

RURAL matters



2012
Issue 2

The magazine of the Rural Community Assistance Partnership

A collage of four photographs showing rural American scenes: a house with an American flag, a porch with a brick walkway, a brick building, and a parade with a band.

Celebrating summer in rural America

Inside this issue:

Six things to improve your utility

Reframing the thinking about
change in rural areas

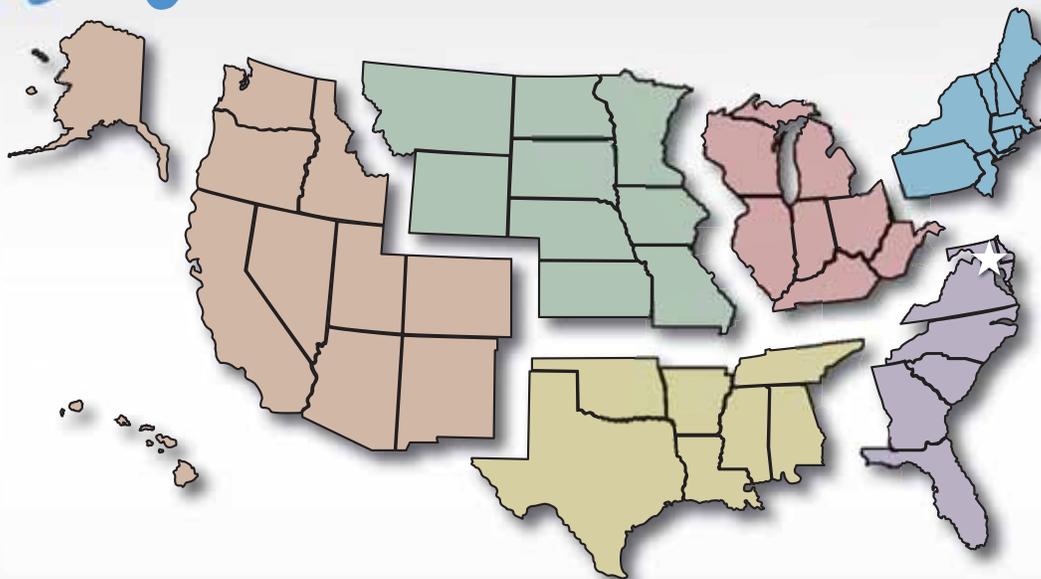
Need help with your community's water or wastewater system?

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

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(916) 447-2854
www.rcac.org

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

Southern RCAP

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

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

Southeast RCAP

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

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Photo by Aaron Fischbach

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The change in rural areas, fully framed





Practical solutions for improving rural communities



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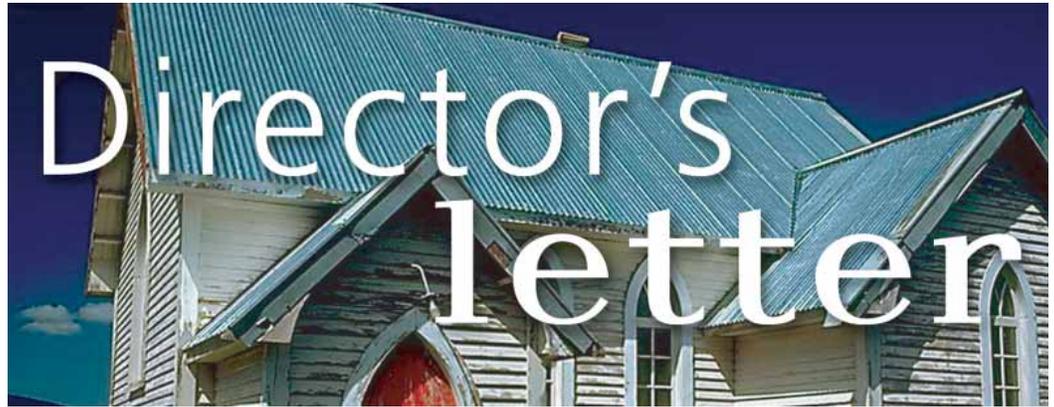
Cover photos by Stephen Padre

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Director's Letter



Robert Stewart
RCAP Executive Director

*Summertime,
And the livin' is easy
Fish are jumping
And the cotton is high*

These lines from George Gershwin's *Porgy and Bess* evoke a commonly shared feeling about this time of the year. Whether you grew up in a rural area or in the middle of the city, most of us view summer in a positive light. For students, it means a break from school; for many others, a vacation; for agricultural producers, a time of hard work and high hopes for a coming successful harvest; and for most of America, a season of warmer temperatures, clear skies and an opportunity to enjoy the many bounties of nature.

However, in large areas of the country, summertime is a difficult period for water utilities and their dedicated staff. Record droughts in 2011 have extended into this year, challenging the resources and resourcefulness of water providers. My home state of Texas has been hard-hit by drought as well as New Mexico and large areas of the Southeast.

Water utilities are implementing aggressive conservation measures, examining new or alternative supply sources, repairing leaks, and trying to figure out how to pay for it all. All of us can contribute by taking steps to limit our own water use and by being supportive of water utilities' efforts aimed at ensuring uninterrupted supplies of water for household, commercial and industrial uses.

As described in this issue, one area in Kentucky has moved forward with a large, regional treatment plant to serve many systems in a multi-county area. Although higher rates are expected, by making this investment now in their communities' future, the City of Somerset and its wholesale customers will be better-prepared to meet increasing population demands and support new economic activity.

The idea of investing for the future, of making sacrifices now for the betterment of the next generation, has been a distinguishing characteristic of Americans. All of us are now enjoying the benefits of previous generation's investments in infrastructure, transportation networks, and education and information systems. Water and wastewater utilities are an area where investments are needed now in order to maintain and sustain these critical services that ensure public health and promote economic growth.

A brief summary of a recent American Water Works Association report that examines water infrastructure needs is also in this issue. As with Gershwin's *Bess*, I believe that all of us want to be able to reassure our children and their children that summertime in the future will always be a time to enjoy the bounties of nature and the fruits of our labors.

