

GRANITE STATE OPERATOR

Summer 2006

GRANITE STATE RURAL WATER ASSOCIATION NEWSLETTER

Come have some fun!

August 24, 2006

Operator Field Day

Mount Sunapee Resort



Designed For:
Water and wastewater operators, board members, managers, owners, support staff, regulators, vendors and service providers to the industry.



9 am - 3 pm / Newbury, NH

Demonstrations

Most are hands-on so
you might get wet!

Exhibits

Contests

Lunch

From the grill for \$10.00
drink, cookies & salad included

Raffles

Please RSVP by August 9th
(for a lunch count)



Who We Are

Since 1982, the staff of Granite State Rural Water Association has supported water and wastewater systems across the state. We provide many services including training, source water protection planning and onsite technical assistance.

Contact us

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www.gsrwa.com

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Annual Membership Meeting begins at 3pm

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Executive Notes

by Jack Shields

As I write this column New Hampshire is entering its fifth day of rain. Climatologists are saying this is a historical storm, comparable to the winter flooding of 1936 and the hurricane of 1938. By the time you read this, the rain event will be over but its effects will be felt for many years. For many water and wastewater systems, the thoughtful consideration of, and the preparation for, possible natural disasters have paid off, many systems are still able to pump potable water to our customers and treat their wastewater. Other systems were not so fortunate. Perhaps it was bad planning, perhaps it was just plain bad luck but there are a quite a few systems that are not operating today, they are under water.

Can we prepare for every eventuality? Well, yes, if we want to spend the money to armor and engineer our entire infrastructure to withstand the great forces of nature. Is it economically feasible? No, we couldn't afford the price to make everything invincible. Most engineers will tell you that there is always some risk of failure in man made structures and as a society we accept that risk because we want the things that make our great life possible to be affordable as well. So we build our infrastructure knowing there is a remote chance of failure, we minimize that chance but it is there nonetheless. And Nature every once in a while comes by and cleans our clock.

Given the above, what then can we do to minimize the effect of disasters? The answer? Plan for them. When is the last time you updated your Emergency Response Plan? Responding to events as they happen is crisis management, not a very fun place to be. Has your system dodged this bullet only to get caught by the next one? Have you thought about the consequences if all your staff were sick of the bird flu? What would happen if you lost power in an ice storm? An earthquake? Have you cross trained your personnel? Are there sufficient resources on hand to deal with most emergencies? The answers to these questions are in your hands.

We cannot control the forces of nature; we can only try to mitigate nature's effects on us through careful plans for our response before and after a disaster. Planning for our emergency response when systems fail is not just prudent and wise, it is, in fact, our duty.

TRAINING EVENTS

Public School Series

Dates & Locations:

7/25/06 in N. Conway

7/27/06 in Exeter

8/03/06 in Hinsdale

Cost: \$40 non-members

\$32 GSRWA members

Hydrant & Valve Maintenance

Date & Location:

9/5/06 in N. Conway

Cost: \$40 non-members

\$32 GSRWA members

Pipe Disinfection & Repairs

Date & Location:

9/12/06 in Chesterfield

Cost: \$40 non-members

\$32 GSRWA members

Line Locating & Leak Detection

Date & Location:

9/19/06 in Woodsville

Cost: \$60 non-members

\$48 GSRWA members

Corrosion Management

Date & Location:

10/4/06 at Cardigan Mtn.

Cost: \$50 non-members

\$40 GSRWA members

Chemical Feed Pumps O&M

Date & Location:

10/16/06 in Meredith

Cost: \$40 non-members

\$32 GSRWA members

Basic Electrical Workshop

Date & Location:

10/23/06 in Lebanon

Cost: \$60 non-members

\$48 GSRWA members

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Quiz Corner

WORD SEARCH By Vinnie Melendez

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E	B	R	Q	A	I	S	E	N	A	F	L	O	T	I	A
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DISTRIBUTION HEALTH

By Scott Clang

It's likely that by now that you've probably heard many reasons on how and why it's important to maintain a healthy drinking water distribution system. Let's compare it to something that hits home and is equally significant, the state of your health!

Have you been told you have high cholesterol or blood pressure? It's all about inflamed arteries causing poor circulation. One of the causes of poor circulation is oxidation or rust. When you cut an apple in half and it turns brown, that's oxidation. That can happen inside your arteries too, leading to inflammation. Poor circulation can be associated with high blood pressure, stress and diets of fast, fatty foods as well as a lack of exercise. I can relate! This can all lead to clogged arteries. (Esquire 5/06)

This same process goes on in your distribution system depending on the water quality and annual maintenance you put into your distribution

system. Deposits and oxidation processes lead to tuberculated water lines, bio-films, bacterial activity and corrosion or thinning of pipe wall thicknesses. These water main "stresses" lead to breaks, poor water quality, friction losses and ultimately poor circulation which for a water system equals low pressure and low flow. Just as your physician monitors your blood pressure and heart rate, you as a water operator must perform continuous check ups on the health of your distribution network to maintain a properly operating and sanitary drinking water system. The operator's function as a "Water Doctor" is to track system indicators such as leaks, pressure, bacterial activity, pH, turbidity and temperature just to name a few.

