the wealthiest and least-affluent counties. But this income gap is still smaller than that in American cities.

When the recent financial crisis began in late 2007, media reports noted that income inequality in the U.S. was at a historic level, unequalled since the time of the 1929 stock market crash and the ensuing economic depression. Case in point: In 2007, the top 1 percent of wealthiest Americans took home nearly a quarter of the nation's income.

The per capita market income gap between the wealthiest 10 percent non-metro counties and the poorest 10 percent of non-metro counties increased from 2.5 in 1980 to 2.7 in 2008. In simpler terms, the wealthiest 10 percent of non-metro counties saw their average incomes increase 57 percent compared to a 41 percent gain in the poorest 10 percent of non-metro counties.

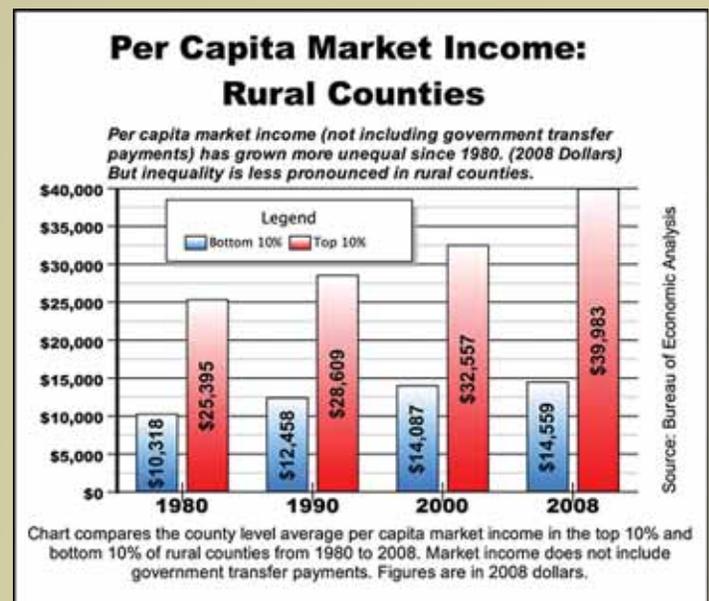
Without question, rural counties—be they at the upper or lower end of the per capita market income continuum—could not keep pace with the income growth experienced by metro counties. For example, the top 10 percent of the wealthiest metro counties in the U.S. had a per capita market income in 2008 that was nearly 30 percent higher than that of the wealthiest 10 percent of non-metro counties. In 1980, income in the richest urban counties was 21 percent higher than in the richest rural counties.

In the area of poverty, both the overall individual poverty rate and child poverty rate are about two and a half times greater in coun-

ties on the top rung of the income inequality ladder than counties with the lowest levels of income inequality.

As the debates regarding the national debt continue to play out in Congressional chambers and state capitals across the country, decisions on investing or disinvesting in the safety net for people or places with the least amount of resources will be made. We would suggest that policy makers also consider the continuing increase in income inequality in this country—and the ill effects associated with this trend. ■

This article was adapted from the blog post at The Daily Yonder, by Roberto Gallardo and Bo Beaulieu: www.dailyyonder.com/inequality-rising-rural-and-urban-america/2011/04/20/3287





community profile

Bake sales and more buy Arizona community a new sewer system



Rural Community
Assistance Corporation
www.rcac.org

An outpouring of state and federal funding coupled with assistance from the Rural Community Assistance Corporation (RCAC), the Western RCAP, has one small Arizona community on the road to realizing its goal of improving a failing sewer system.

Avenue B & C Colonia, a community of approximately 1,000 homes located on the edge of Yuma, Ariz., consists of mostly trailers and modest houses. But despite being a stable neighborhood since the early 1900s, Avenue B & C has suffered from chronic sewage problems for years.

To fix the problem, the Colonia and its core of long-term residents needed to raise \$23 million. The community secured a majority of the funds from the U.S. Department of Agriculture (USDA) Rural Development and \$16 million in funds through the American Recovery and Reinvestment Act (ARRA) of 2009. The other \$5 million came through various state and federal agencies.