I also want to welcome a new member to the RCAP board of directors—Jennifer McLaughlin, president of Nalu Energy in Columbus, Ohio (more information about her will be in the next issue). We also bid a fond farewell to Viki Kimsal, who served on the RCAP board for nearly ten years. Viki contributed enormously to RCAP's work. Her compassion, enthusiasm, and unflinching positive attitude were contagious. She was a friend to us all, and we wish her the very best in the future. ■

rural developments

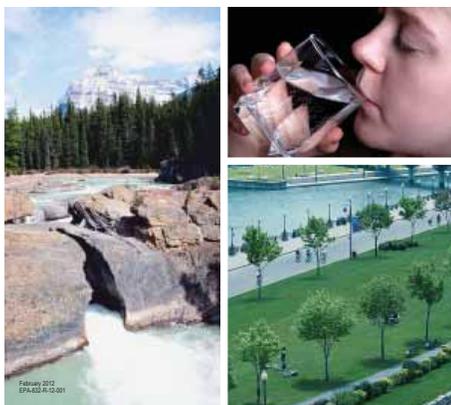


News and resources from the Environmental Protection Agency

Planning for Sustainability



A Handbook for Water and Wastewater Utilities



Handbook to help water utilities plan for sustainability

EPA has released a comprehensive handbook to help water utilities build sustainability considerations into their planning. *Planning for Sustainability: A Handbook for Water and Wastewater Utilities* will help utilities ensure that water-infrastructure projects, including those funded through the state revolving-fund programs, are sustainable and support the long-term sustainability of the communities these utilities serve.

The handbook represents an important milestone in EPA's ongoing efforts to help ensure the sustainability of the nation's water infrastructure based on the agency's

clean water and safe drinking water infrastructure sustainability policy, which was issued in September 2010. In developing the handbook, EPA worked closely with a number of utility and state program managers around the country. The handbook describes four core elements where utilities can explicitly build sustainability considerations into their existing planning processes. Each element contains relevant examples from utilities around the country and other implementation tips for utilities to consider.

Get the handbook at http://water.epa.gov/infrastructure/sustain/sustainable_systems.cfm

Fact sheet on Ground Water Rule compliance

EPA has a new fact sheet about simultaneous compliance under the Ground Water Rule. It is the latest in a series of guidance documents intended to provide a simple and straightforward description of the rule, critical deadlines and requirements for drinking water systems and states, and information on monitoring requirements.

Find it at http://water.epa.gov/lawsregs/rulesregs/sdwa/gwr/upload/final_draft_gwr_sc_factsheet_9-21-11_1.pdf

Guide to regulations for surface water systems

EPA has developed a new "plain-English" guide to its group of Surface Water Treatment Rules.

The guide presents an overview of the SWTR's requirements as well as attachments that provide a detailed description of the rule requirements for water systems according to system size and filtration status.

Find the guide at <http://water.epa.gov/lawsregs/rulesregs/sdwa/swtr/upload/SWTRPlainEnglishGuideFinal.pdf>

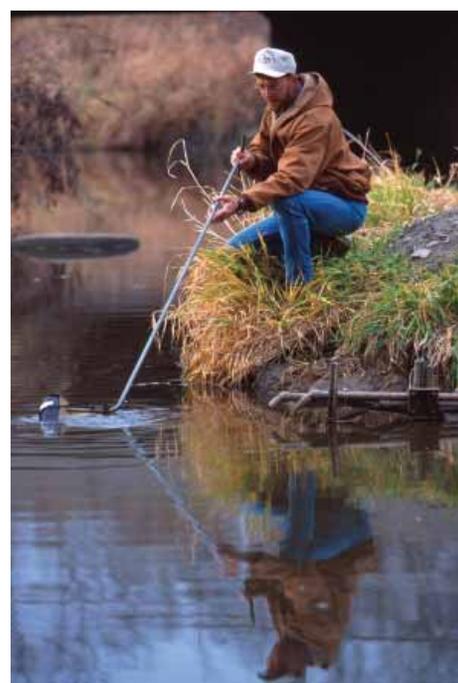
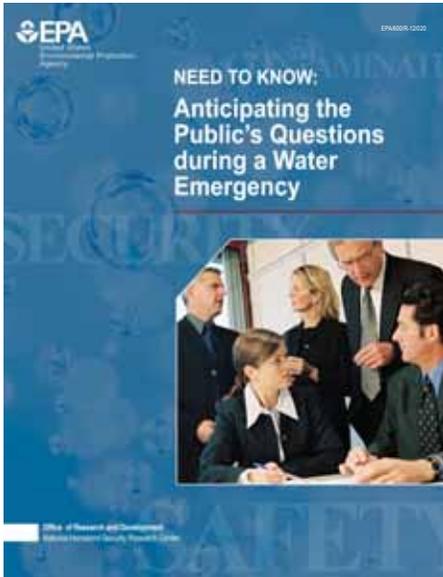


Photo by Keith Weller, courtesy of USDA



Help for communicating with the public in an emergency

A new EPA document helps water and wastewater professionals prepare for communication during and after an emergency situation. The report identifies the most important elements the public wants and needs to know and highlights some of the common challenges in managing public perception.

Get the report at http://cfpub.epa.gov/si/si_public_record_report.cfm?address=nhsrc/si/&dirEntryId=240476

EPA releases strategy to protect people's health and the environment in communities overburdened by pollution

WASHINGTON (EPA)—Last fall, EPA released Plan EJ 2014, a three-year, comprehensive plan to advance environmental-justice efforts in nine areas, including rulemaking, permitting, enforcement, and science. Plan EJ 2014 aims to protect people's health in communities overburdened by pollution, to empower communities to take action to improve their health and environment, and to establish partnerships with local, state, tribal and federal governments and organizations to promote sustainable communities where a clean environment and healthy economy can thrive.

“Far too often, and for far too long, low-income, minority and tribal communities have lived in the shadows of some of the worst pollution, holding back progress in the places where they raise their families and grow their businesses,” said Lisa F. Garcia, senior advisor to the EPA Administrator for Environmental Justice. “[The] release of Plan EJ 2014 underscores Administrator [Lisa] Jackson’s ongoing commitment to ensuring that all communities have access to clean air, water and land, and that all Americans have a voice in this environmental conversation.”

Plan EJ 2014 is EPA’s strategy to meet the mandate of Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” which states that each federal agency, with the law as its guide, should make environmental justice part of its mission.

EPA, along with its federal partners, will continue to conduct outreach, education, stakeholder forums and listening sessions as it moves forward to implement EO 12898 and Plan EJ 2014. EPA will issue annual reports documenting the progress toward meeting the commitments outlined in Plan EJ 2014. The annual reports

will be made available to the public through EPA’s website.