The Initial Distribution System Evaluation (IDSE) is a component of the Stage 2 Disinfection By Product Rule, (Stage 2 DBPR). The rule was finalized by the USEPA in January 2006. Stage 2 DBPR applies to all community and non-transient, non-community water systems that use a primary or residual disinfectant other than ultraviolet (some systems may be eligible for a system-specific waiver). The Stage 2 DBPR requires you to monitor and assess more parts of your distribution system than ever before to prevent or reduce existing total

trihalomethanes (THM) and haloacetic acid (HAA5) formations in systems with surface water sources or systems with groundwater wells that are under the influence of surface water. These contaminants are caused by a reaction of naturally occurring organic matter and chlorine. This initial monitoring and future rule changes will determine monitoring frequency and how you will reduce or maintain those contaminant levels to comply with state and federal requirements.

Distribution system efficiency is very important to the operation of your water system. To ensure that a proper minimum water pressure can be achieved at all operating and flow conditions, perform a semi-annual hydrant-flushing program.

So you see, your body's circulation system has some features in common with your drinking water system, both deal with a fluid, both control flow and pressure and both have a need to keep the lines clean. So Water Doctor, keep both your systems healthy and working properly to keep them serving you well into the future. By the way, water is cholesterol free, has no calories and contains no saturated fat. So drink up... it's Quality on Tap!

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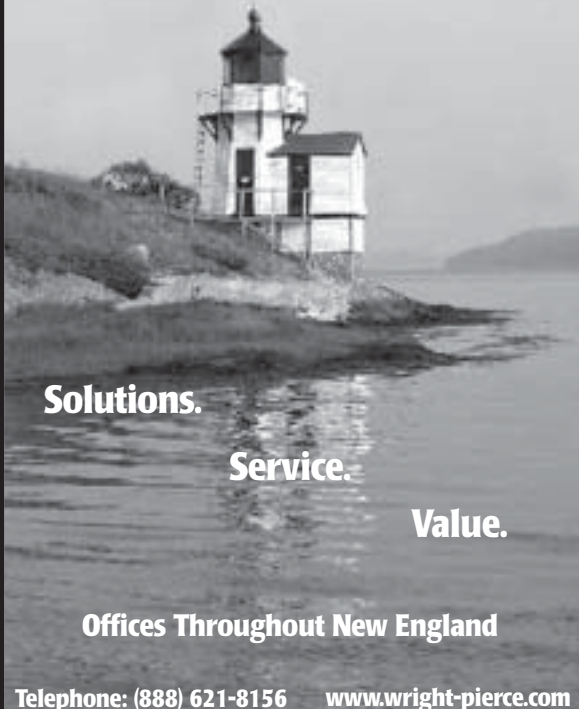
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WHAT IS SOURCE WATER PROTECTION?

By Heidi Brannon

Whether a public water system relies on groundwater or surface water, protection of a water system's source is crucial.

Source water is the untreated water from streams, lakes, rivers and groundwater that communities rely on to supply their drinking water. By protecting source waters, rural and small communities can reduce or eliminate potential contamination risks to their drinking water supplies.

Depending on the water source, a source water protection plan can encompass an entire watershed for surface water sources or focus on a wellhead protection area (WHPA), which is the surface area under which groundwater is drawn into a well. No matter what the source, developing a source water protection plan helps communities understand the inter-relationship between a single drinking water source, other source waters, the effects of land uses and potential sources of contamination; both

natural and human induced, that occur on the landscape.

GSRWA's philosophy behind source water protection is to protect water quality at the local level through community involvement and stewardship. Every community's source water protection needs are different and we work with local committees to identify potential water quality threats, develop management recommendations, write a plan and help implement one recommended management activity.

GSRWA staff has successfully helped communities protect their drinking water sources since 1996 by assisting communities with plan development,

grant applications, public education and outreach programs, land acquisition, developing protective zoning ordinances and many other activities. For more information about our Source Water Protection Program, contact us at info@gsrwa.com or (603) 753-4055.



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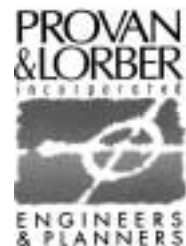
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2006 DRINKING WATER WEEK FESTIVAL

By Donny Boynton

The annual drinking water festival was held on May 9th in Keene NH. More than 500 4th and 5th grade students participated in the final week of statewide competition with science projects being submitted from schools all over NH. Five cities and towns participated in the water tasting contest. Hinsdale Water Department got the most votes for the best tasting water, with Merrimack, Concord, and Keene following. The science projects were very impressive. There were projects that dealt with lakes and dams, oil pollution in water and how it affects wildlife, and projects explaining hydrological cycles and all sorts of subjects on environmental awareness. I was very impressed when the fourth graders presented their particular projects as they all spoke of their hypothesis and conclusions. When I was in school we had

those words on a vocabulary test. This festival is an opportunity for many agencies to present what they are and how they fit into the big picture. Wastewater division had a booth to view live microorganisms, Source Water Protection had demonstrations on erosion and watershed management, Dams Operation and Maintenance illustrated their role, Water Supply had a presentation and Fish and Game brought in May aquatic insects as they hatched. We all knew these, black flies! The annual drinking water week is sponsored throughout the United States, but only NH has adopted it into the school programs for 4th and 5th graders. It was a very worthwhile event. The knowledge that these students have and how they are being taught will surely impact our future in a positive way.

MEMBERS & ASSOCIATE MEMBERS

New Members:
March 10 - June 7, 2006

Systems

Ayers Lake Farm Campground
 Barrington Oaks Cooperative
 Emerald Acres Cooperative
 Front Well System
 Hancock Water Works
 Hill Water Works
 Indian River School
 Inn at East Hill Farm
 Lakeside at Winnepesaukee Assn.
 Mascoma Valley Reg. High School
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