

# RURAL matters



2010  
Issue 3/6

The magazine of the Rural Community Assistance Partnership

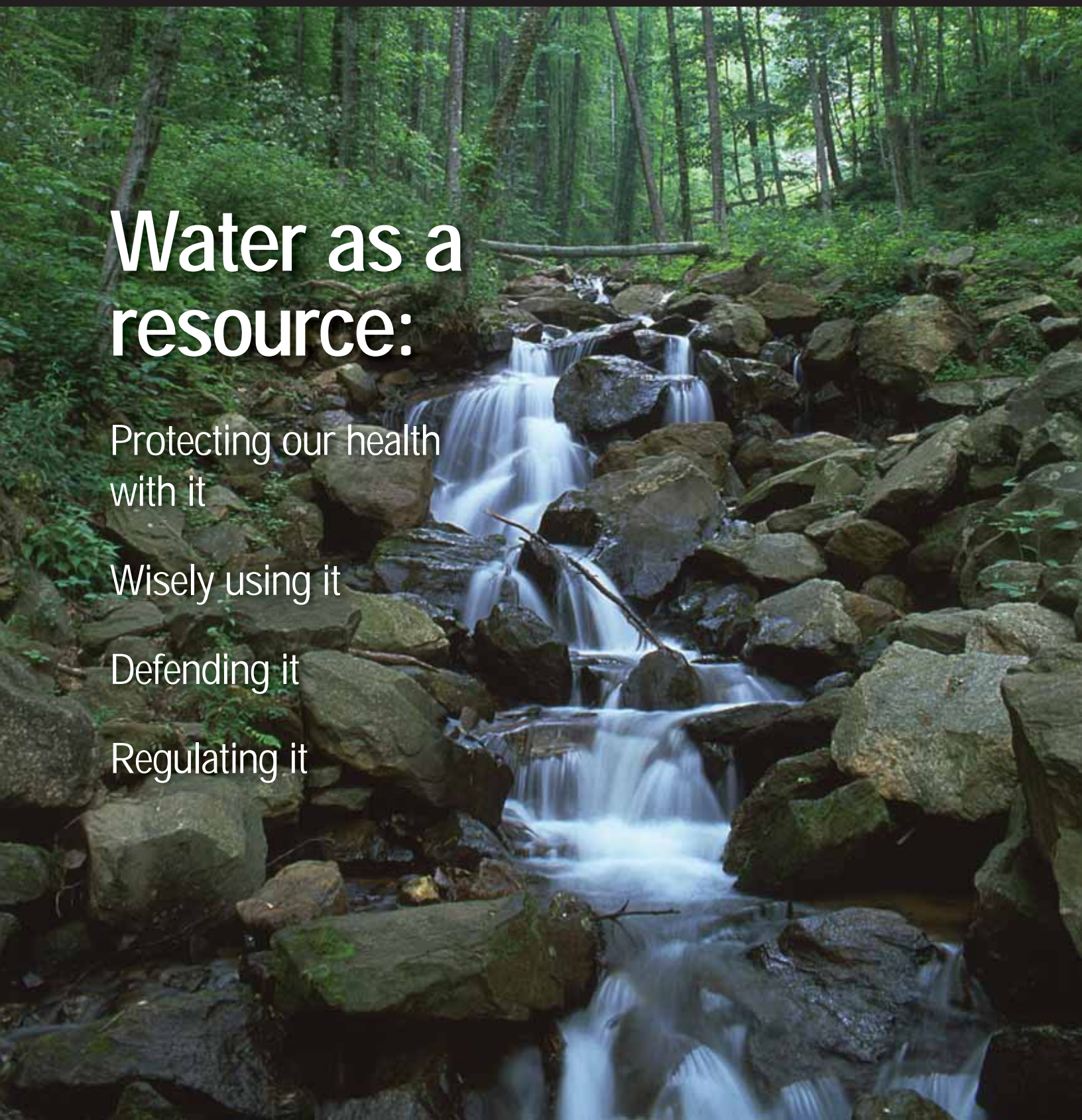
## Water as a resource:

Protecting our health  
with it

Wisely using it

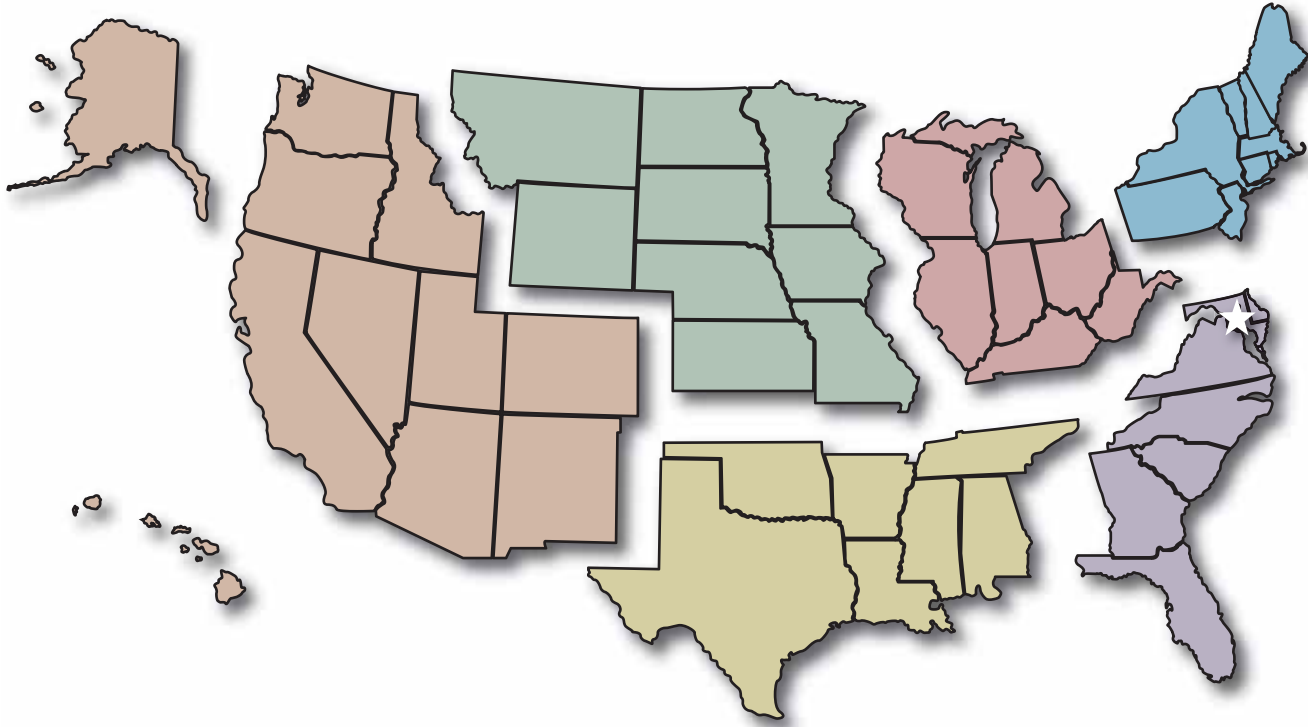
Defending it

Regulating it





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



## Western RCAP

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Puerto Rico  
(Northeast RCAP)

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Introduction to the rule



Photo by  
Scott Bauer, USDA

# Improving the quality of life in rural communities

## RURAL matters

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# Director's letter



Robert Stewart  
RCAP Executive Director

May and June in the Washington, D.C., area were abnormally hot, with a record number of days with highs in the 90s. Hot and dry summer weather can remind us that clean, affordable and readily available drinking water is a resource that must be conserved and protected.