Plan EJ 2014:

<http://www.epa.gov/compliance/environmentaljustice/plan-ej/index.html>

More information on environmental justice: <http://epa.gov/environmentaljustice/>

Updated online water-quality standards guidance

EPA has updated the online version of its water-quality standards handbook (<http://epa.gov/wqshandbook>) to make it more user-friendly and improve transparency by providing links to EPA’s most recent policy documents. The handbook is a compilation of EPA’s guidance on the water-quality standards program and provides direction for states, territories and authorized tribes in reviewing, revising and implementing water-quality standards. Look for the “updated information” boxes located throughout each chapter for links to recent policy and guidance as well as links to documents referenced in the handbook text.

EPA has also consolidated its online water-quality standards policy and guidance reference library (<http://epa.gov/wqslibrary>),

[continued on next page](#)



Photo by Eurico Zimbres. Wikimedia CC-BY-SA 2.5

continued from previous page

which includes relevant water-quality standards policy and guidance documents. The library is sortable by document title, issue date, topic and EPA publication number.



New green infrastructure website

EPA's Office of Water has released its new Green Infrastructure website to better communicate the "what, why, and how" of green infrastructure to municipalities, developers, and the general public. Green infrastructure uses vegetation, soils and natural processes to manage water and create healthier urban environments. The website is a one-stop shop for resources on green infrastructure that features improved navigability and up-to-date content.

The site offers a wealth of publications and tools developed by EPA, state and local governments, the private sector, nonprofit organizations, and academic institutions. The site emphasizes the multiple environmental, social, and economic benefits associated with green infrastructure. The site also provides access to the latest research developed by EPA's Office of Research and Development.

Visit the site at <http://water.epa.gov/infrastructure/greeninfrastructure>

Other news and resources

New Drinking Water Advisory Communication Toolbox

A new document, developed jointly by many organizations, helps systems communicate with the public.

The toolbox complements the EPA's Public Notification Handbook and provides a protocol and practical guide for communicating with stakeholders and the public about water advisories that are based upon research and identified practices. The toolbox focuses on water systems and addresses the spectrum of situations that generate drinking water advisories (also called notices, alerts and orders).

This project was a collaborative effort among the Centers for Disease Control, EPA, American Water Works Association, Association of State and Territorial Health Officials, Association of State Drinking Water Administrators (ASDWA), and the National Environmental Health Association (NEHA).

Find the toolbox at <http://www.cdc.gov/healthywater/pdf/emergency/drinking-water-advisory-communication-toolbox.pdf>

Market research group: U.S. restaurant goes drinking more tap water instead of buying beverages

Tap water is one of the fastest-growing beverages ordered at U.S. restaurants, whereas revenue-generating beverages have been declining over the past five years, according to foodservice market research conducted by The NPD Group. Tap-water servings currently represent 8 percent of the 50 billion beverage servings ordered at restaurants, according to NPD's CREST® service, which continually tracks consumer use of restaurants.

Over the past five years, while restaurant traffic is down one percent, there has been a six percent drop in total beverage servings excluding tap water at restaurants, a decline of 2.7 billion servings, according to a recently release NPD report. Tap water servings have increased by 2.8 billion servings since 2006. The report, which includes a custom survey of 5,500 adults, finds that the decline in beverage orders at restaurants is driven by the largest categories — carbonated soft drinks and brewed

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coffee — which represent 49 percent of all beverage servings. Although iced tea, a long-established beverage, is growing, other growth categories tend to be newer drinks like smoothies, iced/frozen/slushy drinks, and specialty coffee drinks.

“Although the economy and high unemployment are factors in tap water’s upswing and beverage-servings declines, some beverages, like carbonated soft drinks, were declining prior to the recession,” says Bonnie Riggs, NPD restaurant industry analyst and author of the report. “A key learning from this report is that much of the declines in beverage servings are tied to the price/value relationship the consumer perceives.”

According to the report, free refills were among a variety of reasons consumers gave for ordering tap water instead of other beverages. One of the many reasons consumers gave for not ordering carbonated soft drinks and other non-growth beverages was the cost of these drinks.

RCAP Executive Director testifies on Capitol Hill

RCAP Executive Director Robert Stewart testified April 25 before the House of Representatives Rural Development, Research, Biotechnology, and Foreign Agriculture Subcommittee of the Agriculture Committee.

The subcommittee was hosting the first in a series of hearings on the upcoming Farm Bill reauthorization. There were two panels focusing on the programs in the Rural Development Title. Stewart testified on the second panel, along with other witnesses who work in the rural utility field. The hearing was an opportunity to look at the Rural Development programs authorized by the Farm Bill and see how they can be improved to work more effectively for communities.

For the full text of Stewart’s testimony, go to www.rcap.org/node/956



New resources library on the RCAP website

Does your water system need some guidance on starting a large project in your community? Are you in the dark about watershed protection and need some background information? Do you need a template for a rate-increase letter?

In the past few months, RCAP has created and developed an online library of resources for water systems in small, rural communities. It contains a variety of materials on many subjects and is an ideal place to start when embarking on a major initiative or when making changes or improvements to your water system. The resources are hands-on, providing practical tools, as well as informational and educational, explaining and giving guidance on practices.

The library can be searched using either keywords or filters. The filter method

allows you to find resources according to topic, creator, audience and format.

The library includes:

- RCAP’s series of new guides for small systems
- Links to other websites, such as sections on the EPA website that provide resources for small systems
- Past articles from RCAP’s electronic newsletter (the eBulletin, now called A Drop of Knowledge). Each offers advice or assistance on a specific topic.
- Practical items such as templates, checklists and how-tos.

The resources library is now a major section of the RCAP website at www.rcap.org. Find it under Publications & Resources on the main menu.

The resources library is one of several ways that RCAP provides services and informational products to communities. RCAP not only offers in-person, customized assistance and training in communities, but it also provides publications and periodicals and access to information for systems to run effectively and efficiently. ■



RCAP Executive Director Robert Stewart (second from left).



Photo by Aaron Fischbach

Nation's water infrastructure bill to top \$1 trillion

AWWA's 'Buried No Longer' report highlights cost of repair, expansion; shows impact on U.S. households

WASHINGTON (AWWA)—The cost of repairing and expanding U.S. drinking water infrastructure will top \$1 trillion in the next 25 years, an expense that likely will be met primarily through higher water bills and local fees, a study by the American Water Works Association (AWWA) shows.

