

RURAL matters



2010
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The magazine of the Rural Community Assistance Partnership

Protecting water in rural communities

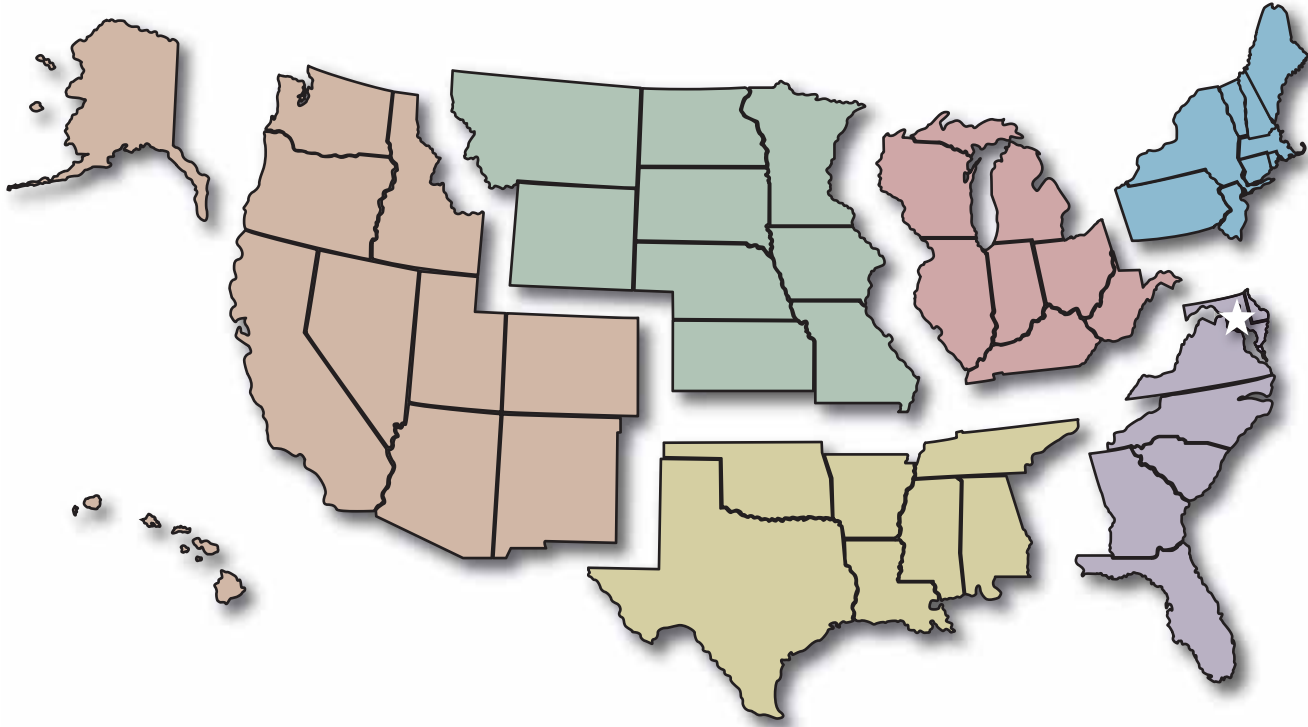
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Making a difference,
community and individual profiles

Mapping Ground Water Rule
requirements - Part II



Rural Community Assistance Partnership: A network of six regions and a national office



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features



Photo by Catherine Murphy

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Improving the quality of life in rural communities

RURAL matters

The magazine of the Rural Community Assistance Partnership

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2010 Issue 4



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Director's Letter



Robert Stewart
RCAP Executive Director

Living most of my life in an arid environment and where water resources were constrained, the preservation and conservation of crucial supplies of drinking water have never strayed far from my consciousness. This summer has seen record high temperatures in the Northeast and mid-Atlantic regions, by far the hottest summer in the five years I've lived in Washington, D.C. Although water supplies are more readily available in these areas compared to other parts of the U.S., water utilities can face significant challenges to provide for all the demands during the hot summer months.

EPA's "WaterSense" and "We're for Water" campaigns, described in this issue, are an attempt to promote more water-efficient products and services and to encourage better use of water. However, these are only one way to address this growing national problem from the customers' perspective. An equal amount of attention must be placed on activities or programs in which water utilities can better manage and conserve water. As I mentioned in the last issue, many small utilities, especially those constructed years ago, suffer from high levels of water loss. Savings garnered from changes in water fixtures or customers' behaviors can be more than matched by losses occurring before the water even reaches the tap. RCAP's technical assistance providers can assist small utilities in conducting water audits and implementing leak detection programs. Considerable savings can result from eliminating just one or two leaks or unauthorized diversions, allowing a utility to control costs and provide better service to all of its customers.

There is a wonderful story in this issue from the Wilmington, Del., News Journal on the efforts of a very dedicated rural community leader, Harold Truxon. A member of the Southeast RCAP board of directors for the past eight years, Mr. Truxon has been a tireless advocate his entire life for improving living conditions in his small (fewer than 400 residents) town of Ellendale. Protecting public health and ensuring that all residents have safe and affordable water and wastewater services have been a passion for Mr. Truxon. All of us at RCAP are proud of his service to his community and of his contributions to the Southeast RCAP.

I hope that many of our readers from Ohio were able to attend the recently concluded "Small Towns, BIG Futures" conference that was presented in August by the Ohio RCAP (part of our Great Lakes RCAP operated by WSOS Community Action Commission). This outstanding conference presented numerous educational and information-exchange sessions in various tracks, including infrastructure, economic development, management, leadership and legislative affairs. One of the state's senators, Sherrod Brown, addressed the means to improve rural economies in his the keynote speech, and Judy Canales, Administrator for Business and Cooperative Programs, USDA-Rural Development, discussed various activities that her agency is engaged in to assist rural communities with development needs. While there were many other excellent presentations, I have to acknowledge the thought-provoking (and amusing) address given by Dr. Ned Hill of Cleveland State University on the fundamentals of economic development. (Copies of the presentations are available at www.rcap.org/ohconference) All of the attendees took advantage of not only the excellent educational sessions but also the opportunity to share experiences with other community leaders around Ohio. Congratulations to all of the WSOS and Ohio RCAP staff for presenting this ground-breaking rural community development conference! ■

rural developments



News and resources from the Environmental Protection Agency



EPA WaterSense

Consumers save money, water with EPA's WaterSense Program

Showerheads added to the WaterSense product list

In 2009, EPA's WaterSense program helped consumers save more than 36 billion gallons of water and \$267 million on their water and sewer bills. That's nearly four times as much water as consumers saved with WaterSense labeled toilets, faucets, and faucet accessories in 2008.

"By raising awareness about the value of smart water use, the WaterSense program encourages consumers to take environmental action into their own hands," said Peter S. Silva, assistant administrator for EPA's Office of Water. "WaterSense-labeled products provide Americans another opportunity to keep the country moving towards a green economy."

EPA created WaterSense in 2006 as a voluntary program to label products that are at least 20 percent more water-efficient and perform as well as or better than standard models. WaterSense labels toilets, bathroom faucets and faucet accessories,

flushing urinals, new homes, and, most recently, residential showerheads. WaterSense also certifies programs for irrigation professionals.

With about 17 percent of all residential indoor water use in the United States going to showering, replacing a water-hogging showerhead with a WaterSense labeled model can save enough water each year to wash more than two months' worth of laundry. Like all WaterSense-labeled products, showerheads must be independently tested and certified to meet EPA's efficiency and performance criteria before they can earn the label.

With the addition of showerheads, consumers can now renovate their bathrooms with a full suite of WaterSense-labeled products. A bathroom remodel that includes a WaterSense-labeled toilet, faucet, and showerhead will not only conserve water, but also save enough electricity each year to run a refrigerator for two months and save about \$60 in utility bills.

WaterSense, a partnership program sponsored by EPA, seeks to protect the future of our nation's water supply by offering people a simple way to use less water with water-efficient products, new homes and services.