One of the articles in this issue addresses the impacts of bottled water operations in rural communities. At times, these bottling activities can adversely impact groundwater resources in rural areas, generate new waste products and greatly increase truck traffic on rural roads not designed for such heavy use. Although promises of economic development and employment are made in conjunction with these operations, rural communities are faced with tradeoffs between what few jobs might be created versus the negative and long-term environmental impacts of heavy withdrawals from local aquifers. It's also important to note that most bottled water operations receive their water from municipal systems. As a supporter of community water systems, RCAP works with local residents, utility staff and elected officials to ensure that the water from your tap is not only affordable but meets all state and federal drinking water quality regulations.

While there is a never-ending array of regulatory requirements facing all drinking water utilities, including the groundwater rule discussed in this issue, EPA is making another attempt to clarify and simplify its approach to regulated contaminants in drinking water. EPA is considering a more cost-effective approach of addressing contaminants within a group rather than individually, as well as the development of new treatment technologies that address health risks posed by a broad array of contaminants. At the same time, EPA continues to identify individual carcinogenic compounds for which regulations will be proposed. To this end, EPA has initiated a comprehensive process to gather input from all relevant stakeholders and the public. RCAP will be assisting EPA in this process, and we will provide additional information on our website in the coming months. RCAP field staff, working under EPA and state primacy agency programs, continue to assist small rural communities with compliance matters and to seek their input on new regulatory and programmatic initiatives such as these.

And let's not forget other water supply and affordability issues. Specifically, I'm referring to water loss, or, as some would say, unaccounted-for water or non-revenue water. For some utilities, upwards of 25 percent of the water that is treated never makes it to customers. There is no national regulatory requirement or standard in this area, even though some states are moving in this direction. Too often utilities operate in the reactive mode concerning water loss; if someone reports a water main break, it is then fixed. The potential cost savings to the customer from eliminating all types of water loss is substantial, and not enough attention is being paid by state and federal agencies to this issue. For example, transmission and distribution lines need to be monitored and replaced as needed, customer meters should be regularly maintained, and operations must be monitored to eliminate leakage or overflows from storage tanks. Do you know how much non-revenue water your utility produces (or loses)?

Finally, I want to welcome Marcie McLaughlin to RCAP as a new member of our national board of directors and the new CEO of the Midwest Assistance Program (MAP), the Midwest RCAP. Marcie has a wealth of experience with rural communities (see Rural Developments, p. 8), and we are looking forward to her active participation in our partnership! ■

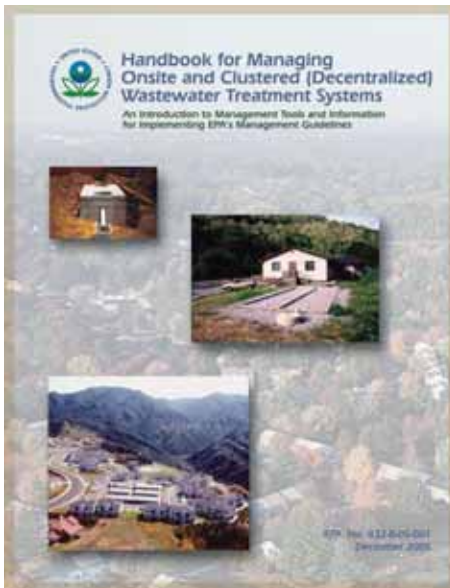


# rural developments



## News and resources from the Environmental Protection Agency

### EPA Decentralized Wastewater Management E-Handbook now available



The EPA Office of Wastewater Management has recently expanded its *Handbook for Managing Onsite and Clustered (Decentralized) Wastewater Treatment Systems* with the addition of an "E-Handbook."

The E-Handbook features resource guides containing detailed information on the 13 management program elements featured in the existing management handbook: public education, planning, performance, site evaluation, design, construction/installation, operation/maintenance, inspections/monitoring, residuals management, training/certification, financial assistance,

inventory/recordkeeping, and compliance assurance.

The E-Handbook focuses on individual and clustered wastewater systems that discharge to the soil, but the information can also be applied to small systems that discharge to surface waters through federal or state National Pollutant Discharge Elimination System (NPDES) permit programs.

The E-Handbook is intended for health departments, wastewater system management entities, local governments, and other organizations involved in managing multiple, individual, or clustered treatment systems.

Each resource guide contains detailed information regarding each program element topic and links to other resources, case studies, and examples of successful management programs.

Resource guides in the E-Handbook are at [http://cfpub.epa.gov/owm/septic/septic.cfm?page\\_id=289](http://cfpub.epa.gov/owm/septic/septic.cfm?page_id=289)

Main guide is at [www.epa.gov/owm/septic/pubs/onsite\\_handbook.pdf](http://www.epa.gov/owm/septic/pubs/onsite_handbook.pdf)

### EPA's Semiannual Regulatory Agenda available

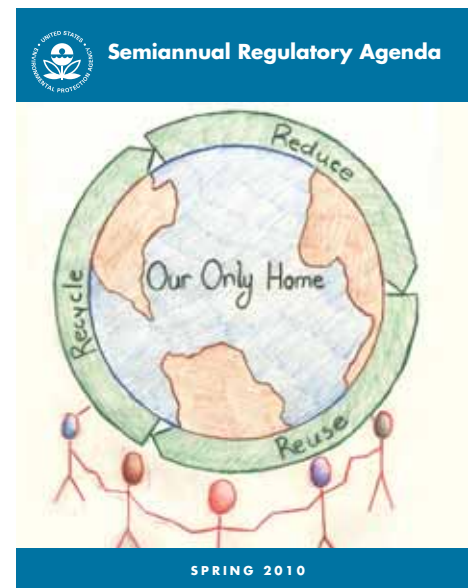
Twice a year, a number of federal agencies combine efforts to publish a comprehensive report describing regulations currently under development or recently completed. These reports are bundled together and published as the Unified Agenda. Each

agency's contribution is called a Regulatory Agenda. Once a year, a Regulatory Plan is released along with the Unified Agenda. The Environmental Protection Agency contributes to each publication. You can access EPA's Semiannual Regulatory Agenda and Annual Regulatory Plan in three ways:

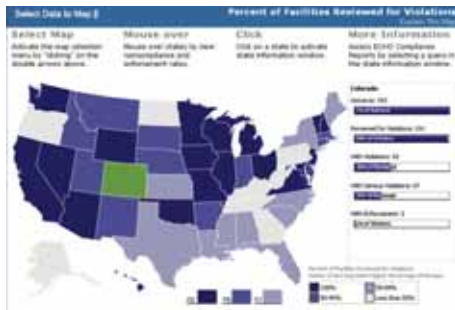
- Download EPA's Agenda and Plan books at [www.epa.gov/lawsregs/search/regagenda.html](http://www.epa.gov/lawsregs/search/regagenda.html)
- Search [RegInfo.gov](http://RegInfo.gov)
- Search [Regulations.gov](http://Regulations.gov)

EPA's Semiannual Regulatory Agenda describes a broad universe of regulatory activities under development or review. Included are regulations and certain major policy documents.

Want to know more about what EPA's Regulatory Plan and Agenda are? Do you wonder why there are different ways to access the Plan and Agenda? Read the Background section at [www.epa.gov/lawsregs/search/regagenda.html](http://www.epa.gov/lawsregs/search/regagenda.html) (bottom of page).