The report, titled “Buried No Longer: Confronting America’s Water Infrastructure Challenge,” analyzes many factors, including timing of water main installation and life expectancy, materials used, replacement costs and shifting demographics. Nationally, the infrastructure needs are almost evenly divided between replacement and expansion requirements.

Cities will be impacted in different ways depending on their sizes and geography. Many small communities will face the greatest challenges because they have smaller populations to spread the expenses across.

“Because pipe assets last a long time, water systems that were built in the latter part of the 19th century and throughout much of the 20th century have, for the most part, never experienced the need for pipe replacement on a large scale,” the report states. “The dawn of an era in which the assets will need to be replaced puts a growing stress on communities that will continue to increase for decades to come.”

Among the key findings from the report are:

- **The needs are large:** Investment needs for buried drinking water infrastructure total more than \$1 trillion nationwide over the next 25 years (between 2011 and 2035), if pipes are replaced at the end of their useful lives. Over the coming 40-year period, through 2050, these needs exceed \$1.7 trillion. Replacement needs account for about 54 percent of the national total, with the balance (about 46 percent) attributable to population changes over that period.
- **Small, rural communities may face the biggest challenge.** Places with fewer people living far apart have more pipe “miles per customer” than large, urban systems. The study suggests that

the most impacted households could see their drinking water bills increase between \$300 and \$550 per year above current levels to address infrastructure needs.

- **Pipe-replacement expenses account for more than 84 percent of the \$278 billion need in the Northeast and Midwest regions through 2035.** Meanwhile, in the rapidly growing South and West, expansion to meet a growing population amounts to about 62 percent of the projected need of \$277 billion in that same time period. Replacement-related needs are a less important factor in these regions.

Many small communities will face the greatest challenges because they have smaller populations to spread the expenses across.

- **The required national-level investment will double from roughly \$13 billion a year today to almost \$30 billion annually by the 2040s (in 2010 dollars).** This level of investment must then be sus-

tained for many years, if current levels of water system performance and service are to be maintained.

- **Household water bills will rise:** The amount water bills rise will vary depending on past investment, community size and geographic region, but in some communities the infrastructure costs alone could triple the size of a typical family’s bill.
- **There is still time to act:** Postponing infrastructure investment in the near-term raises the overall cost and increases the likelihood of water main breaks and other infrastructure failures. However, the \$1 trillion investment necessary through 2035 does not have to be made all at once. There is time to implement asset-management plans and set rates that more closely reflect the cost of water service.

“The needs uncovered in ‘Buried No Longer’ are large, but they are not insurmountable,” said AWWA Executive Director David LaFrance. “When you consider everything that tap water delivers - public health protection, fire protection, support for the economy, the quality of life we enjoy – we owe it to future generations to confront the infrastructure challenge today.”

The report is available at www.awwa.org/infrastructure ■

What is hydraulic fracturing?

Hydraulic fracturing is a process used in nine out of 10 natural gas wells in the United States, where millions of gallons of water, sand and chemicals are pumped underground to break apart the rock and release the gas. It is also called fracking.

Scientists are worried that the chemicals used in fracking may pose a threat either underground or when waste fluids are handled and sometimes spilled on the surface. There is particular concern about fracking's effect on drinking water.

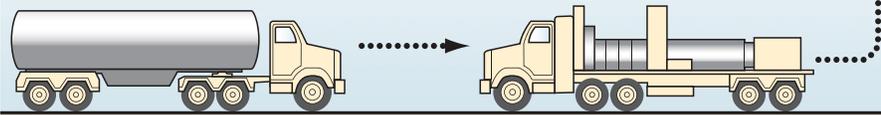
As the spotlight shines more on fracking, it only becomes more controversial. Large and powerful oil and gas companies are literally staking their ground, and the practice has attracted the attention of government at all levels from local town councils to Washington. At the federal level, at the request of Congress, the U.S. Environmental Protection Agency is conducting a study to better understand any potential impacts of hydraulic fracturing on drinking water and ground water.

For ordinary citizens and residents of small, rural areas who are getting caught up in the controversy, the issue can be confusing. To assess fracking's possible effects, you need to understand how it works. This graphic provides an explanation of the process. ■

Graphic courtesy of ProPublica

Roughly 200 tanker trucks deliver water for the fracturing process.

A pumper truck injects a mix of sand, water and chemicals into the well.