More information on WaterSense labeled showerheads: www.epa.gov/watersense/products/showerheads.html

To view the WaterSense accomplishments report: www.epa.gov/watersense/about_us/program_accomplishments.html

EPA launches national water conservation campaign

WASHINGTON (EPA) – The EPA's WaterSense program kicked off its national "We're for Water" campaign in July to encourage Americans to make simple choices that save water. The program, in collaboration with its partner, American Water, is spreading the word about saving water by traveling cross-country, stopping at national landmarks and educating consumers about WaterSense-labeled products. WaterSense products use about 20 percent less water than standard models.

"Whether by replacing an old, inefficient plumbing fixture with a WaterSense-labeled product or adopting more water-efficient behaviors, together we can help save water for future generations," said Peter Silva, assistant administrator for EPA's Office of Water. "WaterSense offers consumers simple tips that can help the environment and keep money in their pockets."



Consumers can start saving water today with three simple steps: check, twist and replace.

- Check toilets for silent leaks by putting a few drops of food coloring in the tank; if the color shows up in the bowl indicating a leak, fixing it may be as simple as replacing the toilet's flapper.
- Twist on a WaterSense-labeled bathroom faucet aerator to use 30 percent less water without a noticeable difference in flow.
- Replace a showerhead with a WaterSense-labeled model that uses less water and energy, but still has all the power of a water-hogging model.

More information on the We're for Water road trip:

www.epa.gov/watersense/wereforwater

Take the "I'm for Water pledge":

www.epa.gov/watersense/pledge

Learn about water-saving tips:

www.facebook.com/EPAWatersense



EPA adds more than 6,300 chemicals and 3,800 chemical facilities to public database

Unprecedented access provided for the first time

WASHINGTON (EPA) – As part of Administrator Lisa P. Jackson's commitment to increase public access to information on chemicals, the EPA has added more than 6,300 chemicals and 3,800 chemical facilities regulated under the Toxic Substances Control Act (TSCA) to a public database called Envirofacts.

"The addition to Envirofacts will provide the American people with unprecedented access to information about chemicals that

are manufactured in their communities," said Steve Owens, assistant administrator for EPA's Office of Chemical Safety and Pollution Prevention. "This is another step EPA is taking to empower the public with information on chemicals in their communities."

The Envirofacts database is EPA's single point of access on the Internet for information about environmental activities that may affect air, water and land in the US and provides tools for analyzing the data. It includes facility name and address information, aerial image of the facility and surrounding area, map location of the facility, and links to other EPA information on the facility, such as EPA's inspection and compliance reports that are available through the Enforcement Compliance History Online (ECHO) database. EPA is also adding historic facility information for another 2,500 facilities.

EPA has conducted a series of aggressive efforts to increase the public's access to chemical information including reducing confidentiality claims by industry and making the public portion of the TSCA inventory available free of charge on the agency's website. EPA intends to take additional actions in the months ahead to further increase the amount of information available to the public.

More information on Envirofacts:

www.epa.gov/enviro/facts/tsc/index.html

More information about EPA's efforts on increasing transparency on chemical information:

www.epa.gov/oppt/existingchemicals/pubs/enhanchems.html

EPA to initiate rulemaking to reduce harmful effects of sanitary sewer overflows

The EPA is initiating rulemaking to better protect the environment and public health from the harmful effects of sanitary



sewer overflows (SSOs) and basement backups. In many cities, SSOs and basement backups occur because of blockages, broken pipes and excessive water flowing into the pipes. SSOs present environmental and health threats because they discharge untreated wastewater that contains bacteria, viruses, suspended solids, toxics, trash, and other pollutants into waterways. These overflows may also contribute to beach closures, shellfish bed closures, contamination of drinking water supplies, and other environmental and health concerns.

Infrastructure issues were discussed at the Coming Together for Clean Water Conference held by EPA Administrator Lisa P. Jackson on April 15, 2010. The agency plans to address these issues as part of its efforts to protect public health and revitalize local waterways.

EPA is considering two possible modifications to existing regulations: (1) establishing standard National Pollutant Discharge Elimination System (NPDES) permit conditions for publicly owned treatment works (POTWs) permits that specifically address sanitary sewer collection systems and SSOs; and (2) clarifying the regulatory framework for applying NPDES permit conditions to municipal satellite collection systems. Municipal satellite collection systems are sanitary sewers owned or operated by a municipality that conveys wastewater to a POTW operated by a different municipality. As a part of this effort, the agency is also considering how to address long-standing questions about peak wet weather flows at municipal

continued on next page

wastewater treatment plants to allow for a holistic, integrated approach to reducing SSOs while simultaneously addressing peak flows at POTWs.

To help the agency make decisions on this proposed rulemaking, EPA held public listening sessions, and the public was invited to submit written comments.

More information on sanitary sewer overflows, the potential rule and a schedule of the upcoming listening sessions: http://cfpub.epa.gov/npdes/home.cfm?program_id=4



EPA proposes requiring the use of sufficiently sensitive test methods for NPDES permit applications and reporting

The EPA is proposing minor amendments to its Clean Water Act (CWA) regulations to codify that under the National Pollutant Discharge Elimination System (NPDES) program, only “sufficiently sensitive” analytical test methods, i.e., those that are capable of detecting and measuring the pollutants at, or below, the respective water quality criteria or permit limits can be used when completing an NPDES permit application and when performing sampling and analysis pursuant to monitoring requirements in an NPDES permit.

This proposal is based on requirements in the CWA and existing EPA regulations. It also would codify existing EPA guidance on the use of “sufficiently sensitive” analytical methods with respect to measurement of mercury and extend the approach outlined in that guidance to the NPDES program

more generally. Specifically, EPA is proposing to clarify the existing NPDES application, compliance monitoring, and analytical methods regulations. The amendments in this proposed rulemaking affect only chemical-specific methods; they do not apply to the Whole Effluent Toxicity methods or their use.

EPA and state permitting authorities use data from the permit application to determine whether pollutants are present in an applicant’s discharge and to quantify the levels of all detected pollutants. The pollutant data enables the director of the permitting authority to make a sound reasonable potential determination and, if necessary, establish appropriate permit limits. It is critical, therefore, that applicants provide data that are measured with a precision and accuracy that will be meaningful to the decision making process. The same holds true for monitoring and reporting relative to permit limits established for regulated parameters.

More information:
<http://cfpub.epa.gov/npdes> ■



A call for a 'local water movement' and a new way of thinking about water

Dr. Peter Gleick, president of the Pacific Institute, believes that it’s time to harvest the momentum of the local sustainability movement to promote “local water.”

In an article published July 14 on the Huffington Post website, Gleick outlines his philosophy, posing that by following in the footsteps of the food production and distribution movement, America’s towns and cities would have a more efficient relationship with local water resources.

“‘Local water’ should mean something similar [to the local food movement]: stressing reliance on local water sources, management, treatment, and control,” Dr. Gleick suggested.

The local food movement encourages consumption of products produced within a 100 mile radius, but “local” would have a different, more flexible meaning in the water sector. Major cities can no longer provide their own water resources, and are thus purging water from rural lands.

For his local water movement, Gleick acknowledges that a variety of solutions would be needed at both the urban and rural level: “For example...Las Vegas would look inward at the way water is used now and figure out how to use it more effectively, rather than looking outward to take the water from rural counties and ranching communities to pipe to meet their needs, as they are always trying to do.”

The local water movement would promote many of RCAP’s goals, such as preferring local, publicly managed water systems, creating ecologically sustainable water systems, and the decreased consumption of bottled water.

Although the road to a local water movement would be a complicated one, the extensive list of potential benefits, such as the ideals that align with RCAP’s missions as stated above, provide compelling evidence to its long term benefits.

To read Gleick’s article, visit www.huffingtonpost.com/peter-h-gleick/call-for-a-local-water-mo_b_645358.html





Former RCAP employee Bill Leonard receives highest honor from AWWA



Photo courtesy of Midwest Assistance Partnership

The Montana Section of the American Water Works Association (MSAWWA) and the Montana Water Environment Association (MWEA) recognized Bill Leonard, a former employee of Midwest Assistance Partnership, the Midwest RCAP (MAP), with an award in early May. At the MSAWWA/MWEA 2010 Annual Joint Conference, Leonard was presented with their highest honor - the Lifetime Achievement Award.