## EPA launches new web tools to inform the public about clean water enforcement



### Interactive web tool allows the public to check water violations in their communities

WASHINGTON (EPA) – The Environmental Protection Agency is launching a new set of web tools, data and interactive maps to inform the public about serious Clean Water Act violations in their communities. Improving water quality is one of EPA Administrator Lisa P. Jackson’s priorities, and in 2009, Jackson directed the agency to develop concrete steps to improve water quality, to better enforce the Clean Water Act, and to use 21st century technology to transform the collection, use and availability of EPA data. The web tools are part of EPA’s Clean Water Act Action Plan, to work with states in ensuring that facilities comply with standards that keep water clean.

“EPA is taking another important step to increase transparency and keep Americans informed about the safety of their local waters,” said Cynthia Giles, assistant administrator for EPA’s Office of Enforcement and Compliance Assurance. “Making this information more accessible and understandable empowers millions of people to press for better compliance and enforcement in their communities.”

The new web page provides interactive information from EPA’s 2008 Annual Noncompliance Report, which pertains to about 40,000 permitted Clean Water Act dischargers across the country. The report



## Letter to the editor

I receive my own copy of *Rural Matters* and have shared this great information with my fellow members of the Town of Saugerties Conservation Advisory Commission. All nine members would like to have their own copy. We have just finished the study and adoption of our Open Space Plan for the town and will be taking the issue of wetland protection. Meanwhile, the town’s planning board is reviewing our comprehensive plan. Between the two commissions, *Rural Matters* Issue 2/6 made an impact. We are discussing a letter to the town board asking for “prohibiting the mining of water for sale.” The current issue gave us much to think about.

Sandra Thorpe,  
Member of the Town of Saugerties Conservation Advisory Commission  
via e-mail

Send letters to [ruralmatters@rcap.org](mailto:ruralmatters@rcap.org)

lists a state-by-state summary data of violations and enforcement responses taken by the states for smaller facilities. The new web page also makes it easy to compare states by compliance rates and enforcement actions taken and provides access to updated State Review Framework (SRF) reports.

Interactive Map for Clean Water Act Annual Noncompliance Report:  
[www.epa-echo.gov/echo/ancr/us](http://www.epa-echo.gov/echo/ancr/us)

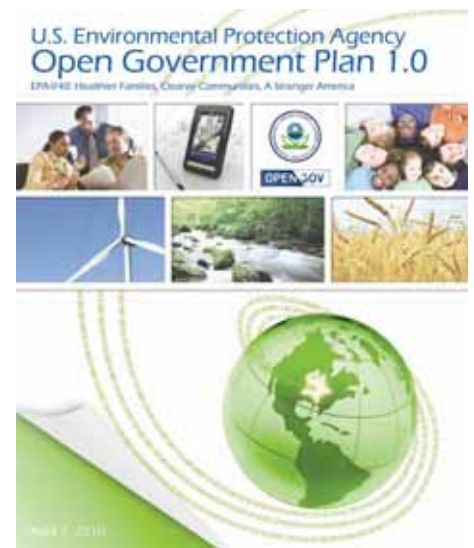
State Review Framework: [www.epa.gov/compliance/state/srf/index.html](http://www.epa.gov/compliance/state/srf/index.html)

Enforcement and Compliance History Online: [www.epa-echo.gov/echo](http://www.epa-echo.gov/echo)

### EPA seeks citizen participation with Open Government Plan

WASHINGTON (EPA) – The U.S. Environmental Protection Agency (EPA) has published the first edition of its Open Government Plan. The plan discusses publishing EPA information online, improving the quality of the information, and creating a culture of open government.

The plan is in response to President Barack Obama’s Open Government Directive, which outlines a plan for breaking down the barriers between the federal government and the public. Federal departments and agencies are putting forward concrete



plans for making operations and data more transparent and expanding opportunities for citizen participation, collaboration, and oversight. These steps will strengthen our democracy and promote efficiency and productivity across the government.

“EPA is very focused on ensuring public access and participation in our activities,” said Linda Travers, principal deputy assistant administrator for EPA’s Office of Environmental Information. “With our new plan, we’re not only meeting the objectives of the directive, but we’re also building on our culture of promoting openness.”

EPA’s flagship initiative, Community Engagement, is an over-arching theme that focuses on reaching out to disadvantaged

communities, expanding public awareness of the rulemaking process, and improving access to environmental information through the development of mobile applications. The agency is focused on working with communities in innovative ways, with the goal of sharing the most effective practices and lessons learned for future efforts.

To address public comments and suggestions, EPA will continue the conversation in a series of blog posts for discussion on the plan and with a video town hall meeting in early summer 2010. EPA plans to review its Open Government Plan every six months as suggestions come in from the public.

More information on Open Government: [www.epa.gov/open](http://www.epa.gov/open)

More information on making public comments: [www.openepa.ideascale.com](http://www.openepa.ideascale.com)

## Revised guidance for the Public Notification (PN) Rule now available

The U.S. Environmental Protection Agency (EPA) has revised and released three guidance documents for the Public Notification (PN) Rule:

- the Revised State Implementation Guidance for the Public Notification (PN) Rule
- the Revised Public Notification Handbook
- the Revised Public Notification Handbook for Transient Noncommunity Systems

These documents provide implementation guidance to assist EPA Regions and states in exercising primary enforcement responsibility (primacy) under the Safe Drinking Water Act (SDWA). They also offer guidance to aid public drinking water systems in complying with the Public Notification (PN) Rule.

Access these documents on EPA's website: [www.epa.gov/safewater/publicnotification/compliancehelp.html](http://www.epa.gov/safewater/publicnotification/compliancehelp.html)

Hard copies are also available at the National Service Center for Environmental Publications (NSCEP). Call NSCEP at 800/490-9198 and refer to document numbers EPA 816-R-09-012, EPA 816-R-09-013, and EPA 816-R-09-009, respectively. ■

## President Obama urges Americans to take action in Earth Day challenge

On Earth Day, President Barack Obama challenged Americans to take action in their homes, communities, schools and businesses to improve the environment in honor of the 40th Anniversary of the holiday, which occurred on April 22. In conjunction with a video message from Obama, the White House unveiled [WhiteHouse.gov/EarthDay](http://WhiteHouse.gov/EarthDay) as a resource guide to promote the fundamentals of Earth Day throughout the year.

The site offers a range of tips on how citizens can make green changes in various aspects of their daily lives, from the home to the workplace to the community. Educational materials and volunteer opportunities are also prominently featured on the new site.

In his video message, Obama invites Americans to renew their individual dedication to a healthier environment: "But even though we've made significant progress, there is much more to do. And as we continue to tackle our environmental challenges, it's clear that change won't come from Washington alone. It will come from Americans across the country who take steps in their own homes and their own communities to make that change happen."

For more on the 40th anniversary of Earth Day and to view Obama's full video message, visit [www.WhiteHouse.gov/earthday](http://www.WhiteHouse.gov/earthday)

## New Appointments



### New CEO for Midwest Assistance Program and new RCAP board member

Marcie McLaughlin began as the new CEO of Midwest Assistance Program (MAP), the Midwest RCAP, in June. As the head of one of RCAP's six regional partners, she will also sit on RCAP's national board of directors.

McLaughlin is a policy expert with 22 years of experience at the local, state and federal levels, working on key issues affecting rural communities.

She most recently served as Director of Constituent Relations for the Rural Policy Research Institute (RUPRI) in Washington, D.C. RUPRI conducts research and facilitates public dialogue to assist policymakers in understanding the impact their programs have on rural communities.