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Technical Assistance Providers from RCAP are supporting the community by helping it properly file quarterly reports on use of ARRA funds.

“By bringing in a variety of funding sources, this neighborhood where many struggle just to eke out a living will be able to get improvements that will give them sanitary sewage disposal and new pride and hope for their community,” said Alan Stephens, Arizona State Director for USDA Rural Development.

“For the 1,000 households in Avenue B & C Colonia, this project is a dramatic change for the good,” he said.

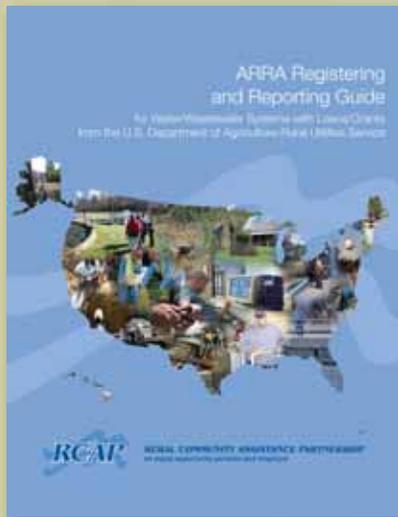
The push to fix the sewers came after one resident became fed up with the ailing system and failed attempts by residents to fix the problem themselves.

RCAP help for communities receiving ARRA funding – and for all small communities

In addition to the in-person assistance that RCAP’s regional partners provide to communities like Avenue B & C Colonia through their Technical Assistance Providers, RCAP has recently produced a guide to help communities fulfill the reporting requirements on their use of American Recovery and Reinvestment Act (ARRA) funds.

RCAP’s *ARRA Registering and Reporting Guide* is aimed at communities that have received Recovery Act loans and/or grants through the U.S. Department of Agriculture Rural Utilities Service.

The guide is intended for use by the leader or staff person of a small community water system who is responsible for registering



the utility and reporting on its use of ARRA funds with various federal and related agencies. Users of the guide are walked through the steps of registering for a DUNS number and with Central Contractor Registration, and with registering and using *FederalReporting.gov*. Most importantly, the step-by-step guide, written in a question-and-

answer format, helps small communities and systems comply with the reporting process associated with ARRA funds.

Along with being written in a clear and understandable language, the guide includes common mistakes to be avoided that the authors, actual RCAP Technical Assistance Providers in West Virginia, have witnessed in the communities they have worked with.

All communities that received ARRA loans or grants received a free copy of the guide from RCAP by mail in early March. Communities can also obtain the guide as a PDF on the RCAP website at www.rcap.org/commpubs. Communities can view it there and download and save a copy on their own computers.

Other resources to assist small communities in the operations and management of water utilities

Two more new guides for small community water systems will be released by RCAP in July.

RCAP’s *A Drop of Knowledge: The Non-operator’s Guide to Drinking Water Systems* and *A Drop of Knowledge: The Non-operator’s Guide to Wastewater Systems* were written for people who have a role or interest in their community’s water systems but not the technical knowledge or skills of a system operator. The guides are ideal for board members of utilities in small communities, elected leaders with oversight of a water system, or any decision-maker who is involved in a water system.

“There were times when sewage would bubble right out of the ground,” said longtime resident Gayle Castricone. “I raised my children in this Colonia. Now I want my grandchildren to be able to play in the neighborhood without having to worry about what health hazards they may encounter playing in the yard.”

Castricone spent several years gathering signatures from her neighbors for a petition in an effort to draw attention to the serious health problems of an inadequate sewage system.

Along with oozing sewage, septic system failures contaminate the Colonia’s air and ground, creating much more than an aesthetic problem. Located only a half mile from the Colorado River, the Colonia’s septic tanks leach into an area where the water table can rise sharply during farmland irrigation. When the water table rises, there is a dangerous potential for the sewage to seep into the river.