The award goes to retired or semi-retired professionals who have demonstrated long-term dedication and made significant contributions to Montana's water and/or wastewater industries. MSAWWA/MWEA recognizes Leonard's significant contribution in the protection of public health and the environment. He worked throughout his career to assist and train those responsible for providing clean, safe drinking water to the people of Montana.

Leonard worked for MAP as a Resource Development Advisor from 1988 until 2007 in Whitefish, Mont. He is now retired and continues to reside in Montana. ■

United Water's service failures indicative of problems under privatized utilities



WASHINGTON (F&WW) – Billing problems, poor system maintenance, repair delays, workforce reductions and other cost-cutting measures are just some of the many problems plaguing United Water, reveals a new report released June 4 by the national consumer advocacy group Food & Water Watch. Titled *United Water: Suez Environnement's Poor Record in the United States*, the report details how this subsidiary of the French corporation Suez Environnement compromises consumer and environmental safety at the expense of profits.

“The many problems experienced by communities that have suffered under United Water's so-called ‘service’ illustrate why the movement to stop the privatization of water is gaining momentum,” said Wenonah Hauter, executive director of Food & Water Watch. “While private water companies such as United Water often promise to improve the quality of aging, underfunded water systems, most communities find that their water service actually deteriorates under private control.”

By taking over smaller municipal water systems, United Water has grown into the second-largest private provider of drinking and wastewater services in the U.S. As of 2009, the company served 7.2 million customers in 26 states.


Yet expansion has come at a cost. Several municipalities, such as Atlanta, Ga.; Milwaukee, Wis.; Gary, Ind.; and Gloucester, Mass., ended contracts with the company after suffering from maintenance backlogs, sewage spills, contaminated drinking water, workforce reductions and infrastructure problems.

Privatized water systems often end up costing municipalities extra money in the form of fines for water quality violations and water loss, among other problems. Gary, Ind., which terminated its contract with United Water earlier this year, expects to save \$8 million a year under public operation of its water system.

Ratepayers have also suffered financially under United Water's service. North Brunswick, N.J., cancelled its water contract with United Water in 2002, after customers saw their bills increase by 100 to 200 percent.

“Reliable public operation of water systems is the best way to ensure the integrity of these essential services. With many communities lacking funds to upgrade and maintain their water systems, the federal government should implement a dedicated source of funding so that all Americans can have access to safe, reliable, affordable drinking and wastewater services,” said Hauter.

United Water: Suez Environnement's Poor Record in the United States is available at www.foodandwaterwatch.org/water/report/united-water ■



Efforts under way to address deterioration of nation's water pipes

BLACKSBURG, Va. (VT) – More than 2 million miles of the nation's infrastructure of water and wastewater pipes are nearing the end of their useful life, but the mostly underground facilities often do not attract much attention because of this “invisibility,” said Sunil Sinha, Virginia Tech associate professor of civil and environmental engineering.

To help remedy this growing national concern, Sinha will be directing two new research projects to develop a National Pipeline Infrastructure Database. Information will be gathered on technologies to assess the condition as well as the location of the buried pipes, and on methods of how to repair, rehabilitate or replace them entirely. Sinha is conducting this research through the Virginia Tech Institute for Critical Technology and Applied Science Center of Excellence in Sustainable Water Infrastructure Management.

Sinha explained there are a vast number of different types of water and waste water pipes, and different technologies will be required to correct any problems.

“The proposed databases will be like a Wikipedia for the water and waste water utilities, except users will not have editing privileges,” Sinha said. Instead, this

database will be maintained and updated by Sustainable Water Infrastructure Management. It will provide case studies, lists of vendors, consultants, and contractors on a regional basis that deal in a particular technology, and comments from end users about individual experiences with a particular technology.

“Presently, utility managers and decision makers are struggling with easy access to the comprehensive information about the technologies and experiences of other utilities in dealing with the different situations,” said Sinha, a National Science Foundation Career Award recipient in the area of sustainable water infrastructure management systems. “The proposed database will ensure a single-point information center for the utilities where they can find all the relevant information that will help in expediting the decision-making process for the selection of appropriate condition-

assessment and rehabilitation technologies.”

“Today, municipal governments are facing an infrastructure crisis requiring costly renewal beyond their capacity,” Sinha said. With the nation's strained resources, utility managers need to make quick, informed decisions for implementing technologies that are proven to be effective and cost-effective.

According to the Environmental Protection Agency (EPA), U.S. water and wastewater infrastructure includes an estimated 16,000 wastewater and 52,000 drinking water utilities. System rehabilitation could “require a whopping investment of \$390 billion and \$274 billion respectively,” Sinha said.

In addition, the utility engineers responsible for fixing the pipeline infrastructure are governed by various laws such as the Safe Drinking Water Act of 1974, the Clean Water Act of 1977, the Water Quality Act of 1987, American Society for Testing and Materials Standards, and other manuals, utility specifications, and trade association guidelines.

The Water Environmental Research Foundation awarded two grants, valued at about half a million dollars, to Sinha through the EPA's Aging Water Infrastructure Research Program, a research agenda that supports efforts to put the nation's aging infrastructure on a pathway toward sustainability. The development of this research program stems from EPA's Sustainable Water Infrastructure Initiative.

Sinha co-directs Sustainable Water Infrastructure Management with Marc Edwards, who holds Civil and Environmental Engineering's Charles P. Lunsford Professorship, a National Science Foundation Presidential Faculty Fellowship, and a MacArthur Fellow award.

Sinha helped spearhead the PBS documentary “Liquid Assets: The Story of Our Water Infrastructure,” which recently aired on PBS affiliates across the country. ■

RCAP staff member profile:



Jay Mashburn

Rural Development Specialist with Rural Community Assistance Corporation

By Alexa Byrne

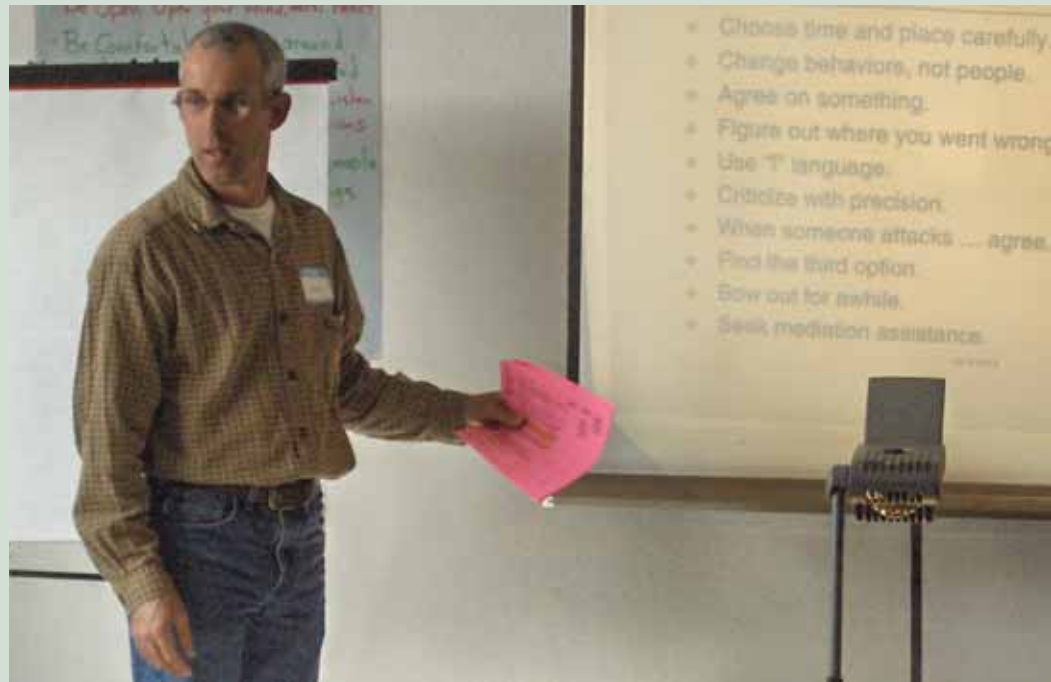
Area of work:
Utah, Colorado, Arizona,
and New Mexico

Early in his career, Jay Mashburn was a Peace Corps volunteer in Nepal. After returning to the United States, he looked for a career in which he could use his master's degree in cross-cultural communications. With a job as a Technical Assistance Provider (TAP) to Native American tribes in Utah with Rural Community Assistance Corporation (RCAC), the Western RCAP, Mashburn found the perfect opportunity to use his skill set to reach out to struggling cultures in the U.S..