She also served as the founding Executive Director of Minnesota Rural Partners, the state's rural development council, and as the Renville County (Minn.) Commissioner. Her first work in rural community development was writing and managing comprehensive water plans for six Minnesota counties in the early 1990s.

With headquarters in New Prague, Minn., MAP's territory covers nine states. McLaughlin is originally from Minnesota.





**AWWA names  
David LaFrance new  
Executive Director**

David B. LaFrance began as the new Executive Director of the American Water Works Association (AWWA) on May 3. AWWA has more than 60,000 members worldwide and shares knowledge on water resource development, water and wastewater treatment technology, water storage and distribution, and utility management and operations.

AWWA and RCAP committed to collaborate with the signing of a memorandum of understanding in March 2009 with the goals of: cooperating and communicating at the national level and fostering the development of local-level communications; exploring cooperation on joint projects and/or programs; collaborating on the advancement of the industry.

LaFrance, 46, previously served as Director of Finance for Denver Water for 12 years and is an industry leader in the areas of utility economics and water rates. He served as chairman of AWWA's Audit Committee from 2005 to 2008 and its Rates and Charges Subcommittee from 1993 to 2002.

"I look forward to working with AWWA volunteer leaders and staff in fulfilling our mission to protect public health and to provide safe and sufficient water for all," said LaFrance.

Prior to being named Director of Finance in 1998, LaFrance served as Denver Water's Manager of Rate Administration for five years. From 1988 to 1993, he worked as a utility rate economist with the global engineering and consulting firm CH2M Hill in Denver and Portland, Ore., and from 1986-88 he was a natural resources economist with the U.S. Army Corps of Engineers in Portland.

LaFrance earned an MBA in finance from the University of Colorado, Denver in 1992 and a B.S. in economics from Lewis and Clark College in Portland in 1986. ■

## community profile

# Rural revitalization in Donaldson, Minn.



Where: Donaldson, Minn., located in the northwest portion of the state along the Red River Valley

Problem: Untreated sewage discharged into a municipal storm water system which emptied into a highway ditch; rundown housing structures full of vermin

Solution: An affordable pressurized collection system with an extended aeration system for treatment; treated wastewater would return to the ground via a subsurface, rock-bed drain field

The decline of an agricultural economy and the exodus from small towns has left behind dilapidated houses and empty commercial buildings in Donaldson, Minn. With a population of only 57 people and an annual city operating budget of less than \$15,000, the city was at a loss to determine how to eliminate two serious public health hazards – untreated sewage that was being discharged to a road ditch and a half-dozen rundown housing structures infested with vermin.

A municipal storm water system, built in 1936, discharged to a highway ditch west of town. Septic systems installed for indoor plumbing in the 1950s and 1960s let the effluent discharge directly into the city storm water system. A high water table and tight clay soils made drain fields a very expensive option, and they typically performed poorly. The existing system, although effective in getting the wastewater out of town, created a public health violation with untreated sewage draining down the highway ditch.

In addition to the costs of constructing a new wastewater system, the city faced penalties and fines from the Minnesota Pollution Control Agency (MPCA). The city council also identified six properties that were in severe stages of neglect. The U.S. Department of Agriculture's (USDA's) Minnesota Rural Development office (RD) asked for assistance from the Midwest Assistance Program (MAP), Midwest RCAP, to provide technical assistance to the community to correct its wastewater problem.

MAP took steps to rehabilitate the public health threats caused by the untreated sewage by:

- Providing technical assistance to the community to correct its wastewater problem
- Helping the community hire an engineering firm to draft and implement an affordable system
- Assisting in keeping the project on track and within budget by preparing the environmental review and application materials
- Identifying funding for community revitalization
- Helping Donaldson apply to the Minnesota Housing Finance Authority for a \$74,600 grant to acquire and improve several properties that were a public nuisance
- Organizing other entities such as the Stephen Fire Department, the Lions Club, and the local 4-H club to work in partnership to clean up the town

After receiving the first half of the grant money, the council knew that this summer, the town's children would be safer and that some of the signs of a depressed farm economy would be removed. MAP assisted Donaldson in developing the capacity to help itself and to identify affordable solutions to meet its needs. Changes in the market-driven agricultural economy will still affect Donaldson, but the community now has a safe environment with amenities that are affordable for the residents. ■

# EPA takes new approach to protecting drinking water and public health



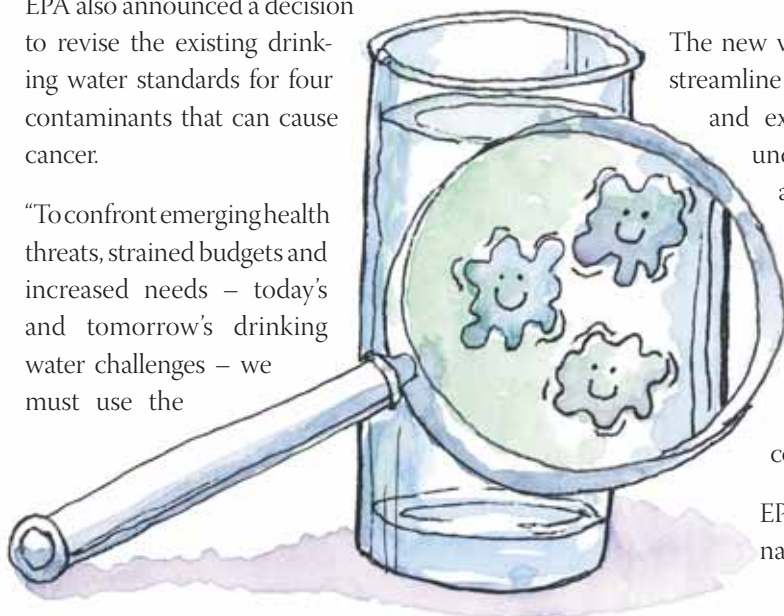
The U.S. Environmental Protection Agency (EPA) is taking a new approach to expand public health protection for drinking water by going beyond the traditional framework that addresses contaminants one at a time.

EPA Administrator Lisa P. Jackson announced March 23 that the agency is developing a broad new set of strategies in this area. According to EPA, its aim is to find solutions that meet the health and economic needs of communities across the country more effectively than the current approach.

EPA also announced a decision to revise the existing drinking water standards for four contaminants that can cause cancer.

“To confront emerging health threats, strained budgets and increased needs – today’s and tomorrow’s drinking water challenges – we must use the

law more effectively and promote new technologies,” said Jackson. “That means fostering innovation that can increase cost-effective protection. It means finding win-win-win solutions for our health, our environment and our economy. And it means broad collaboration. To make our drinking water systems work harder, we have to work smarter.”



The new vision is meant to streamline decision-making and expand protection under existing law and promote cost-effective new technologies to meet the needs of rural, urban and other water-stressed communities.

EPA is initiating a national conversa-

tion that will allow for public input on better ways to address contaminants in groups, improve drinking water technology, and more effectively address potential risks to give Americans greater confidence in the quality of their drinking water.

EPA will focus on four principles that will provide greater protection of drinking water:

1. Address contaminants as a group rather than one at a time so that enhancement of drinking water protection can be achieved cost-effectively.
2. Foster development of new drinking water treatment technologies to address health risks posed by a broad array of contaminants.
3. Use the authority of multiple statutes to help protect drinking water.
4. Partner with states to share more complete data from monitoring at public water systems.