0 Feet
Water table | Well

1,000

2,000

3,000

4,000

5,000

6,000

7,000

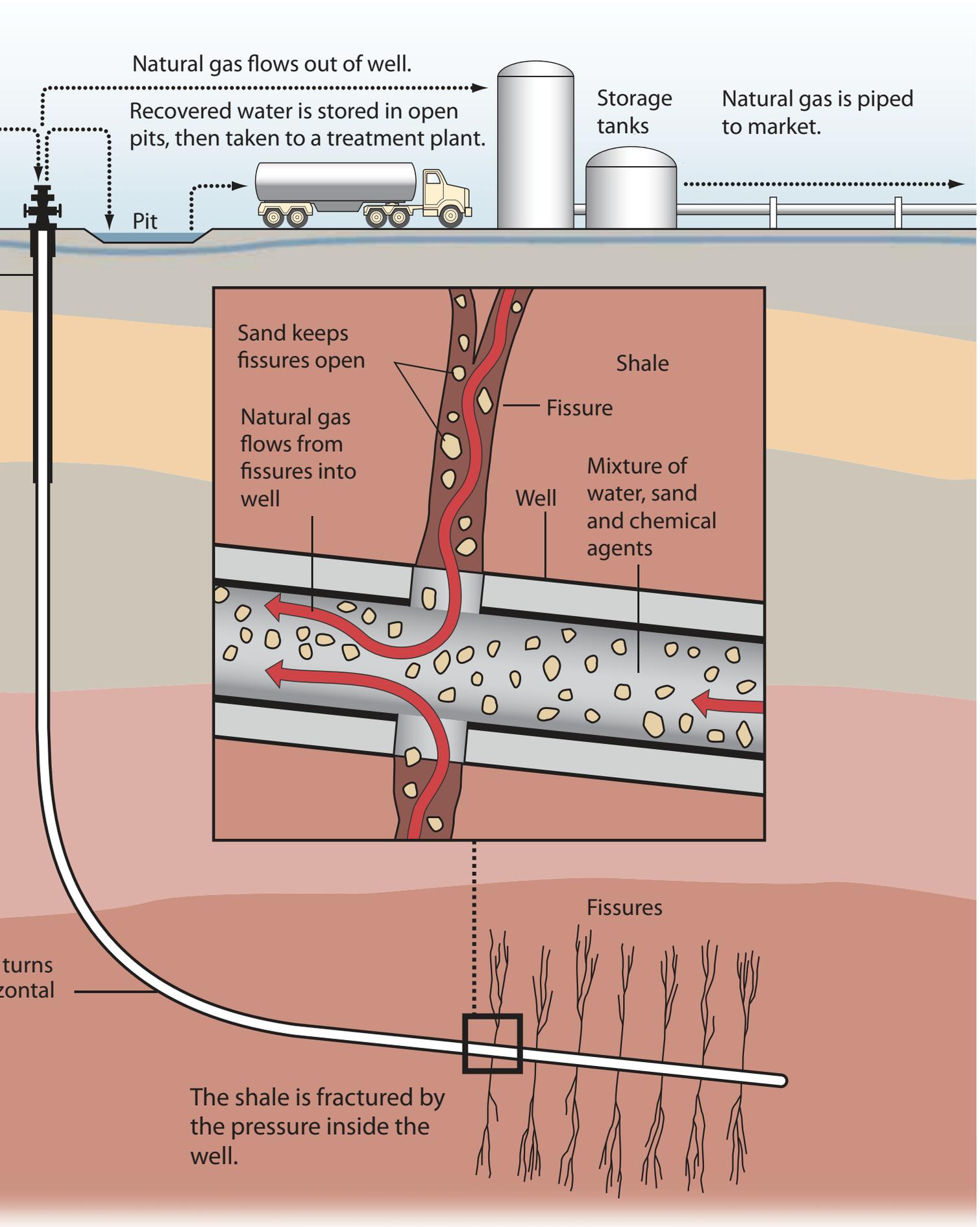
Hydraulic Fracturing

Hydraulic fracturing, or “fracking,” involves the injection of more than a million gallons of water, sand and chemicals at high pressure down and across into horizontally drilled wells as far as 10,000 feet below the surface. The pressurized mixture causes the rock layer, in this case the Marcellus Shale, to crack. These fissures are held open by the sand particles so that natural gas from the shale can flow up the well.

Marcellus Shale

We
hor

Graphic by Al Granberg



Natural gas flows out of well.

Recovered water is stored in open pits, then taken to a treatment plant.

Pit

Storage tanks

Natural gas is piped to market.

Sand keeps fissures open

Natural gas flows from fissures into well

Shale

Fissure

Well

Mixture of water, sand and chemical agents

Fissures

turns horizontal

The shale is fractured by the pressure inside the well.

Community profile

Partners in pursuit of safe drinking water in Kentucky

By Melissa Melton and Kimberly Padgett

Margaret Meade once said, “Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has.”

The City of Somerset and the South Anderson Water District in south-central Kentucky took Meade’s words to heart and made two nearly impossible infrastructure projects come to reality.

Somerset, located in the state’s 5th congressional district, provides its residents with quality, affordable drinking water. The city owns and operates its own water treatment plant and sells water wholesale to at least eight utilities within Pulaski and five other surrounding counties.

The U.S. Department of Agriculture Rural Development (RD) program estimated that with 80 percent of water sold to other utilities serving rural populations, 110,000 people would benefit from a project to expand supplying water to surrounding areas.

With the existing water treatment plant operating at 92 percent capacity, the need for expansion was urgent.

On Nov. 15, 2011, Somerset broke ground on an expansion to its water-treatment plant. It will include a 16-million gallons per day (expandable to 20 MGD) on-site, membrane-filter plant. The expansion will enable Somerset to better serve its customer base with an ample supply of safe drinking water while meeting all new and forthcoming water-quality standards. This \$26 million project received a \$14 million loan and a \$6 million grant from RD with a local contribution of approximately \$6 million.

In the neighboring 6th congressional district, the South Anderson Water District was originally formed to provide a dependable supply of potable water to the residents of southern Anderson County. Since its inception in 1967, the water district’s population has steadily grown. It now serves approximately 2,600 customers over a large portion of the entire county.





This project will basically accomplish South Anderson Water District's goal of making treated water available to every resident within its service area as it extends service to the remaining 14 unserved roads within its boundaries.

The project includes a new booster pump station and elevated storage tank to serve the southeastern portion of the system. These facilities will enhance the service in this area, which has outgrown the capacities of the original booster pump station and standpipe. The new booster pump station has also been designed to provide 300 gallons per minute of wholesale water to the North Mercer Water District through an interconnection/master meter.

This \$2.85 million project received \$1 million from RD, \$1.8 million from the Kentucky Infrastructure Authority, and \$50,000 of local funds.

RCAP's assistance was requested by both entities and by RD to ensure that all items on the Kentucky Processing Checklist were addressed for funding, implementation, and successful completion of the projects. In addition, RCAP prepared a vulnerability assessment, an emergency-response plan, and the respective certifications required by RD for the utilities to proceed with the construction bidding process for both projects.

Mayor Eddie Girdler and Chairman Eddie Stevens fully understand that a vital component of a successful project is teamwork. With earnest appreciation at each groundbreaking ceremony, they publicly thanked Rep. Hal Rogers (R-5th District), Rep. Ben Chandler (D-6th District), USDA Rural Development, and RCAP for working together with the project's leaders and engineers. This has been a group of dedicated partners who are bringing about positive change in their state. ■

Melton and Padgett both work for the Rural Community Assistance Program of Community Action Kentucky.

RCAP staffer teaches about drinking water treatment on video; Somerset featured



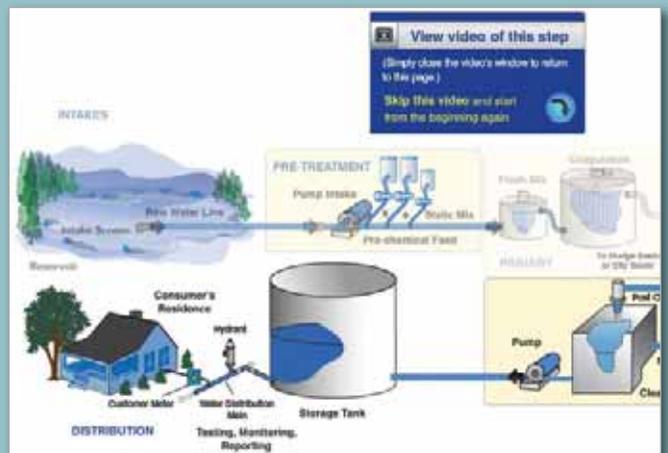
The City of Somerset's drinking water plant was used in a national RCAP project that produced a web-based, interactive explanation of how drinking water is produced.