Castricone said that the prospect of a real sewer system has been motivating for her neighbors.

“We knew we would have to fight for this and fight to get money to pay for it,” she said. “We said we’ll have bake sales or whatever.”

But the \$23 million price tag for fixing the sewer system required far more than a bake sale, she said.

Castricone said it was a miracle when county, state, federal and private funding sources came together to create a package that would pay for the entire project. The funds will connect residents of the Colonia to the nearby water treatment system. ■

*This profile was provided by USDA Rural Development.
Photos courtesy of Yuma County Public Works.*

Designed to be used separately or together as companion pieces, the guides can be used as an orientation to new leaders or as background for long-time leaders.

The premise of the guides is that informed leaders make better decisions. The guides are designed to provide just enough information for leaders who are usually one step or more removed from the daily operations of a water system so they are able to make the occasional operations-related decision in an informed manner.

These three guides are the first to be published of 11 print resources that RCAP is developing to aid small, rural communities. The remaining guides, which are being produced this summer and fall, are on the topics of:

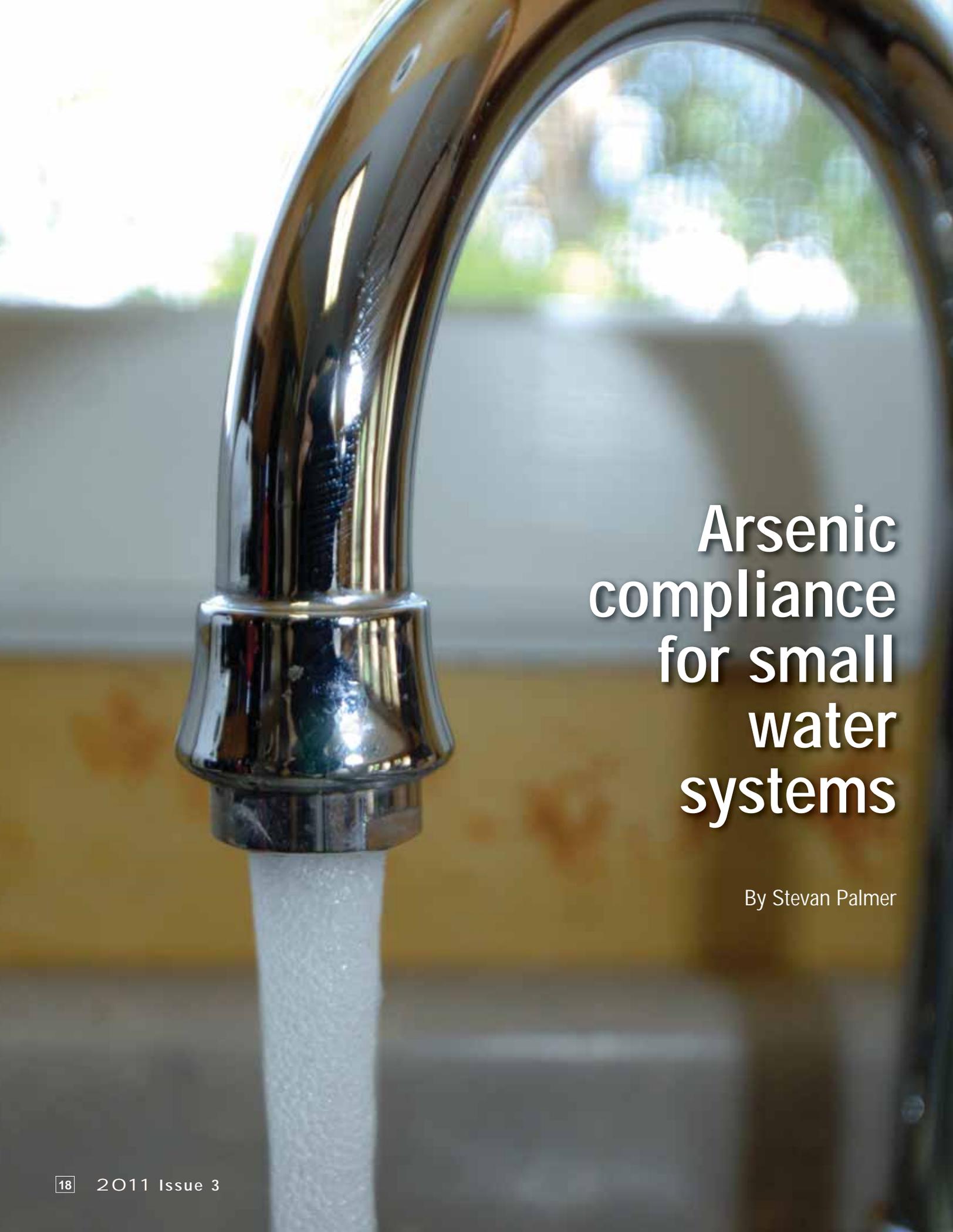
- managerial and financial requirements for communities that are receiving U.S. Department of Agriculture Rural Utilities Services (RUS) loan funds for their water or wastewater utility
- responsibilities (managerial, financial, legal, etc.) of board members of small water systems
- planning and resources for sustainable infrastructure for small water systems
- financial management of small water systems
- customer fees (setting rates, hookup fees, fines, etc.)
- developing and managing a water- or wastewater-construction project