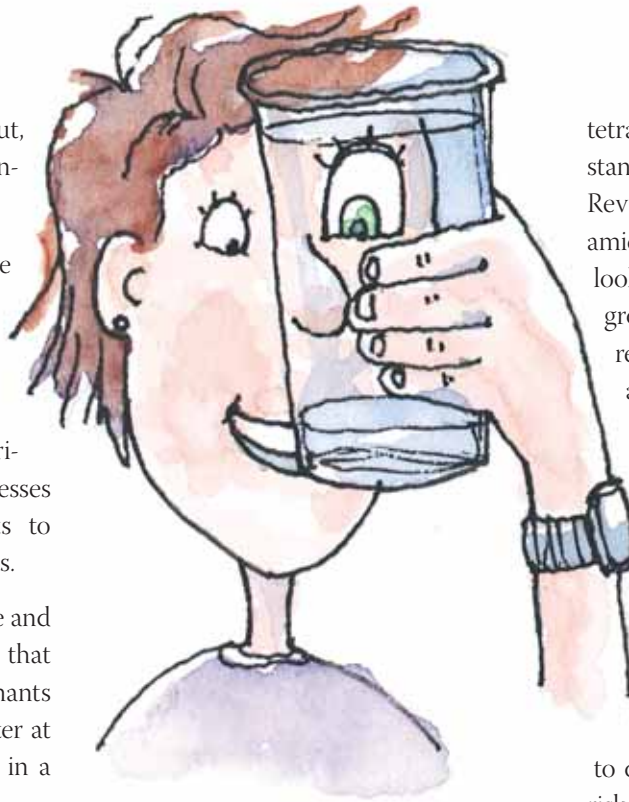
EPA’s current approach to drinking water protection is focused on a detailed assessment of each individual contaminant of concern and can take many years. This approach not only results in slow progress in addressing unregulated contaminants but also fails to take advantage of strategies for enhancing health protection cost-effectively, including advanced treatment technologies that address several contaminants at once. The outlined vision seeks to use existing authorities to achieve greater protection more quickly and cost-effectively.

Over the coming months, EPA will be seeking input from the public and stakeholders, including utilities, rural communities and states, in developing its new approach. Its methods of gathering input will include public meetings, webcasts, the EPA website, and workshops on drinking water technologies.



The ways that EPA plans to gather input, corresponding to the four new principles above, include, among others:

1. Engaging stakeholders and the public to develop technical and procedural approaches to group contaminants, identify treatment technologies, and consider adverse health effects; as appropriate, use an approach that addresses groups of similar contaminants to develop drinking water regulations.
2. Hold field demonstrations of large and small water treatment systems that address a broad suite of contaminants while providing safe drinking water at reasonable and predictable costs in a sustainable way.
3. More fully explore EPA's chemical action plans being developed and implemented to identify synergies that can help to improve and better understand drinking water quality. This can provide the opportunity to regulate contaminants before they get into drinking water.
4. Enhance compilation and analyses of public water systems' information to strengthen the review of potential drinking water public health concerns without additional information-collection burdens and requests on states.



### Stricter standards appropriate for four contaminants

EPA said it also continues to look for opportunities to increase protection using traditional approaches. In the newly finalized review of existing drinking water standards, EPA determined that scientific advances allow for stricter regulations for the carcinogenic compounds tetrachloroethylene, trichloroethylene, acrylamide and epichlorohydrin.

Tetrachloroethylene and trichloroethylene are used in industrial and/or textile processing and can be introduced into drinking water from contaminated ground or surface water sources. Acrylamide and epichlorohydrin are impurities that can be introduced into drinking water during the water treatment process.

Within the next year, EPA will initiate rulemaking efforts to revise the

tetrachloroethylene and trichloroethylene standards using the strategy's framework. Revision of epichlorohydrin and acrylamide standards will follow later. As EPA looks at its new approach to addressing groups, the agency will consider whether revisions to these standards fit into that approach.

### Ongoing regulatory actions

There are ongoing efforts on 14 other drinking water standards. For example, EPA is considering further revisions to the lead and copper rule in order to better address risks to children. EPA also has ongoing health risk assessments or information gathering for chromium, fluoride, arsenic, and atrazine. EPA continues to consider whether to regulate perchlorate. When these efforts are complete, should additional action be required, EPA will move ahead to address any risks in an expedited manner.

EPA said it is critical to enhance drinking water protection to address the growing number of contaminants. By pursuing these sets of goals outlined above, EPA said it seeks to provide more robust public health protection in an open and transparent manner, identify cost- and energy-efficient treatment technologies and to collaborate more broadly with states, the drinking water industry, public health professionals, technology developers and manufacturers and the public to address this challenge.

More information on the strategy: [www.epa.gov/safewater/sdwa/dwstrategy.html](http://www.epa.gov/safewater/sdwa/dwstrategy.html)

More information on the six-year review: [www.epa.gov/safewater/review.html](http://www.epa.gov/safewater/review.html) ■



