



AQUA TALK



Colorado Department
of Public Health
and Environment

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A newsletter from the Drinking Water Program of the Water Quality Control Division

Happy New Year!

January is a great time to make resolutions – will drinking water quality be on your list? This issue of Aqua Talk highlights just a few of the individuals and water systems that have been recently recognized for their achievements in the drinking water industry in Colorado.



INSIDE THIS ISSUE

Acute Health Risks...	1
Message from the Drinking Water Program Manager	2
Congratulations to ...	3
Environmental Leadership Program...	3
Colorado Drinking Water Excellence Program	4
Drinking Water Penalty Assessments	5
Ask Aqua Man	5
Coming Down the Pipe	6
Drinking Water, Compliance Assurance and Data Management Section Contact List	7

Acute Health Risks – Tis the Season for Pipe Breaks

by Jeff Lawrence



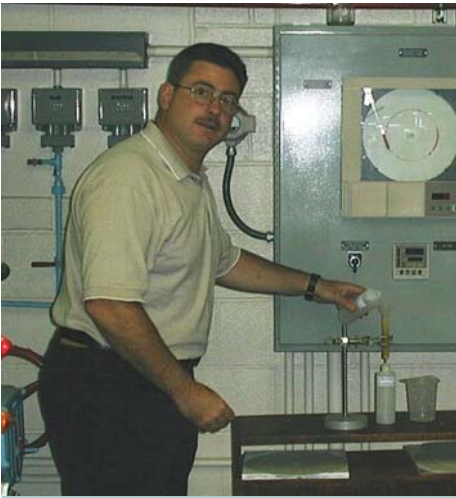
Distribution systems span almost 1 million miles in the United States (Grigg, 2005b) and as the U.S. population grows and communities expand, 13,200 miles of new pipes are installed each year (Kirmeyer et al., 1994). Because distribution systems represent the vast majority of physical infrastructure for water supplies, they constitute the primary management challenge from both an operational and public health standpoint. Furthermore, their repair and replacement represent an enormous financial liability; EPA estimates the 20-year water transmission and distribution needs of the country to be \$183.6 billion (EPA, 2005a).

Predicting when acute health risks may arise at your public water system may be impossible, and is often looked upon as somewhat pessimistic. Planning for these situations is imperative for all public water systems, from the large community systems to the small transient systems. In our last newsletter we published an article entitled “Acute Health Risks – Can it happen to you?” One of the events described that can result in acute health threats and subsequent boil or bottle water orders are main breaks. Last winter from January 1 – March 30, we convened the Acute Team to respond to such threats on fifteen (15) separate occasions, ten (10) of which were because of line breaks within the water systems’ distribution system. Six (6) of these responses resulted in boil or bottle water orders being issued to the water system for an average of 5.5 days. In comparison to the other acute health threats, pipe breaks are typically resolved quickly; however, the potential impacts to the water system and its customers are still substantial. While the harshness of our Colorado winter may have had some impact on the large number of pipe breaks last year, several articles published nationally pointed to similar events occurring throughout the country. The primary conclusion from these articles was an aging infrastructure. The type and age of the pipes that make up water distribution systems range from cast iron pipes installed during the late 19th century to ductile iron pipe and finally to plastic pipes introduced in the 1970s and beyond. Most water systems and distribution pipes will be reaching the end of their expected life spans in the next 30 years (although actual life spans may be longer depending on utility practices and local conditions). Thus, the water industry is entering an era where it will have to make substantial investments in pipe assessment, repair and replacement. Thus, we recommend that public water systems

- characterize the age of their distribution system;
- identify vulnerable areas;
- establish repair and replacement programs;
- establish a leak monitoring program; and,
- develop an emergency response plan.



Message from the Drinking Water Program Manager



Ron Falco, P.E.,
Drinking Water Program Manager

Hello Everyone,

I am pleased that the Drinking Water Program is sending out another newsletter and am announcing that its frequency will increase to quarterly in 2008. I view this newsletter as an important vehicle for the program to communicate with public water systems and operators and as a gateway for you to work with us in understanding regulatory requirements and how to comply with them, and to learn about our numerous assistance services.

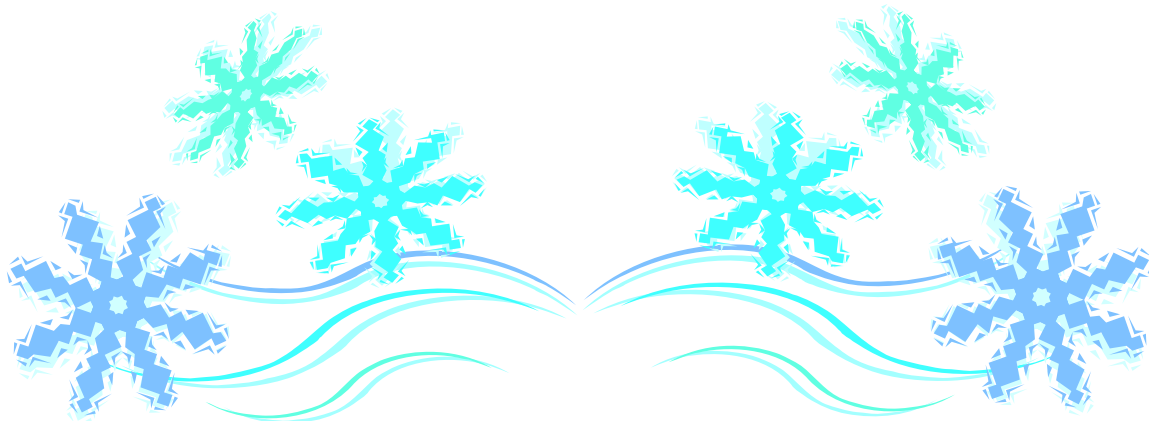
I am proud that two of our employees recently won department-level awards. (See subsequent article in this newsletter.) Additionally, our Outreach and Project Assistance Unit received a Drinking Water State Revolving Fund (DWSRF) Award for Sustainable Public Health Protection from EPA. The DWSRF provides funds and support to communities to help with necessary drinking water infrastructure. We received the award in partnership with the Colorado Water Resources and Power Development Authority, and the Department of Local Affairs, because of our collective creativity in managing the DWSRF program in Colorado. Specifically,