Melissa Melton, a Technical Assistance Provider for the Rural Community Assistance Program of Community Action Kentucky, has been working with Somerset on its infrastructure project (see main article at left).

As someone familiar with these communities, Melton also hosts a series of short videos that are part of the tool to educate non-technical audiences on how raw water becomes clean, safe drinking water for communities. The Somerset plant is the scene for many of the explanations of the steps in the treatment process.

The tool is available at www.rcap.org/dwwwtreatment. A companion section for wastewater treatment is also at that site. Both tools provide animated diagrams showing the steps of the water-treatment processes and pop-up videos in the diagram that offer further explanations of the individual steps.

Both tools are ideal for members of boards or councils that govern water systems in small communities or other community leaders. The tools are designed to give these lay audiences a better understanding of the knowledge and resources – skilled workers, facilities, natural resources – that go into treating water so decision-makers can make more informed decisions on the operation and management of their water systems. ■





EDITOR'S NOTE:

This article is the second in a series of articles on "Five things you can do to improve your utility." The author of this article provided five action items and an additional one for a complete package of ways to make general improvements. The first article, "Five things you can do to save on energy in your utility" (Rural Matters 2012 issue 1, page 13), is available at www.rcap.org/energyinutilities

things you can do to improve your utility

By Robert E. Morency, Ph.D.

Here are the first six steps that any small, rural utility – wastewater, drinking water, solid-waste management, etc. – should consider taking to improve its services. These linked steps can help with the general operations and management of the utility. The order in which they are listed is significant, although there might be some overlap in many cases.

1 Get the opinion of your state primacy agency.

Primacy agencies are the designated regulatory authority in each state and are charged with developing rules and regulations for the public's health as well as for the safety-related functions of a utility. Primacy agency staff conduct periodic inspections and pass along to the utility the results and their suggestions on what the system needs to do to come up to modern-day standards.

Because the standards are continually evolving and changing, due mostly to actions taken by the primacy agency, representatives of the agency are the first source for advice on what your system needs to do to be in compliance (i.e., a modern utility, meeting the current standards, and capable of sustaining itself into the future).

While imposing and enforcing rules and regulations on utilities can be viewed as something adversarial, consider primacy agency staff your friends. They have the utility's – and the public's – best interest at heart. These govern-

mental structures are an important way that our country has chosen to use to attain certain standards for utilities and to protect the health of its citizens.

2 Get technical assistance.

Your state's primacy agency can point you in the direction of free or low-cost assistance. Technical assistance providers, such as the staff of the nationwide RCAP network, work in coordination with the primacy agencies as a way of helping to reduce the cases of non-compliance, thus working to protect the public's health. So technical experts are a second piece of the puzzle that fits with the first piece – primacy agencies.

In many cases, technical assistance may solve the problem at hand and will point you in the direction of deeper and more permanent technical, managerial and financial solutions to the problems of running a small, public utility.

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Photo by Michael Mancino, courtesy of FEMA

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3 Form a committee or strengthen an existing one.

If a single individual is operating your utility, you are running a great risk of being overwhelmed by new regulations. Besides, it's just not a good business practice – and you should consider your utility a business – to have only a single person with all of the knowledge and skills to run the system.

Despite jokes about the products of committees, it is almost universally recognized that the more points of view that can bear down on a problem, the more likely that the best solution will be found. While many communities rely on a board or the town council to oversee the water system, the 1996 Amendments to the Safe Drinking Water Act introduced a new level of complexity to managing the affairs of a system. Appointing an advisory committee, made up of three to five interested citizens and working with a technical assistance provider, has proven to be an effective means of becoming informed about the issues facing utilities, and even rescuing troubled systems from the brink.

There are many instances of community leaders beginning a career of public service after serving on such a committee. A committee's work can have a significant, positive impact on the quality of life in the community.

4 Contract with professionals.

Free or low-cost technical assistance can take you only so far. Part of a technical assistance provider's job is to let you know at what point you should seek and be prepared to pay for a professional – an engineer, hydrogeologist, lawyer, accountant, etc.

Initially, the fees for professional services will have to come from the utility's operating budget. As a project proceeds, however, professional services can be rolled into the project's cost and will then either be at no cost (if the funding is through a grant) or become part of the utility's debt-service payments.

By attempting to do too much without competent professional help, you will certainly spend more over the long term.

5 Identify and prioritize areas of need.

Working with a technical assistance provider and a professional engineer, for example, the committee should take a hard look at the present state of the system's infrastructure. Customer complaints may point you in the direction of which problem to address first. The results of a sanitary survey or a persistent compliance problem are also points to be aware of in the assessment. An attitude survey taken of your customers may give you an idea of the extent of a problem.

Planning for future compliance may point out what outlays will need to be made to meet new regulations. For example, maximum contaminant levels of uranium and arsenic were set at lower levels, and many systems fell out of compliance and were required to build new facilities. Getting technical assistance can help you become aware of any new regulations that may be coming out so that you can make plans as soon as possible to remain in compliance.

6 Explore funding options.

In any given state, there are usually very few choices for funding work on a utility. Among them are:

- community development block grants (CDBG)
- the U.S. Department of Agriculture Rural Utility Services Water and Waste Loan and Grant Program
- state revolving loan funds (SRF)
- bond banks
- private lenders (i.e., banks).

Your situation may make you eligible for one or more of these options. Eligibility is dependent on such factors as:

- the income level of the users
- the rates being charged
- the utility's level of indebtedness
- the amount of money being sought
- the nature of the project.

It is worth taking the time to consult with the agencies providing funding in order to find creative ways of "leveraging" funds. For instance, using loans as matching funds to improve grant eligibility, or providing self-funding where it might do the most benefit in terms of eligibility (i.e., self-payment for the installation of water meters). Funding agencies are more than willing to work with systems to assist with application requirements and to provide specific information on what the terms of a loan are (payback schedules, reporting requirements, administrative matters, etc.).