To help communities such as the Ute Indian Tribe and the Confederated Tribes of the Goshute Reservation, Mashburn has to assume the role of a "good-decision cheerleader." Before he can help these groups gain access to water resources, he conducts a basic leadership development course to help the tribes' members raise up solid decision-makers.

Due to the remote locations of these tribes, Mashburn has identified both economic depression and isolation as barriers that prevent these communities from achieving a suitable standard of living.

Unlike many other communities the RCAP network serves, Mashburn often has to work in areas where a town doesn't even exist yet. For instance, Mashburn has been working with the Westwater Diné people



who couldn't afford to live in the local town. Most of the people were Navajo by descent and few speak English.

These marginalized people had been squatting on the land for 40 years, building makeshift homes they did not own. Because their homes did not meet county codes, the local town was unable to provide them with water and wastewater systems.

Mashburn and RCAC worked to come up with a solution to the dilemma: The

Navajo nation bought the land inhabited by the Westwater Diné people. Through this arrangement, the residents were able to obtain a homesite lease through a trust land agreement with the Navajo nation.

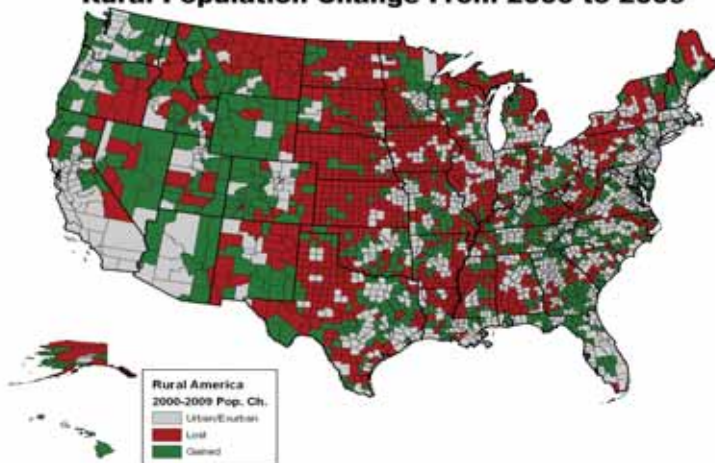
The 120-acre property will be the site of 28 new homes for the Westwater Diné people. \$150,000 was set aside to construct eight new homes on the land, all of which will meet county codes and will be outfitted with water systems from the nearby municipality. Mashburn relied on the help

Photo courtesy of Jay Mashburn

continued on next page

Rural population growth outpaced by national population growth

Rural Population Change From 2000 to 2009



continued from previous page

of volunteers from Snow College and the Hearts and Hands in Action organization to construct the new homes.

While he contributed heavily to the project, Mashburn stresses the team-oriented nature of RCAC. He works on a team that covers Utah, Colorado, Arizona, and New Mexico. This network allows Mashburn to “call on someone else with different experiences and strength to divide up the work.”

The collaboration also enables Mashburn and his fellow TAPs to tackle projects beyond the scope of water and wastewater systems. In Costilla County, Colorado, in addition to improving water sanitation, RCAC TAPs were able to pilot a biodiesel program and several community upgrades including health care, the prevention of illegal waste dumping, and affordable housing.

Costilla County continues to manufacture biodiesel fuels that run all of the county’s equipment and provides feed for local ranches. As with other projects, Mashburn was able to achieve the most rewarding aspect of his work: watching a community carry out a program after the RCAP team ceased their work.

Mashburn’s hobbies also reflect his enjoyment of the environment and outdoors. He avidly participates in outdoor sports such as back-country skiing, bike riding and backpacking.

A more unusual pastime for Mashburn is hobby farming, which ranges from keeping cattle and goats or maintaining a vegetable garden to beekeeping. Whether he’s working as a Rural Development Specialist or partaking in a variety of outdoor hobbies, Mashburn is committed to promoting and enjoying the landscape of the West. ■

Alexa Byrne was the summer Communications Intern in the RCAP national office.

While the overall population of the United States grew by 9.1 percent during the 2000s, rural America was unable to match this pace. According to Robert Gallardo, a research associate at the Southern Rural Development Center at Mississippi State University, the population of rural America grew by only 2.9 percent, far eclipsed by the nation’s brisk population increase.

Not only did rural America fall behind in population growth, but the growth it did experience was hardly uniform. The rural population of the Midwest mostly declined in population, while rural Washington state boasted increases in residents in almost every county.

The overall effect of this revelation is that, according to Gallardo’s article published on the Daily Yonder blog, “by the end of the decade, the United States had grown less rural.”

Ethnicity is a factor in this phenomenon. The proportion of rural counties that is white is decreasing. Gallardo attributed this, in part, to a failure to keep pace with immigrant groups or populations that have a higher natural growth rate. For instance, “Hispanics increased their share of the population in almost every rural county,” said Gallardo.

Gallardo’s research and report help to shed light on the changing face of the rural community and unveils more information about racial and population changes that can be seen in the communities RCAP serves.

Go to www.dailyyonder.com/rural-america-2000s-population/2010/07/12/2834 to read “Rural America in the 2000s: Population,” Robert Gallardo’s complete findings.

Rural residents, employment and environmental regulations

This study is not the only revelation made recently in regards to rural populations. A study published in the *Rural Sociology* journal suggests that people living in rural areas with high unemployment rates are more likely to oppose environmental regulations than those living in rural areas with higher rates of employment and population growth.

Larry Hamilton, the leader of the study, professor, and senior fellow at the Carsey Institute at the University of New Hampshire, has found that “people living in areas with high unemployment rates may perceive environmental rules as a threat to their economic livelihood.”

In the communities RCAP serves, this may explain a cause of some tension between government and residents over the adherence of water regulations to improve both drinking and wastewater systems. RCAP works with communities to understand the necessity of water regulations and assure compliance. ■

Rural population map by Roberto Gallardo/Census
<http://www.dailyyonder.com/files/images/2000-2009%20Pop%20Ch%20full.jpg>



Editor's note: The following is a reprint of an article from The (Wilmington, Del.) News Journal about a project that the Southeast Rural Community Assistance Project, the Southeast RCAP, became involved with in order to assist a community with establishing a central water system.

One man's tenacity impacts hundreds

By Beth Miller,
The News Journal

For his decades of strategic, selfless service, *The News Journal* includes Harold Truxon on its list of “25 Who Matter,” the third in its biweekly series introducing readers to unsung heroes who have strengthened the community in extraordinary ways.



Harold Truxon, 79, is a gregarious, energetic man – “jolly” is how one friend describes him – and those qualities help him connect with all kinds of people, whether those in high positions or those in tough places. He loves a challenge, too, and is not easily discouraged – as Ellendale’s (Delaware) sewer proves.

“If it wasn’t for Harold Truxon, there would not be a central sewer in Ellendale – at least not as soon as it was, and it may have been smaller and more expensive,” said Gerard Esposito, president of Tidewater Utilities. Esposito was director of Water Resources for the state Department of Natural Resources and Environmental Control during part of Truxon’s battle.

“After 23 years in government, I know you need a champion in the community or things get dropped, lost or shuffled aside. ... He was persistent, and he just didn’t accept ‘no’ for an answer.”

All in the Genes

He had that kind of mother, too. Truxon, the oldest of nine children, grew up in Hillsboro, Md., where his father worked for a hardware store and his mother, Georgianna, was a strong figure in the community, working with the WPA – President Franklin Delano Roosevelt’s Works Progress Administration, which provided jobs and relief during the nation’s recovery from the Great Depression. She worked hard for the people in her community.

“My mother was a fighter,” Truxon said. “Maybe a gene fell off of her and onto me.”

Fentress Truxon could believe that. For as long as he can remember, his father has been looking after people one way or another. For a while, it was out of the back of the family car. He’d offer sandwiches – selling some, giving some away. Later, he rigged up a small tent, set it up and started selling fried chicken. That led to a small trailer – a portable grill type of thing with skillets, burners, a french fryer and soda fountains. Truxon hauled it around to the state fair, to the speedway in Lincoln, to camp meetings throughout the area.