- water-distribution system maintenance
- asset management and conducting vulnerability assessments and emergency-response planning

A list of all the guides is at www.rcap.org/commpubs, where links to the publications will be provided as each guide is finished. All guides will also be available from RCAP staff who work in communities.

The guidebooks are being funded by a \$5 million grant of ARRA funds secured by RCAP and furnished by the U.S. Department of Agriculture-Rural Development. ■



Arsenic compliance for small water systems

By Stevan Palmer

The maximum contaminant limit (MCL) for arsenic in drinking water was lowered to 0.010 mg/L nationwide in 2006.

It is important that all small water systems are in compliance with this lower standard. Many managers of small water systems are still trying to determine the best and most cost-effective way to address arsenic compliance.

Many water systems have very limited financial resources for modifying water-delivery infrastructure or installing expensive treatment technologies. Furthermore, a bewildering number of treatment technologies are available for arsenic, many of which are new and untried.

Some water systems have installed central treatments for arsenic only to have the vendor that supplied the treatment media go out of business. Operational costs for new treatment may end up being far higher than original estimates. It can be hard for a water system's governing board to know where to turn to be able to make responsible decisions.

Guidelines

Following are some guidelines that can assist water systems in plotting a course of action toward compliance with the regulations. These guidelines are not intended to replace consultation with a qualified, professional engineer when making important decisions about compliance-driven modifications to water systems or treatment processes. However, they can help a water system's staff and management identify some of the challenges and pitfalls that can be encountered in the process of assessing water-system compliance.

First, a water system may be eligible for compliance "extensions," which can allow

more time to address an arsenic problem within the system. Once granted an extension, the system will not be considered in violation until the extension expires. Small systems with arsenic levels slightly above the MCL of 0.010 mg/L may have until 2015 to comply with the new, lower standard. As of 2011, most water systems that are eligible will have already been granted extensions.

Even if your local primacy agency cannot give you an extension, do not be overly concerned. There are hundreds of water systems across the country facing the same difficulties. The most important thing is to

keep moving forward and plan for compliance in the future, regardless of your system's current status. Local primacy agencies are there to help and will work with water system staff to find the best and most economical solution to an arsenic problem.

Before considering the treatment of raw water, it is important to look at all other possible mitigation options. Treatment costs never go away, and although staff may be able to partially fund the installation of a new well or other infrastructure with grant money, there are no grant sources that cover operations and maintenance costs. Customers alone must pay these costs now and in the future.