Summary

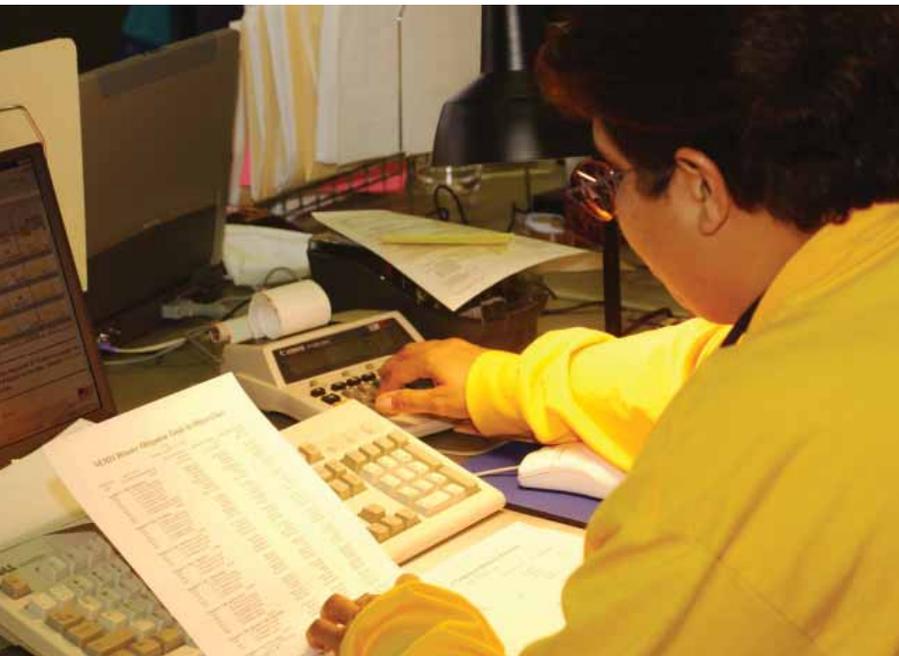
These six steps can be thought of as belonging to three stages:

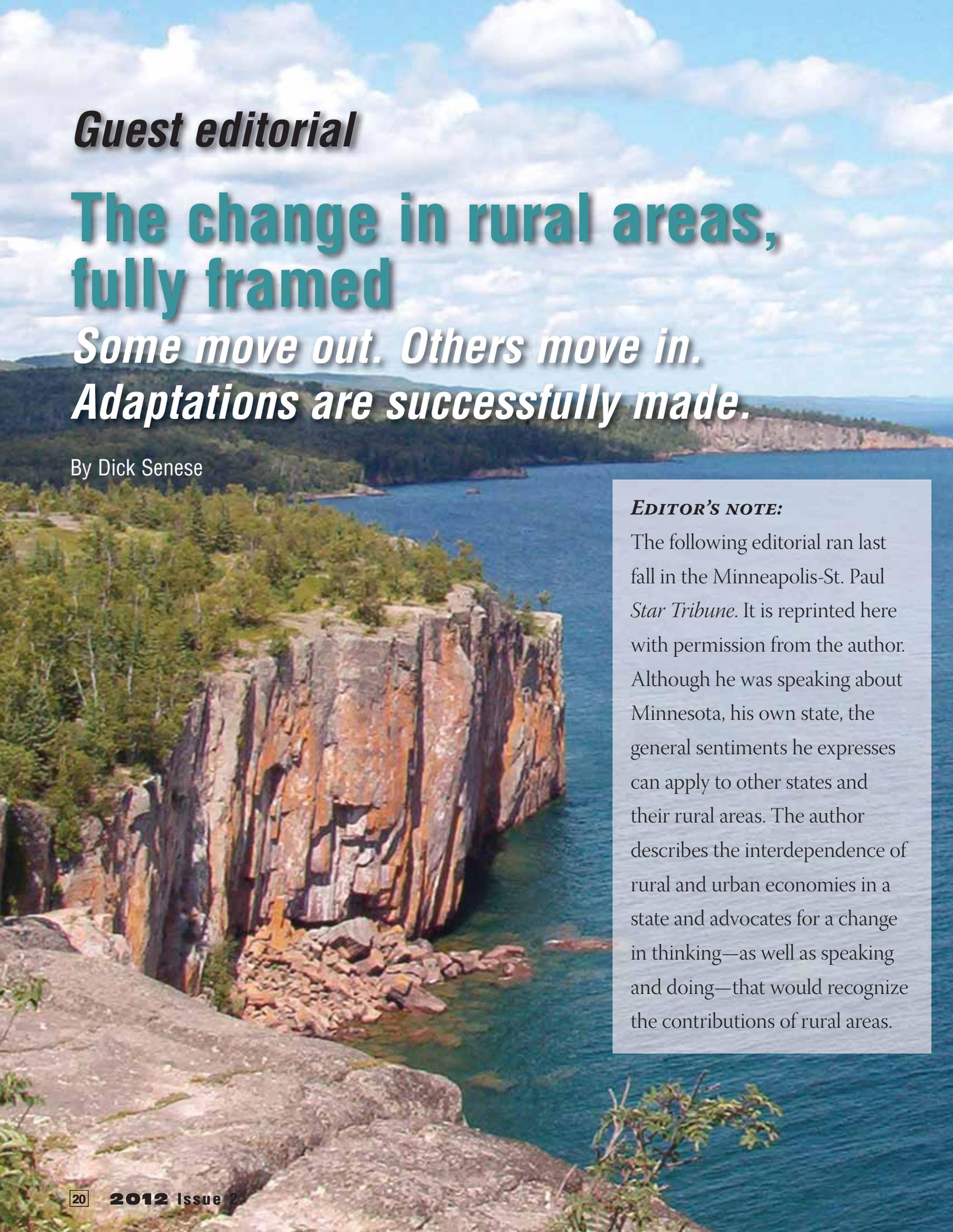
1. **Information gathering:** Asking your primacy agency for its opinion and getting technical assistance
2. **Taking action to synthesize the information:** forming a committee and contracting with professionals
3. **Informed decision-making:** Identifying and prioritizing needs and exploring funding options

Once the decisions have been made, and a project or a strategy has been identified, there is much challenging work to be done. However, if you have been wise to get help and advice, you will be in a decision-making role, and will have the guidance of regulators, technical assistance providers, and consultants, all of which will make the job easier. In fact, there are many examples of communities who have been strengthened by such an undertaking. We wish you luck! ■

Morency is a Water Resources Specialist for RCAP Solutions, the Northeast RCAP. He is also a certified geologist in Maine and New Hampshire

Photo by Larry Lerner, courtesy of FEMA





Guest editorial

The change in rural areas, fully framed

***Some move out. Others move in.
Adaptations are successfully made.***

By Dick Senese

EDITOR'S NOTE:

The following editorial ran last fall in the Minneapolis-St. Paul *Star Tribune*. It is reprinted here with permission from the author. Although he was speaking about Minnesota, his own state, the general sentiments he expresses can apply to other states and their rural areas. The author describes the interdependence of rural and urban economies in a state and advocates for a change in thinking—as well as speaking and doing—that would recognize the contributions of rural areas.