# Walk This Way: Making the right choices to reduce your water footprint

## Rise & Shine



**TOILET**  
6 gallons/flush



**LOW-FLOW TOILET**  
1.3 gallons/flush



**SHOWER** 10 MINUTES  
3.8 gallons/minute



**LOW-FLOW SHOWER** 10 MINUTES  
2.3 gallons/minute



**FAUCET** 1 MINUTE  
5 gallons/minute



**LOW-FLOW FAUCET** 1 MINUTE  
1.5 gallons/minute



TOTAL: 49 GALLONS

TOTAL: 25.8 GALLONS

AMOUNT SAVED: 23.2 GALLONS

## Breakfast



**COFFEE**  
37 gallons



**TEA**  
9 gallons



**EGGS** TWO OF THEM  
36 gallons/egg



**CEREAL** WITH MILK  
22 gallons



**APPLE**  
18 gallons



**ORANGE**  
13 gallons

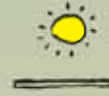


TOTAL: 127 GALLONS

TOTAL: 44 GALLONS

AMOUNT SAVED: 83 GALLONS

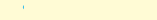
## Lunch



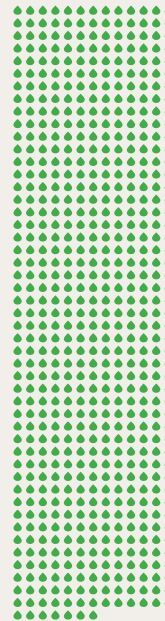
**SODA** 16 OZ. BOTTLE  
33 gallons



**WATER** 16 OZ. GLASS  
.125 gallons



**HAMBURGER**  
634 gallons



**SALAD** 1/2 LB. LETTUCE  
1/2 LB. TOMATO  
1/4 LB. CARROTS  
31 gallons



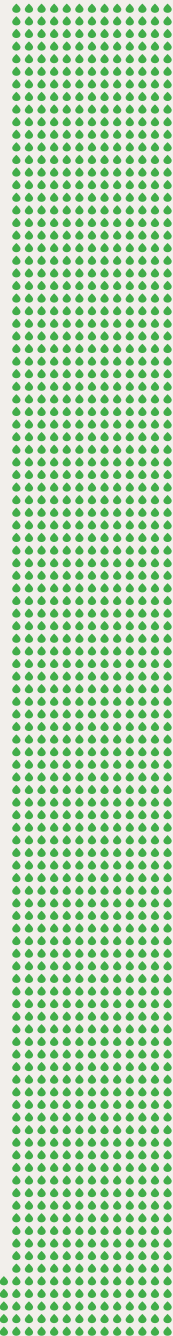
TOTAL: 667 GALLONS

TOTAL: 31.125 GALLONS

AMOUNT SAVED: 635.875 GALLONS

## Dinner

**BEEF** ONE POUND  
1,500 gallons





 = 1 GALLON **DIRECT USE: THE WATER THAT YOU ACTUALLY USE.**

 = 1 GALLON **VIRTUAL USE: THE WATER THAT HELPED MAKE THE THINGS YOU USE.**



## Cleaning Up



## Energy

**WINE** ONE GLASS  
31 gallons



**BREAD** TWO SLICES  
11 gallons/slice

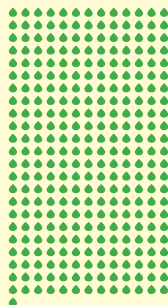


**DISH WASHING**  
BY HAND  
20 gallons



TOTAL: 1573 GALLONS

**CHICKEN** ONE POUND  
287 gallons



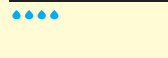
**BEER** ONE PINT  
20 gallons



**BAKED POTATO**  
7 gallons



**DISH WASHING**  
W/ ENERGY STAR DISH WASHER  
4 gallons

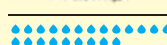


TOTAL: 318 GALLONS

**WASHING MACHINE**  
40 gallons



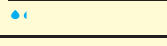
**WASHING MACHINE** ENERGY STAR  
22 gallons



**TOILET**  
6 gallons/flush



**LOW-FLOW TOILET**  
1.3 gallons/flush



**BATH**  
35 gallons



**NO BATH**  
0 gallons

**FAUCET** 1 MINUTE  
5 gallons/minute



**LOW-FLOW FAUCET** 1 MINUTE  
1.5 gallons/minute

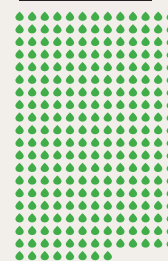


TOTAL: 46 GALLONS

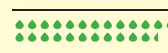
TOTAL: 2.8 GALLONS

AMOUNT SAVED: 43.2 GALLONS

**NUCLEAR**  
255 gallons/day/  
household



**SOLAR**  
24.5 gallons/day/  
household



AMOUNT SAVED:  
230.5 GALLONS

AMOUNT SAVED: 1,255 GALLONS

**TOTAL  
SAVED:  
2,270.75  
GALLONS**

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food&waterwatch

# Sucked Dry: Defending rural water resources from water-bottling giants

By Wenonah Hauter



The bottled water industry has come under attack recently due to global environmental problems associated with its products. There is good reason for this. In addition to being no purer than tap water, bottled water is sold to consumers for thousands of times more than water from the tap and contributes to a host of economic and social problems.

While largely out of sight to most Americans, the detrimental impacts of the bottled water industry are felt more directly in rural communities, where the companies that bottle water for profit trade the promise of new economic benefits for cheap access to a vital - though not always plentiful - natural resource. These tactics are sometimes predatory and often inflict more harm than good on rural communities.

One tangible impact of bottled water operations is their immediate effect on local eco-systems. Pumping water out of local watersheds and shipping it across the globe can threaten the integrity of water supplies, affecting water levels in lakes, streams, rivers, and drinking water wells. This means less water for local residents for household use and for fishing, recreation, wildlife and plants. It can also cause economic problems in areas where the economy relies on the lure of a pristine environment to attract tourists.

### **The case of Mecosta County, Michigan**

These types of environmental degradations are well-known to the community of Mecosta County in Michigan, where residents have been engaged in a decade-long battle against Nestlé Waters North America.

In 2000, news leaked that Nestlé was planning to build a \$100 million Perrier

water-bottling plant (Nestlé purchased the Perrier company in 1992). The company wanted to pump as much as 262.8 million gallons of water a year out of the Sanctuary Springs preserve.

Concerned that such an operation would damage the area's sensitive eco-system, residents mobilized to form Michigan Cit-

izens for Water Conservation (MCWC). Even after residents voted against modifications to local zoning laws that would have allowed Nestlé to build its water-bottling operation, the company maneuvered around this defeat, and a local judge allowed Nestlé to move forward with its plans to draw water from the area.

A series of legal battles ensued. The citizen's group was in and out of court for the next several years. Central to the MCWC's argument against Nestlé were the findings of a hydro-geologist who, after reviewing the company's environmental impact study, found evidence to dispute its claims that bottling would not harm the environment. One court even determined that Nestlé's mining resulted in a drop in the flow of more than 28 percent and in the level of more than two inches of a nearby stream.

While Nestlé continues to pump water from the area, MCWC has been successful in having limits placed on the volume of water the company can extract. In July 2009, an appellate court agreed to an injunction in which the company could pump an average of 218 gallons of water per minute instead of the 400 gallons per minute that the state had granted in the original permit.



## The case of McCloud, California

Resistance to attempts from Nestlé and other companies to bottle water from rural communities is not unique to Michigan. The town of McCloud, Calif., with 1,300 residents, also found itself in conflict over water with Nestlé several years ago.

In the midst of economic challenges, Nestlé negotiated a contract with the McCloud Community Services District for the rights to extract and bottle 500 million gallons of spring water per year from the area and to use unlimited amounts of groundwater in its operations. In exchange, Nestlé promised to pay the town \$350,000 per year and build a water bottling plant that would supposedly employ up to 240 people.

Concerned that the town had accepted Nestlé's offer without input from residents or without regard to the environmental impacts of the facility, some local residents took action. Independent analysis commissioned by the McCloud Watershed Council found that under the proposed deal, Nestlé would pay 3.6 percent less than the rates consumers in McCloud were paying for the same water.

Meanwhile, an independent report found that a bottled water plant would negatively alter the hydrology of the area, forcing water customers to shoulder the costs of drilling deeper wells. It appeared the deal was crafted to profit Nestlé at great cost to area residents.

Resistance toward the proposed plant also mounted when residents learned that the jobs Nestlé promised would not be realized until four to ten years after the plant's construction and would be available for only a few months each year. Some 30 to 40 percent of the jobs that the plant would create would pay only \$10 per hour—hardly the economic boon the company first claimed.

These concerns led to a six-year battle between residents of McCloud and Nestlé, with state Attorney General Edmund Brown eventually weighing in, citing the inadequacy of the company's environmental impact report. In August 2008, Nestlé stepped out of its contract, and, in September of 2009, the proposed deal died altogether when Nestlé announced it would withdraw its proposal altogether.

"Nestlé's departure proves that ordinary citizens can successfully protect their

community resources and way of life," said Debra Anderson, president of the McCloud Watershed Council, in response to Nestlé's retreat from the area.

## When resistance could not hold water (back)

Not all communities have been as successful in defending their natural resources from the bottled water industry's encroachments. In 2008, Nestlé approached officials in Chaffee County, Colo., about pumping 65 million gallons of water per year from an aquifer and shipping it to Denver for bottling under its Arrowhead brand. To obtain access to the water, Nestlé would buy the land where the aquifer was situated.

Community members balked at the proposal, fearing that it would negatively impact the local water supplies of this semi-arid region, especially during times of drought. Many also worried about the potential ramifications of putting more trucks on the area's fragile roads. While the corporation promised new jobs in exchange for water, local residents believed the consequences of the deal would outweigh its benefits.





The controversy quickly gained momentum, eventually drawing scrutiny from water bottling opponents around the country, who viewed the battle in Chaffee County as the latest in a nationwide trend to cheaply extract water from rural areas.