And, of course, there was Truxon Delmarvelous Fried Chicken – an institution on U.S. 113 for years, including that big ice storm when Gov. Russell Peterson sent state workers to help him open the restaurant and feed the state workers, emergency responders, and the crew of that ship stuck in ice off the Delaware coast.

“But what touched me the most was that he always had a pot of soup on the stove,” said Fentress, the first of his five children, now 52 and living in Tempe, Ariz. “If you didn’t have any money and you couldn’t buy a meal – well, my dad would never let anybody go hungry.”

He worked hard as a trustee at his church, Mt. Zion AME in Ellendale, on the board of First State Community Action, with the Human Relations Commission.

“He is very concerned about the future generation and the opportunities they will have,” said his pastor, the Rev. Linda Powell.

As he and his wife, Virginia, were raising their five children, Truxon read a newspaper story about high cancer rates in the area. It bothered him. When he learned that his church couldn’t open a day care because something had seeped from a nearby junkyard into the church’s wells, he was concerned. The church had to use bottled water until recently – when a new, deeper well was installed. He learned that other private wells were polluted with

continued on next page

nitrates and, in some cases, bacteria from failing septic fields.

Truxon wanted some answers, so he started making phone calls. At first, few of his calls were returned. He complained about that to his state senator, the late Thurman Adams, and his phone started ringing.

"I had no problem getting calls through after that," Truxon said. "Sen. Adams was my best friend." He called state officials and county officials. He got wells tested. He met with the feds. He spoke with reporters at The News Journal and WBOC-TV. And slowly – sometimes agonizingly so – he and his allies made their case.

Ed Hallock, program administrator for the Division of Public Health's Office of Drinking Water, said residents couldn't afford a new sewer system and a new water system. They opted to start with sewer.

A Relentless Mission

It wasn't enough to prove that septic systems were failing. It wasn't enough to get a sewer system approved. The hook-ups had to be inexpensive, or the high-poverty areas would never benefit from it.

"What Harold made sure we kept in mind was that it's got to be affordable," Esposito said. "You can't just charge them \$4,000 a year when they were paying nothing, literally using outhouses or less. We had to keep it under a targeted amount – less than \$500 a year."

Grants, loans, help from Sussex County Council and state officials, plus about \$2.5 million in federal money made it happen, Truxon said. Though the town council wanted no part of the plan at first, saying the system was not necessary, it changed its mind as Truxon's group gained momentum.

"He pushed and he pushed and he pushed," said Loretta J. Benson, a member of the Ellendale Association. "We all just prayed about the situation, stuck with him and kept on going."

Truxon and his allies then held fundraisers, collecting more than \$10,000 to help people pay the hook-up fees. "He's always been the type of person that has a lot of energy and wants to do the best he can for the people that are in his church and live in his area," said Rodney Wyatt, who was an engineer for Sussex County and now works for Artesian Water. "He doesn't stop. If he doesn't get the right answer, he keeps going until he does."

Some have criticized Truxon's ways, but the Ellendale Association and town officials are working together now. Delores Price, a resident for more than 50 years and the town's council president for the past five years, said Truxon knows how to get things done.



Photo by Bob Herbert, The News Journal

"People trust him," she said. "They come to him and ask him to help if they need a permit or something. ... You can't please everybody and you're not going to. But he has been helpful." The town has hopes for significant growth, Price said, but the pace of that growth will be set in large part by the pace of the economic recovery.

Now 79, Truxon has more goals. He wants clean water for all in the Ellendale community and he wants a wellness center. He wants the area to be in a central water district, and Esposito and Wyatt both believe that future development eventually will bring the financial muscle needed to make that happen.

"They are on the project priority list for the next round of funding," Hallock said.

"But there is still a lot of work to do as far as designing the system." In October, higher-than-recommended nitrate levels were found in 26 percent of 19 Ellendale wells tested.

Hallock said the levels were not extreme, but would be a concern for households with infants, pregnant women or nursing mothers. The state Cancer Registry shows Ellendale's cancer rate from 2001 to 2005 was about the same as the state's, according to Division of Public Health spokeswoman Heidi Truschel-Light. A 2004 state investigation concluded that cancer in the town could not be linked to possible water contamination.

But Truxon points to the water standing in nearby fields, rising almost to the doors of some trailers. That water seeps into the area's shallow wells, carrying who-knows-what. "What are the people drinking?" he said. "It bothers me. What are they drinking right now?" Bishop Foster said that's a worry. "A lady called me yesterday and said they can't drink their water," he said.

"People are getting sick. We're working on that now." Foster said he and Truxon weren't always allies. They came "from two different sides of the fence," he said. But as they met up in community meetings, they found their goals were similar. Foster believes God put them together for the work they do now.

"These people are very poor, and they don't have much power," Foster said. "Truxon tries to be a voice for those people." And he has his own way with that, the bishop said. "We're going to get that water," Foster said. "I'm a preacher. Truxon's not a preacher. He can say some words I can't say." He doesn't say "quit," though. "I tend to believe that ordinary people can do extraordinary things if they don't give up," Powell, the Mt. Zion AME pastor, said. "That's Brother Truxon." ■

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RCAP represented on national EPA advisory council

By Alexa Byrne

The U.S. Environmental Protection Agency's National Drinking Water Advisory Council held its summer meeting July 21 through 23 in Washington, D.C. In attendance to represent the national RCAP network was Olga Morales-Sanchez, a Rural Development Specialist with the Rural Community Assistance Corporation, the Western RCAP.

One of the formal means by which EPA works with its stakeholders, the council exists to provide EPA with independent advice, consultation and recommendations regarding Safe Drinking Water Act policies, functions and activities. The council is comprised of members of the general public, state and local agencies, and private groups.

Morales-Sanchez is enthusiastic about her participation on this elite council, working with the EPA and other related organizations to voice concerns and resolve issues related to the assurance of safe drinking water.

"I think it's a great opportunity to be a part of this council because [I] get to represent all of the communities that we, as RCAP, serve throughout the nation," explained Morales-Sanchez. "We have the opportunity to voice the concerns, the issues and the challenges, so I think it parallels with the missions that the RCAPs have across the nation."

Morales-Sanchez is also co-chair of the council's 21-member climate-ready water

utilities working group. In this role, she lends her knowledge of climate change to a larger discussion on preparedness and tries to guide fellow members through the challenges of getting water systems to be climate-ready.

The working group's goals are to devise strategies to help utilities adapt to climate change; identify climate change-related tools, trainings and products that address water and wastewater managers' short-term and long-term needs; and incorporate mechanisms to provide recognition and incentives for the water sector to broadly adapt climate change and mitigation strategies into existing EPA Office of Water programs.

At the committee's meeting, three of the group's members, including Morales-Sanchez, presented an update on the group's progress. The group provided the council with the framework of a report they have been developing, what Morales-Sanchez referred to as "the meat and bones" of a formal presentation they will make in the fall. The council will receive the group's report at that meeting and make any modifications before presenting it to the EPA with the recommendations it will contain.

"Having worked for many years with a large number of utilities that are already experiencing the effects of climate change, Olga understands the need for comprehensive planning and utility training to meet these challenges," said Robert Stewart, RCAP executive director.



Photo by Stephen Padre

"Olga also brings to this group an intimate knowledge of the management and operations of small utilities—utilities that as a result of limited resources could be most dramatically impacted by the effects of climate change," Stewart added.

Jeff Cooley, a former employee of Community Resource Group, the Southern RCAP, also sits on the council. Now a Utilities Division Operations Manager for the city of Vacaville, Calif., Cooley is also a member of the climate-ready water utilities working group and presented with Morales-Sanchez at the meeting.

Other topics the council discussed included environmental justice, addressed in a discussion by an EPA staff member, the Toxic Substance Control Act, group contaminants under the Safe Drinking Water Act, and Clean Water Act integration.

In representing RCAP on the council, Morales-Sanchez is able to further her personal objective "to give a voice to small, rural, disadvantaged communities that are, in most cases, voiceless, and make sure that their issues and concerns are brought before EPA when it comes to regulatory issues," a purpose that gets to the heart of the RCAP mission. ■

Alexa Byrne was the summer Communications Intern in the RCAP national office.