Another constitutionally required decennial census has been conducted, and we will begin to hear lamentations about rural population decline, aging population and young people leaving rural areas.

The fundamental shifts contributing to these trends affect all of Minnesota, requiring residents and community leaders to rethink the future. Framing rural changes only as decline, however, leads to a false narrative that misses the nuance and vitality of rural communities and contributes to an already divisive civic dialogue.

Brain gain

Yes, young people move from rural areas in search of opportunity. Reading the standard narrative, though, creates the impression that people move in only one direction. People do, however, move into rural communities.

Researchers at the University of Minnesota Extension's Center for Community Vitality found that 91 percent of Minnesota's 67 rural counties experienced a gain in residents aged 30 to 44 from 1990 to 2000, and 97 percent of these counties saw an increase in children aged 10 to 14.

These newcomers bring children. Fifty-seven percent of newcomers had not lived in the area previously. The rest are "coming home." Analysis of 2010 census data shows these trends continuing, though slowed.

Newcomers also bring an entrepreneurial spirit and educational attainment. In one five-county area of the state, almost 25 percent of newcomers operate businesses, introducing nearly \$4 million into the economy. Other studies show that more than 68 percent of newcomers hold bachelor's degrees or higher.

People are moving their lives and families to rural communities, contributing to the vitality and health of these communities, schools and our entire state.

Economic interdependence

Urban areas are portrayed as only economic benefactors, and not beneficiaries, of rural areas. Recently, faculty from the University of Minnesota's Department of Applied Economics examined the benefit flowing from the rural economy to the urban economy. This research showed inextricable links between urban and rural economies.

In a nutshell, manufacturing brings roughly \$31.5 billion to Minnesota's economy, and 47 percent of that activity occurs in rural Minnesota.

If there were a shift, up or down, of \$1 billion in manufacturing revenue in rural Minnesota, urban areas would experience a gain or loss of \$200 million in economic activity and more than 1,000 urban jobs. Similar linkages exist in other sectors.

In short, all of Minnesota does better when all of Minnesota does better.

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Minnesotans in 30s and 40s moving to rural areas

MINNEAPOLIS/ST. PAUL (U of M Extension)—Rural Minnesota continued to attract new residents aged 30 to 49 between 2000 and 2010, according to a new study of U.S. Census data from University of Minnesota Extension.

The news that people are moving into rural areas may seem counterintuitive, especially when headlines and book titles proclaim a "brain drain" and the supposed demise of rural America when 18- to 25-year-olds leave. But, according to Ben Winchester, University of Minnesota Extension rural sociologist and author of the study, the rural in-migration of 30- to 49-year-olds who bring with them educational achievements and established earning power creates a "brain gain" for these rural areas.

"It's the rule that young people move to pursue educational and career goals, not the exception," said Winchester. "Instead of labeling that loss as 'doom and gloom' for rural, I've examined the population trends more deeply. Acknowledging the brain gain allows rural places to focus on their strengths and opportunities, which is the work of any community striving for a brighter future."

In the new report, "Continuing the Trend: The Brain Gain of the Newcomers," Winchester updates Minnesota's population shifts as captured by the 2010 Census and provides an examination of the trend at the national level.

The study shows that a brain gain has continued in the 30 to 49 age group across the rural Midwest, but at a slower pace than was found from 1990 to 2000. External forces such as housing debt and the Great Recession slowed overall migration rates, according to Winchester.

Recent University of Minnesota Extension research on 30- to 49-year-olds shows they are choosing rural areas for a higher quality of life, specifically citing a slower pace, the low cost of housing, and safety and security. A study of 99 newcomer households in west central Minnesota showed that the average newcomer household contributed \$92,000 in economic activity to the region in 2009 and 2010.

"In rural areas, little changes make a big difference," Winchester said. "And these numbers certainly change the story."

To access the study (PDF), visit www.extension.umn.edu/go/1107



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Local leadership and action

Rural areas and leaders are finding winning solutions for their future at the local level rather than waiting for the future to happen to them. For this, local leadership and civic action matters — a whole lot.

- In northwest Minnesota, one city council created senior housing and made it available to newcomers. It also facilitated the sale of a hardware store to a new resident.
- A community that was having trouble filling nursing assistant positions revamped its English-language community education program, teaching both language and job skills that guaranteed employees and employment to new residents.
- In another Minnesota community, leaders didn't settle for the availability of broadband. They brought in workshops to help business owners use it. As a result, one local artisan began

advertising online and ultimately hired a new employee to keep up with demand. Similarly, bookings at a resort went up 25 percent after it started advertising on Twitter.

Communities are improving their visual image to attract visitors and residents; they are helping immigrants create minority-owned businesses; they are working with nearby communities to create a more robust regional economy.

There are countless examples of rural communities creating their own future. Anyone who cares about their community ought to be inspired by their leadership.

One Minnesota

Minnesota is a tightly woven fabric of economies, people and landscapes. Yes, rural Minnesota's population is aging; fewer people live there; young adults leave. In this, rural communities are similar to some urban areas and neighborhoods.

By better understanding the complexity of trends, we can avoid simplistic and polarizing frameworks about any area of Minnesota and encourage local leaders. Our state's future depends on thoughtful reflection on the vital connections that bind us and actions that strengthen those connections. ■

Senese is associate dean for community vitality and public engagement at University of Minnesota Extension.

Organic grower Craig Murphy windrows wheat on his farm near Morris, Minnesota. Photo by Bruce Fritz, courtesy of USDA





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