Seeking to mitigate the potential wide-scale ecological damages that the water operation could create, area residents asked Nestlé for \$250,000 to fund a community trust to promote sustainability in the area. The company eventually rejected this proposal.

One financial donation Nestlé was not opposed to accommodating was a \$50,000 grant to the cash-strapped local school system to fund science programs, an arrangement that Chaffee County resident Lee Hart, who chronicled the developments in the local paper, the *Salida Citizen*, would later describe as “blood money they offered for our resource.”

Despite vocal opposition from the community, the Chaffee County Commissioners granted Nestlé its request, only after the company agreed to establish a conservation easement on the land from which it would draw its water. While the easement was not formalized under the agreement, many residents believed it was what tipped the scales to allow Nestlé to bottle water from the area.

Reflecting on Nestlé’s ultimate prevalence in Chaffee County, Hart believes the company took advantage of the many loopholes in the town’s planning regulations.

“This would not have happened in Aspen [Colorado], where they have tougher planning laws,” said Hart. Nor perhaps would Nestlé have been as successful in a community with the financial backing to fight back. “A lawsuit from Nestlé would have drained county resources,” she said.

## A growing backlash

Despite the varied challenges these communities encountered in keeping their



*Photo courtesy of ACDX, source: Wikimedia Commons*

rural water resources in public hands, recent setbacks for the bottled water industry suggest that a backlash against their product is brewing. While the industry’s revenues in the U.S. grew from \$4 billion in 1997 to more than \$11 billion in 2007, this growth trend now appears to be reversing. Bottled water sales started to decline in 2008, and in 2009, Nestlé’s own sales dropped 1.4 percent.

While it’s too early to know if this decline is merely a result of the weak economic climate, the push among many groups to improve both our nation’s drinking water and the infrastructure systems that deliver it may ultimately render bottled water an obsolete fad of late 20th century consumer culture.

Efforts by advocacy groups, such as Food & Water Watch, as well as other groups and organizations, to create sustained, dedicated federal funding to water systems around the U.S. are helping to shift the dialogue around water resources away from the novelty of bottled water and toward the importance of delivering safe, clean, affordable water to all. As success on this front grows, the threat that the industry poses to rural communities subsides.

In the meantime, the experiences of residents in Mecosta, McCloud, and Chafee Counties serve as a reminder to all communities that they can work preemptively to protect their water by determining what local protections exist for these resources and strengthening them before they become vulnerable to the advances of water bottlers.

Residents of rural communities and the groups that represent them can also support state and federal legislation to protect our nation’s groundwater supplies from the excessive removal of water from these unseen, yet vital resources.

For more information on protecting your community’s water resources, visit [www.foodandwaterwatch.org](http://www.foodandwaterwatch.org)

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*Hauter is the Executive Director of Food & Water Watch, a non-profit organization that advocates for policies that will result in healthy, safe food and access to safe and affordable drinking water. ■*





# Mapping Ground Water Rule requirements: Introduction to the rule



*This is the first 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.*

*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.*

*The GWR is flexible in that it requires state involvement to ensure systems are compliant. EPA encourages GWSs to openly discuss GWR requirements with state authorities to ensure compliance with state regulations.*

## What is the purpose of the Ground Water Rule?

The GWR became effective Dec. 1, 2009, and applies to public water systems relying on ground water sources and systems that introduce ground water directly to the distribution system without treatment equivalent to the treatment provided to surface water.

The purpose of the rule is to provide increased protection against microbial pathogens in public water systems that use ground water sources. EPA is particularly concerned about harmful viruses and bacteria. EPA uses fecal contamination as an indicator of the presence of pathogens in the aquifer that may affect public health, including the health of sensitive groups, such as the elderly, pregnant women, children, and individuals with compromised immune systems.

Examples of viral pathogens that have been found in ground water sources include enteric viruses such as Echovirus, Hepatitis A and E, Rotavirus and Noroviruses (i.e., Norwalk-like viruses); and enteric bacterial pathogens like Escherichia coli (including

*continued on next page*

### Glossary of terms

**Ground water system (GWS):** A public water system that relies on ground water sources; any system that mixes surface and ground water if the ground water is added directly to the distribution system and provided to consumers without treatment.

**Community water system (CWS):** A public water system serving at least 15 service connections used by year-round residents or regularly serving at least 25 year-round residents.

**Non-transient non-community water system (NCWS):** A public water system that is not a CWS and that regularly supplies water to at least 25 of the same people at least 6 months per year.

**Transient non-community water system (TNCWS):** A non-community water system that does not regularly serve at least 25 of the same persons over six months of the year.

**Consecutive system:** A public water system that receives some or all of its finished water from one or more wholesale systems.

**Wholesale system:** A public water system that treats source water, as necessary, to produce finished water and then delivers some or all of that water to another public water system.



Photo courtesy of Elba3 Photography

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*E. coli* O157:H7), *Salmonella* species, *Shigella* species, and *Vibrio cholerae*. Ingestion of these and/or other pathogens can cause gastroenteritis or, in certain rare cases, serious illnesses such as meningitis, hepatitis, or myocarditis.

It is estimated that the GWR will prevent approximately 42,000 cases of viral illness and one related death annually.

Like the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) and Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), the GWR highlights the relationship between wholesale and consecutive systems. Some GWR requirements specify that wholesale and consecutive systems communicate with one another in order to comply with the rule.

## Ground Water Systems: Critical deadlines and requirements

The GWR is a targeted, risk-based regulation. The rule relies on four major components that went into effect Dec. 1, 2009, as shown in Table 1.

The requirements that a GWS must follow under the GWR are based on whether the GWS provides at least 4-log treatment, as follows:

continued on next page

**Table 1. GWR Rule Requirement Components**

GWR Component	Description of Requirement Effective December 1, 2009
Source water monitoring	If a system does not provide 4-log treatment and is notified of a total coliform-positive sample collected under the Total Coliform Rule (TCR), it must conduct triggered source water monitoring. These water systems may also be directed by their state to conduct additional and/or assessment monitoring.
Compliance monitoring	Submit written notification <sup>1</sup> to the state if the system intends to provide at least 4-log treatment, and begin conducting compliance monitoring <sup>2</sup> .
Sanitary surveys	Provide the state with any existing information that will enable the state to conduct a sanitary survey.
Corrective action	Complete the task or action required by the state in the event that a) the state identifies a significant deficiency, or b) a triggered source water monitoring sample or one of the five additional ground water source samples tests positive for fecal contamination.

- <sup>1</sup> Written notification must include engineering, operational, or other information that the state requests to evaluate the submission.
- <sup>2</sup> If the system has not submitted written notification and/or received approval from the state by the Dec. 1, 2009, deadline, the system must conduct triggered source water monitoring until the notification is submitted and approved.