By Tom Clark

Lake Carmi, Franklin, Vt.

Franklin Watershed Committee receives governor's award for environmental excellence and pollution prevention

Photo courtesy of RCAP Solutions

In May, the governor of Vermont informed the Franklin Watershed Committee that a panel of judges had selected its Lake Carmi Phosphorus Reduction Project for this year's Governor's Award for Environmental Excellence & Pollution Prevention. The project was chosen for demonstrating progress toward protecting the troubled watershed with increased education and training, community consensus-building, and buy-in from the community to sustain the watershed.

RCAP Solutions, the Northeast RCAP, has been working with the Franklin community and others in the region to protect and enhance Vermont's natural water quality. With the recognition the project has received from this award, the community stands as a model in the state for innovative approaches to conserving natural resources, safeguarding human and environmental health, and pro-actively preventing pollution.

An overview of the landscape

Franklin is a very small farming community in northern Franklin County on the Canadian border with an estimated population of 1,268. Lake Carmi, a small lake in the area, is surrounded by camps, cottages and farms (five dairy farms and many acres of corn, hay and pasture). Approximately 44 percent of the watershed for the lake is farmland. Bordering the lake is Lake Carmi State Park, one of the most popular state parks in Vermont, as well as approximately 2.9 miles of undeveloped shoreline. There are 206 camps and 3,700 feet of road within 160 feet of the shore, with most of the campground in close proximity to the shore.

Lake Carmi is relatively shallow with a maximum depth of 33 feet and is approximately 3 miles in length. At the southern end of the lake is the Lake Carmi Bog. A small part of the bog lies within the Missisquoi watershed, which eventually reaches Missisquoi Bay in Lake Champlain. The lake is natural, but there is a culvert, which,

during high water flow, restricts the flow, raising the water level about 2 feet above its natural level. A dam near the north end of the lake, which was originally built in the 1800s to power a sawmill, was rebuilt in 1970 further down the Pike River, which flows out of the lake into Canada and eventually back into the Missisquoi Bay of Lake Champlain.

Challenges with water quality

Lake Carmi has experienced high phosphorus concentrations, affecting water quality for several decades. Late-summer algae, reduced water clarity, and heavy aquatic plant growth persist, which has resulted in the State of Vermont Agency of Natural Resources, Water Quality Division issuing a Total Maximum Daily Load (TMDL) for the lake. This total amount identifies the phosphorus that can enter the lake without causing water quality problems as part of section 303(d) of the Clean Water Act. This determination is the result of considering a very delicate

balance between plant growth and water quality, and the state has provided guidelines as to how much the load needs to be reduced.

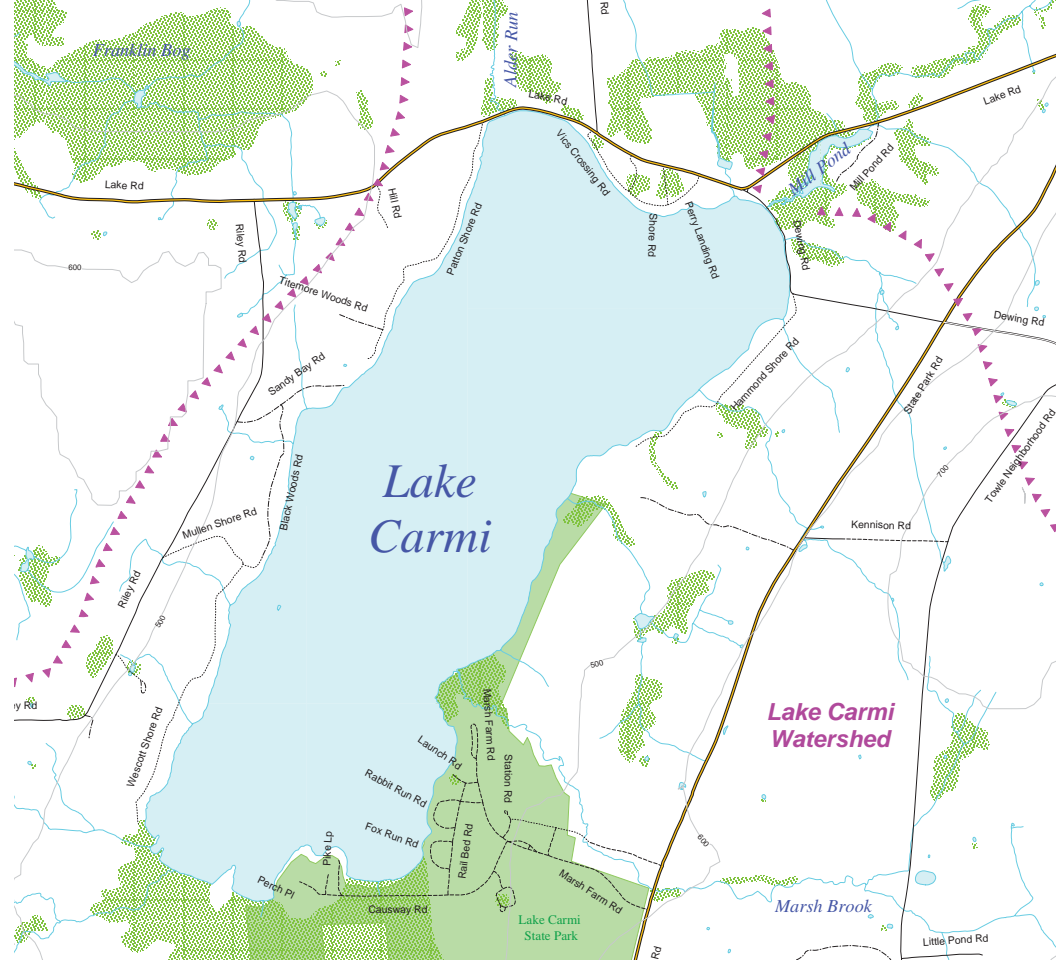
The camps and cottages that crowd a significant portion of the shore are inadequately served by water or wastewater facilities. Most residents get potable water from a nearby spring and their non-potable water from the lake. Nearby farmland drainage may also be contributing to the problem. Most of the camps are very small and have not been improved over the years.

Residents mobilize

In this community, concerned residents formed the Franklin Watershed Committee to work to reduce the phosphorus and improve the lake. The committee has been working with the Vermont Agency of Natural Resources, Water Quality Division and many other organizations including RCAP Solutions to raise awareness about maintenance of septic systems, shoreline management and repair, stream and lakeside bank erosion, and agricultural phosphorus reduction and management. These organizations have also carried out outreach and education to the community.

RCAP Solutions has provided technical assistance to the Franklin Watershed Committee, assisting its members in resolving their watershed management needs. One of RCAP Solutions' major contributions to the effort has been the development of a door-to-door sanitary, interest and attitude survey of lakeside residents. This ongoing survey will serve as an educational tool to provide further information about onsite wastewater disposal and shoreline erosion in an effort to prepare the community to take further steps in protecting the lake.

RCAP Solutions staff also began the process of working with the committee in an effort to create a watershed-management plan for Lake Carmi. Because the body of water is the headwater for some of Mis-



Map courtesy of Franklin Watershed Committee, prepared by GrassRoots GIS, Underhill, VT

sisquoi Bay in Lake Champlain, the plan will also serve the larger watershed. Committee members are surveying residents and collecting data about the community while learning more about the potential solutions that may be employed in the future.

Under entirely natural conditions, Lake Carmi would be fairly nutrient-rich when compared to deeper lakes in Vermont.

However, it has been documented that conditions have changed considerably in the last 200 years. The committee formed a partnership with the Vermont Agency of Natural Resources and scientists from the University of Vermont to continue to work toward preserving water quality throughout the region. ■

Tom Clark is the Vermont Lead for RCAP Solutions.



Photo courtesy of RCAP Solutions

A photograph of a forest stream flowing over moss-covered rocks. The water is clear and white, creating a soft, blurred effect as it moves. The surrounding forest is dense with green foliage and large trees, creating a vibrant and natural setting.