Before starting water treatment, begin by asking these questions:

- Is it possible to find a new water source?
- Can you tie into a neighboring water system?
- Can you abandon a high-arsenic source and rely on other wells within your system?
- Can you blend a high-arsenic source with a lower-arsenic source so that the blended product contains less than 0.010 mg/L arsenic? It might be possible to run a high-arsenic source only in the summer, when demand is high, and blend the raw water in such a way that the running annual average stays less than 0.010 mg/L.
- Can you drill a new well in an area that is expected to be low in arsenic?

Carefully consider wells

Drilling a new well has its own risks. It may not produce enough water, or the water may still be high in arsenic or contain other contaminants that must be treated. Consider having "well-profile" testing performed on existing wells as it is sometimes possible to selectively block off different

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ARS chemist Clinton Church (center) works with UMES student Betty Chumbe-Kitur (left) and other UMES students to measure arsenic levels in water samples from Princess Anne, Maryland.

Photo by Stephen Ausmus, USDA.

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intervals of a well screen and minimize the level of arsenic produced by the well.

Well-profiling tests can help determine the potential financial benefits of well modification. Even though the costs of testing and modifying a well can be significant, it may be the most cost-effective alternative in the long term. An engineer can determine if any existing production wells might be good candidates for profile testing. Keep in mind that well modification can potentially be used to eliminate or reduce other contaminants in addition to arsenic.

Sometimes even minor changes in the design or operation of a well, such as changing the pumping rate or moving the position or diameter of the pump intake, can significantly affect the water quality. Ultimately, even if the arsenic concentration in the well water can't be reduced below the required levels, the ongoing cost of treatment will be reduced. This can add up to substantial savings over the life of a well.

Treatment

If there are no real non-treatment options, then installing treatment may be the best alternative. When it comes to removing arsenic from water, remember that one size does not fit all. Many treatment-technology vendors may claim that their product is the only treatment technology that any water system ever needs. In reality, raw water chemistry and waste-disposal options are the two factors that generally determine the most efficient and cost-effective type of water-treatment technology for a particular system.

First, consider waste disposal. When arsenic is removed from drinking water, it ends up being concentrated into a waste product, such as sludge, brine or spent adsorptive media. After testing, this waste product may be determined to be hazardous waste due to the toxic characteristics of the arsenic or other contaminants and may be very expensive to properly dispose.

Ion exchange is an effective treatment technology for arsenic but produces large quantities of 10 percent brine solution, which also contains arsenic.

The brine has the potential to disrupt sewer ponds or package plants if disposed of “down the drain,” even if it is deemed non-hazardous. Disposal of this brine into septic tanks would have the same effect. Because of this, the only feasible disposal option for most water systems is transporting the brine to a hazardous-waste processing facility, which would be cost-prohibitive. The waste-disposal challenges would make ion exchange a poor choice for many systems, regardless of how well the treatment process itself performs.

Therefore, consider raw water chemistry. Many times, a characteristic of the raw water may interfere with a certain type of treatment process. Common interferences include:

- high silica, iron or manganese in the source water, which tends to “blind off” adsorptive media and shorten the effective life of the media, increasing operational costs
- high sulfate can shorten ion exchange runs and require frequent regeneration of the media, increasing costs
- high pH drastically reduces the amount of raw water-activated alumina that the media can treat before it is exhausted

There are several ways to determine what technology may be appropriate for a raw water system based on water chemistry. Visit the Environmental Protection Agency’s Arsenic Virtual Trade Show, which is “a learning portal designed to help water systems comply with EPA’s Arsenic Rule”: <http://cfpub.epa.gov/safewater/arsenic/arsenictradeshow>

This EPA tool asks a series of questions about the quality of your raw water. Most of the information requested will have already been collected from the routine water-quality monitoring program, as



*Soil scientist Lloyd Owens collects a water sample from a spring in a pasture.
Photo by Peggy Greb, USDA.*

required by the health department. Once the decision tree is completed, the site will suggest one or more types of treatment technology based on your answers.