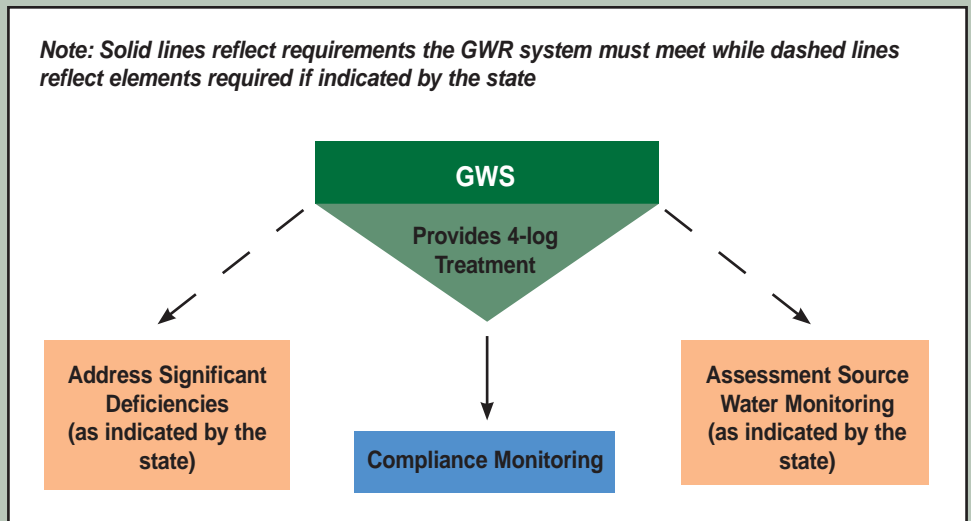


Figure 1. GWR Requirements for Systems Providing 4-log Treatment



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1. GWSs that consistently and reliably provide at least 4-log virus inactivation, removal, or a state-approved combination of these technologies before or at the first customer have the option of conducting compliance monitoring, as illustrated in Figure 1.
2. GWSs that do not provide at least 4-log virus inactivation, removal, or a state-approved combination of these technologies before or at the first customer must comply with the triggered source water monitoring provision of the rule, as illustrated in Figure 2.

There are some GWR requirements that apply to all GWSs and that are not dependent on whether treatment is provided. These include resolving significant deficiencies, completing corrective action, and

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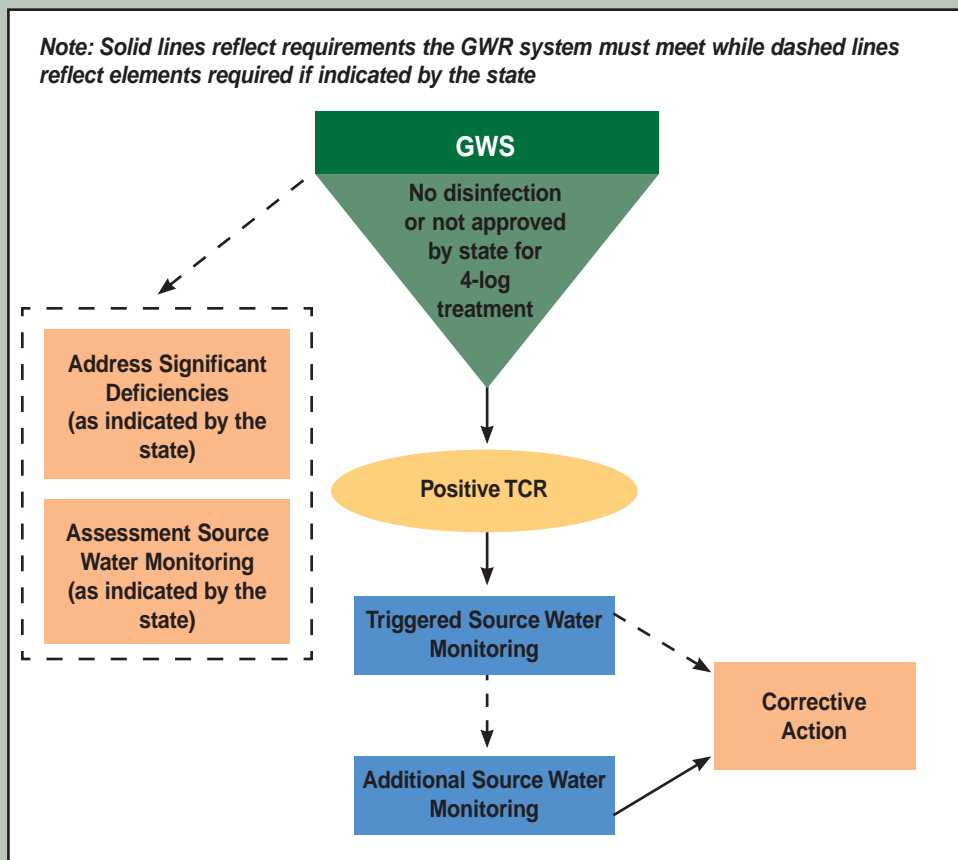


Figure 2. GWR Requirements for Systems Not Providing 4-log Treatment

## Frequently asked questions regarding the Ground Water Rule

**Q:** Does the GWR require all GWSs to disinfect?

**A:** No. The requirements of the rule are based on the level of treatment the GWS provides. If the system reliably provides 4-log treatment of viruses and wants to conduct compliance monitoring, it will have to submit a notice, get approval, and monitor for disinfectant residual at or before the first customer as described in Figure 1. If the system provides less than 4-log treatment of viruses, the GWS will need to comply with the triggered source water monitoring requirements as described in Figure 2.

**Q:** What is the first deadline that GWSs have to comply with?

**A:** GWSs must have informed their primacy agencies if they reliably provide 4-log level of treatment and want to conduct compliance monitoring by Dec. 1, 2009. If they do not meet the specified level of treatment, the system had to begin conducting triggered source water monitoring by the Dec. 1, 2009, deadline. See Table 1 for more detailed information.

A GWS that places a new ground water source in service after Nov. 30, 2009, is not required to meet the triggered source water monitoring requirements because the system provides at least 4-log treatment. The GWS must notify the state in writing that it provides 4-log treatment for the new ground water source and begin compliance monitoring.

**Q:** Are there any tools available to help me calculate whether my water system meets the 4-log treatment requirement?

**A:** Yes. EPA has developed a tool that will assist GWSs in determining whether they meet the 4-log treatment of viruses. It is at [www.epa.gov/safewater/disinfection/gwr/compliancehelp.html](http://www.epa.gov/safewater/disinfection/gwr/compliancehelp.html) (search for Ground Water Rule Contact Time Calculator on that page). States may have also developed their own tools, so check with your primacy agency for more information.





*Photo courtesy of Lauri Murphy Logan*

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follow-up and/or assessment source water monitoring.

Significant deficiencies, follow-up, and/or assessment monitoring are components of the GWR that the state may require at any time and do not have to be a direct result of a total coliform-positive (TC+) or fecal indicator-positive (FI+) sample. A significant deficiency can be identified at any time by the state but is typically found during a sanitary survey.

Follow-up and assessment monitoring consist of state-directed monitoring requirements used to determine the quality of the system's water source. Follow-up monitoring may be done in response to a TC+ sample result, and source water assessment monitoring can be requested at any time at the discretion of the state.

These requirements will be discussed in more detail in the next four articles. ■

## Later in this series of articles

The goal of this series of short articles is to help ground water systems (GWSs) navigate their way through the Ground Water Rule (GWR) requirements. This is the first article in the series in which systems will be introduced to some of the key elements of the rule. A summary of the remaining articles is provided below.

- [Article 2: Triggered source water monitoring](#)  
Triggered source water monitoring applies to systems that do not provide 4-log treatment of viruses and are notified of a total coliform-positive sample while collecting routine samples under the Total Coliform Rule (TCR).
- [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.

## Training opportunities

Currently EPA's headquarters has not scheduled any additional workshops or webcast trainings on the GWR. However, there still may be training events 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 [www.epa.gov/safewater/disinfection/gwr](http://www.epa.gov/safewater/disinfection/gwr).

The next article in this series will cover GWR requirements for triggered and additional source water monitoring.



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