Mapping Ground Water Rule requirements: Triggered and additional source water monitoring

This is the second in a series of five articles by the U.S. Environmental Protection Agency (EPA), Office of Ground Water and Drinking Water (OGWDW) that summarize key components of the Ground Water Rule (GWR). As with all drinking water rules, please check with your primacy agency for specific, state-related requirements.

After all five articles are published in Rural Matters, they will be joined together in one booklet, which will be available on the RCAP website.

Disclaimer: This article is not a rule and is not legally enforceable. As indicated by the use of non-mandatory language such as “may” and “should,” it does not impose any legally binding requirements. This article describes requirements under existing laws and regulations and does not replace any existing established laws or regulations.

Source water monitoring

The Ground Water Rule (GWR) has four basic requirements: source water monitoring; compliance monitoring; sanitary surveys; and corrective action. The previous article in the series (issue 3, page 18) introduced some of the key elements of the rule and provided a glimpse of future articles detailing the components of the GWR. This article discusses the source water monitoring component in further detail.

continued on next page

An overview of this series of articles on the Ground Water Rule

The goal of this series of articles is to help ground water systems (GWSs) navigate their way through the Ground Water Rule (GWR) requirements.

- [Article 1: Introduction to the rule](#)
Some of the key elements of the rule were introduced. Find this article in Rural Matters Issue 3, page 18 or at www.rcap.org/sites/default/files/rcap-files/RM/2010/Mapping_GWR_Requirements_Intro.pdf
This article also included a glossary of terms, some of which are used in Article 2.
- ➡ *Current article:* [Article 2: Triggered and additional source water monitoring](#)
- [Article 3: Compliance monitoring](#)
An operator confirms through compliance monitoring that the treatment technologies installed to treat drinking water are reliably achieving 4-log treatment of viruses before or at the first customer.
- [Article 4: Sanitary surveys and corrective action](#)
Sanitary surveys require utilities to evaluate eight critical elements of a public water system as well as identify significant deficiencies that may exist at the water system. Corrective action will be required for any system with any significant deficiencies.
- [Article 5: Ground Water Rule Public Notification and Consumer Confidence Report requirements for community and non-community water systems](#)
The GWR has new public notification, special notice, and consumer confidence report requirements that affect community and non-community water systems, as well as wholesale and consecutive water systems.

As seen in Figure 1, triggered and additional source water monitoring applies to ground water systems (GWSs) that do not reliably provide 4-log treatment of viruses, which includes inactivation/removal or a state-approved combination of these technologies before or at the first customer. These systems may have to conduct source water monitoring (Figure 1) to comply with the GWR in the event of a total coliform-positive (TC+) sample collected in their distribution system.

Source water monitoring is comprised of triggered and/or additional monitoring, which is discussed in this article, and assessment monitoring, which will be covered in the following article.

Triggered source water monitoring

GWSs that do not provide at least 4-log treatment of viruses and are notified of a routine TC+ sample collected under the Total Coliform Rule (TCR) must conduct triggered source water monitoring. Triggered source water monitoring includes the collection and analysis of samples for fecal indicators and helps determine if fecal contamination is present in the ground water source.

Within 24 hours of being notified of a routine TC+ sample, the GWS must collect one ground water sample for each TC+ from each source in use when the routine TC+ sample was collected. The sample must be collected prior to treatment or at a state-approved location. Some GWSs might have to install a tap prior to treatment in order to collect this sample if

one is not already in place. Both triggered and additional source water monitoring sample volumes must be at least 100mL.

For systems that serve less than 1,000 people, the GWR allows the system, with state approval, to use the triggered source water sample to meet both TCR and GWR requirements as long as the state has approved the use of *E.coli* as a fecal indicator for source water monitoring under both TCR and GWR.

The GWR allows for representative sampling for those GWSs that have multiple sources. Instead of collecting a triggered source water sample per source in use at the time the routine TC+ was collected, the state may allow a GWS with multiple sources to sample from a groundwater source that is representative of the aquifer and of the monitoring sites in the system's state-approved TCR sample plan. The

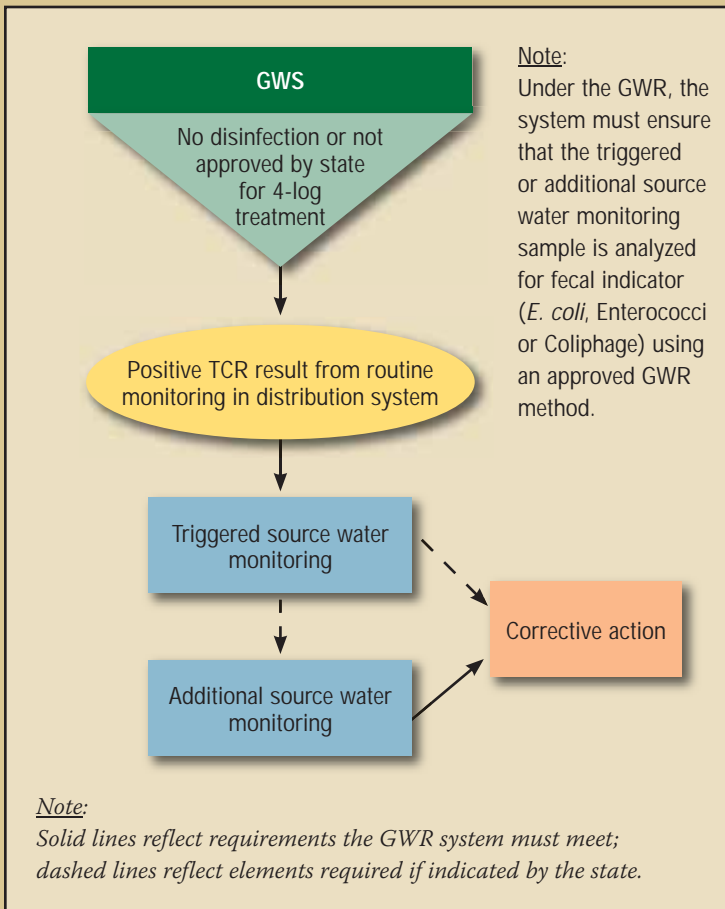


Figure 1. Triggered source water monitoring requirements

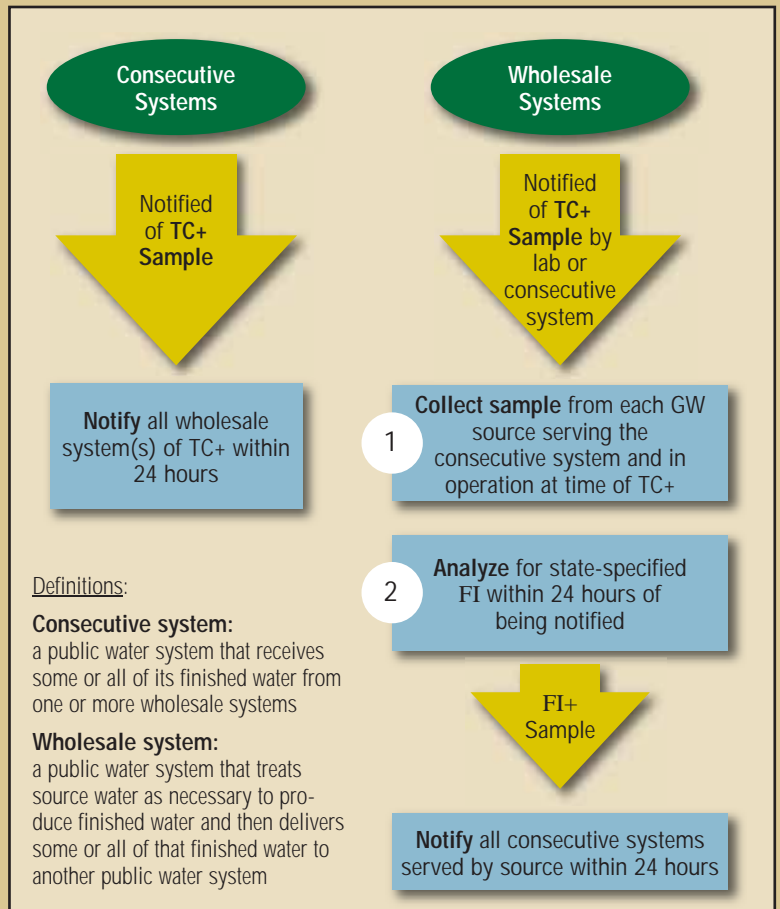


Figure 2. GWR triggered source water monitoring requirements for consecutive and wholesale systems



Photo by Stephen Padre

representative sample locations must be approved by the state.