POU or POE treatment

Very small water systems have the option of using point-of-use (POU) or point-of-entry treatment (POE) for eradicating arsenic. Point-of-use treatment involves using a small, commercially available treatment unit that is generally installed in the cabinet under the kitchen sink in a customer’s home. The EPA has specifically named reverse-osmosis or activated-alumina POU as appropriate small systems compliance technologies (SSCT) for treatment of arsenic.

The benefits of using a POU might well outweigh the disadvantages. Since only the water used for drinking, cooking and dishwashing is actually treated, the overall treatment costs with POU or POE can be very low for small water units. The chief disadvantage is the liability to the water system. The under-the-sink units remain the property and responsibility of the water system.

The water system is also responsible for sampling and testing the units in order to demonstrate the system’s compliance to the state government. The water system’s staff must be able to enter 100 percent of customers’ homes in order to maintain and sample the units and ensure they are functioning properly. Other insurance and liability issues include payment of damages if piping in a treatment unit leaks and causes damage to a customer’s home.

If these drawbacks can be adequately addressed, the treatment costs per customer of using POE can be very attractive compared to the costs of installing a central treatment plant. This is especially true for the smallest water systems. Rules regarding the acceptance of POU or POE treatment vary widely from state to state, and it is best to contact your local primary agency with questions regarding types of treatments permitted in your area.

Research required

If the staff or management of a water system intends to fund an arsenic-remediation project through typical funding agencies

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such as the U.S. Department of Agriculture Rural Development, state revolving funds (SRFs), or community development block grants (CDBG), then expect to be required to commission a preliminary engineering report (PER).

The PER should include a comprehensive analysis of at least three options for bringing the system into compliance, along with the capital and operations and maintenance (O & M) costs for each option. The PER is an important tool for assisting a water system's management in making informed decisions. Look this report over carefully, and ask questions, such as:

- Have all the non-treatment options been fully explored, including well-profile testing?
- How were the O & M costs estimated?
- What kind of guarantee can the engineer or treatment technology vendor give you that the operational costs estimates are accurate?
- Can you get a guarantee that the treatment technology will perform as advertised with your system's raw water?
- Has testing been done to determine if the wastes produced are hazardous, and has the cost of disposing of these wastes been calculated?

- Can the engineer train your treatment operator to run the treatment plant once it is installed?
- Is technical support available to assist your treatment operator with working through start-up problems?
- Has the treatment technology suggested been proven to work with your system's actual raw water?

When considering the use of any specialty, proprietary treatment media, it is also important to research the history of the supplier. Find out if the product is new and if it is being used in other production-treatment plants. Make sure your technology vendor is financially stable. You do not want to construct a treatment plant designed for a certain brand of media only to have your supplier go out of business. Unfortunately, this has happened to other water systems.

When choosing a treatment technology, there may be a choice between processes that provide simplicity and ease of operation and those that require more skills from an operator but have lower O & M costs. For instance, iron-based adsorptive media can be run until exhausted then simply thrown away. This requires little operator skill, but the replacement of media can be very expensive. A coagulation filtration

plant is more complex and requires more operator expertise to operate, but the costs of materials tend to be lower, and much more of the O & M costs end up being spent on an operator's wages.

Some water system managers decide to spend more money on professional development for their operators and pay higher wages for a higher-grade operator, as opposed to spending that money on media suppliers. For a given treatment technology, it is valid to consider how much of the O & M expenses go to local suppliers and utility staff wages versus suppliers from outside the community.

As a utility operator or manager, understanding the basics of arsenic treatment and asking appropriate questions of your engineer and vendor can help prevent costly mistakes or oversights down the road. For more information about arsenic compliance and treatment, contact to your local primacy agency or a technical assistance provider, such as those who work for RCAP and provide services for free in small, rural communities across the United States. ■

Palmer is a technical assistance provider in Nevada for the Rural Community Assistance Corporation, the Western RCAP.



To measure runoff in the Pacific Northwest, plant physiologist Steve Griffith collects water samples from a monitor well inside the riparian zone near the Calapooya River.

Photo by Brian Prechtel, USDA.

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