When conducting representative monitoring, systems must still collect the sample within 24 hours of being notified of the routine TC+ sample and analyze the sample using an approved method (see Table 1). Representative sampling may be beneficial for some systems because it reduces the monitoring cost burden.

The GWR authorizes the state to require a triggered source water monitoring plan if the GWS will be conducting representative monitoring.

The GWR has specific requirements for triggered source water monitoring conducted by wholesale and consecutive systems as shown in Figure 2.

In the event that a wholesale system that does not provide 4-log treatment of viruses at all of its groundwater sources is notified by a consecutive system of a routine TC+ sample collected under TCR, the wholesale system must sample each groundwater source in operation at the time the TC+ was collected and analyze those sources for the state-specified fecal indicator within 24 hours of being notified of the TC+ sample.

If this subsequent sample is fecal indicator-positive (FI+), the wholesale system must notify all consecutive systems served by the FI+ source and take the state-approved corrective action.

In turn, both the wholesale and the consecutive systems that delivered finished water from the FI+ ground water source must notify their consumers under the

Table 1. Methods

Samples must be analyzed using methods approved under the GWR. The table below identifies the approved methods.

| Fecal indicator | Methodology | Method name |
|-----------------|--|---------------------------|
| <i>E. coli</i> | Colilert | 9223 B |
| | Colisure | 9223 B |
| | Membrane Filter Method with MI Agar | EPA Method 1604 |
| | m-ColiBlue24 Test | see footnote ¹ |
| | E*Colite Test | see footnote ² |
| | EC-MUG | 9221 F |
| | NA-MUG | 9222 G |
| Enterococci | Multiple Tube Technique | 9230 B |
| | Membrane Filter Technique | 9230 C |
| | Membrane Filter Technique | EPA Method 1600 |
| | Enterolert | see footnote ³ |
| Coliphage | Two-step Enrichment Presence-Absence Procedure | EPA Method 1601 |
| | Single Agar Layer Procedure | EPA Method 1602 |

Analyses must be conducted in accordance with the documents listed below. The Director of the Federal Register approves the incorporation by reference of the documents listed in footnotes 2–11 in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the documents may be obtained from the sources listed below. Copies may be inspected at EPA’s Drinking Water Docket, EPA West, 1301 Constitution Ave. NW, Room B102, Washington, DC 20460 (Telephone: 202/566-2426); or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202/741-6030, or go to www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html

¹A description of the m-ColiBlue24 Test, “Total Coliforms and *E. coli* Membrane Filtration Method with m-ColiBlue24 Broth,” Method No. 10029 Revision 2, August 17, 1999, is available from Hach Company, 100 Dayton Ave., Ames, IA 50010 or from EPA’s Water Resource Center (RC-4100T), 1200 Pennsylvania Ave. NW, Washington, DC 20460.

²A description of the E*Colite Test, “Charm E*Colite Presence/Absence Test for Detection and Identification of Coliform Bacteria and *Escherichia coli* in Drinking Water, January 9, 1998, is available from Charm Sciences, Inc., 659 Andover St., Lawrence, MA 01843-1032 or from EPA’s Water Resource Center (RC-4100T), 1200 Pennsylvania Ave., NW, Washington, DC 20460.

³Medium is available through IDEXX Laboratories, Inc., One IDEXX Drive, Westbrook, Maine 04092. Preparation and use of the medium is set forth in the article “Evaluation of Enterolert for Enumeration of Enterococci in Recreational Waters,” by Budnick, G.E., Howard, R.T., and Mayo, D.R., 1996, *Applied and Environmental Microbiology*, 62:3881–3884.

continued on next page

Tier 1 Public Notification (PN) requirements and via Special Notice in the Consumer Confidence Report, both of which are described in more detail in the fifth article of this series.

Additional source water monitoring

If a triggered source water monitoring sample is FI+, the system must conduct additional source water monitoring unless the state requires corrective action. Figure 3 provides a graphical representation of these requirements. If the state invalidates a FI+ sample, the system must collect a new sample for the same fecal indicator.

To comply with the additional source water monitoring requirement, the system must collect five additional source water samples within 24 hours of learning of the FI+ triggered source water sample, unless the state requires corrective action or if the sample is invalidated by the state. The samples must be collected from the same ground water source where the original triggered source water monitoring sample

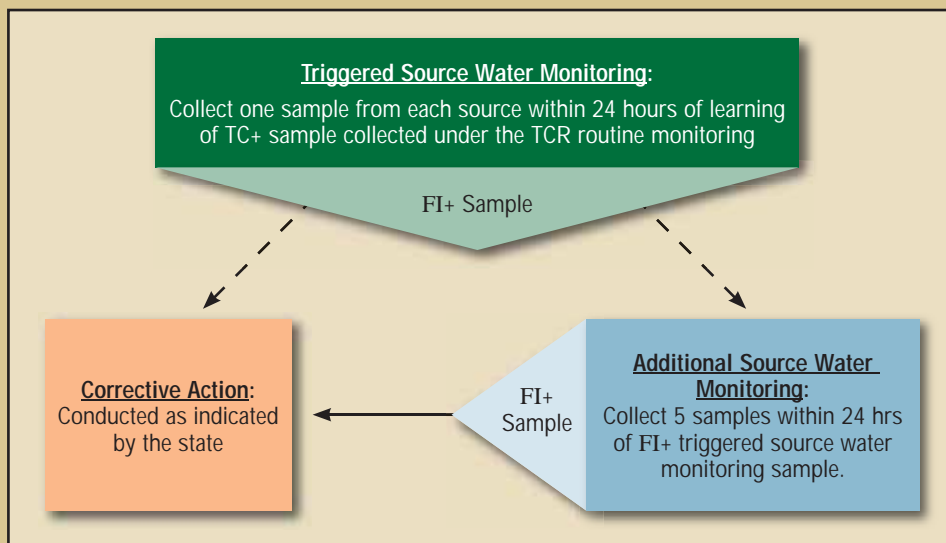


Figure 3. GWR requirements for FI+ triggered source water monitoring sample

was collected and that had a FI+ source water sample.

The GWS should ask the state for the frequency at which it must collect the additional source water monitoring samples during the 24 hour period as well. If one of the additional source water samples is FI+, the GWS is required to take corrective action as discussed in the GWR. Corrective action is discussed in the fourth article of this series.

Training opportunities

Currently EPA's headquarters has not scheduled any additional workshops or webcast trainings on the GWR. However, there still may be trainings sponsored by your state, EPA region, or technical assistance providers. Contact your EPA region or state for more information on workshops or trainings that may be held near you. For more information on the GWR, please visit the GWR homepage at <http://water.epa.gov/lawsregs/rulesregs/sdwa/gwr/regulation.cfm> ■

Frequently asked questions about triggered source water monitoring

- Q:** If a GWS analyzed a triggered source water monitoring sample for *E.coli*, is it required to analyze the additional source water monitoring sample for *E.coli* as well?
- A:** No. The federal rule does not state that the additional source water monitoring sample be analyzed for the same fecal indicator used for triggered source water monitoring. This would be a state-specific requirement. Please check with your state to ensure you analyze the sample for the correct fecal indicator.
- Q:** If any of the GWS's repeat TCR samples are TC+, does the GWS have to take more triggered source water monitoring samples?
- A:** No. The GWS is only required to conduct triggered source water monitoring in response to a TCR routine sample result that is TC+. However, the state may require the GWS to conduct assessment monitoring if it believes that the source might be vulnerable to contamination.
- Q:** Is a FI+ triggered source water sample a treatment technique violation?
- A:** No. A FI+ triggered source water sample requires either corrective action or additional monitoring as determined by the state. It also requires Tier 1 PN, Special Notice in the Consumer Confidence Report, and notification to any consecutive system that could have received water from the FI+ source. Under the GWR, the system will only receive a treatment technique violation if it fails to meet the corrective action requirement, provide treatment or maintain microbial treatment.



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