Colorado was recognized for our aggressive fund leveraging, creating a disadvantaged community program, that lends money to economically disadvantaged water systems at rates as low as zero percent interest over an extended 30-year financing term, and creative use of program set-aside funds. EPA cited developing the radionuclide assistance project, assisting systems with developing source water protection plans, and creating a Drinking Water Excellence Program as examples of creatively using the set-aside funds for sustainable public health protection.

Thank you for your daily efforts to provide safe drinking water to the public.

Sincerely,

A handwritten signature in black ink, appearing to be 'R Falco', written over a stylized illustration of a hand holding a pen.





to Glenn Bodnar and Carolyn Schachterle!

by Ron Falco



Carolyn Schachterle, a 21-year department employee, has played a crucial part in assisting small communities with funding to ensure protection of public health and water quality. The loans and grants that Carolyn manages assist small communities with infrastructure-related improvements, bringing drinking water and wastewater treatment plants into compliance. Her guidance and problem-solving skills are prime examples of her commitment to staff and the external customers she supports. During a time when her work unit was understaffed and faced with an increased work load, she took on many of the responsibilities left behind by outgoing staff and the challenges of training new staff. Carolyn's commitment to achieving financial, unit, program, division and department goals is exemplary and was recognized by the department with the Employee of the Year Award for all of the department!!



(From left) Carolyn Schachterle, Outreach and Project Assistance Unit, and Glenn Bodnar, Denver Drinking Water Engineering



Glenn Bodnar received the Frank Johnson Award for exemplary contributions to environmental improvement and protection. Glenn, a 31-year department employee, leads our Drinking Water Acute Team which responds to public health risks that occur when a water system experiences an event that may expose the public to harmful pathogens or chemicals. These events can have serious consequences if not addressed quickly or appropriately, i.e., a waterborne disease outbreak. A bottled water or boiled water advisory to the public is often needed. Glenn provides technical assistance on a 24/7 basis to the water system personnel to help them make the necessary repairs and/or improvements to restore normalcy in the community. Last year, the team responded to 47 acute public health risk events. Glenn's effective management of these events made him a stellar candidate for the award.



Environmental Leadership Program Recognizes Colorado Public Water Systems



by Dean Vlachos

The Colorado Department of Public Health and Environment Environmental Leadership Program is proud to recognize nine public water systems for improving water quality and/or reducing energy usage at their respective water treatment facilities. The systems were nominated for the Bronze Environmental Achievement Award by the Drinking Water Excellence Program and received this award at the Oct. 3, 2007, annual Environmental Leadership Awards Recognition Event.

Six facilities (Aurora Water - Griswold and Wemlinger Plants, City of Golden, Fort Collins Utilities, Montezuma Water Company and Ute Water Conservancy District) were recognized for their participation in the AWWA Partnership for Safe Water and their achievement of the Phase III level for process optimization to reduce the risk of microbial exposure. Phase III requires significant commitment, data collection effort, self-assessment and peer review to customize performance improvements with limited capital spending. (Continued on Page 4)



Environmental Leadership Program Recognizes Colorado Public Water Systems



by Dean Vlachos (Continued from Page 3)

Three other public water systems were recognized for other improvements to water quality and the environment. Denver Water received the Bronze Award for the successful operation of the Denver Water Recycling Plant. This plant serves a dedicated recycled water distribution system throughout Denver for large irrigation customers (parks and golf courses) and industrial customers (power plants). The city of Grand Junction and the city of Westminster water treatment facilities each received the award for reducing energy usage (and associated cost) via management of usage demand and improvements in pump control and efficiency.



Colorado Drinking Water Excellence Program

by Dean Vlachos

The Colorado Drinking Water Excellence Program is an exciting new statewide initiative designed to continuously improve public water system performance and public health protection in Colorado through

1. creating a definition of excellent performance for Colorado community surface water systems;
2. recognizing and awarding excellent performance from public water systems and individuals; and,
3. providing advanced training opportunities in excellent performance.

Recognition and awards will be given to those serving in various areas of public drinking water protection including water treatment, distribution, source water management and emergency preparedness.

Advanced training opportunities are scheduled to begin in the winter of 2008 and are initially targeted to Colorado Class A and B certified water treatment plant operators desiring to further their knowledge in process control, optimization and performance evaluations. More information on the training workshops, including registration, can be found at www.DWEPtraining.org. Later in 2008, the training curriculum will be expanded to include water managers, utilities directors and other town administrators by offering a course on Leadership in the Drinking Water Community.

The Colorado Drinking Water Excellence Program is currently registering interested water systems to commit to the program via a newly launched Web page on the Water Quality Control Division Web site (<http://www.cdphe.state.co.us/wq/drinkingwater/ExcellenceProgram.html>). Community surface water systems are encouraged to respond to the online questionnaire for their definitions of excellence and corresponding training needs.

The Colorado Drinking Water Excellence Program announces two new advanced training workshops for water treatment operators. The free workshops are unique in the industry and include interactive, hands-on training modules that will be facilitated at water treatment plants.



Workshop dates

- Advanced Process Diagnostics for Performance Evaluation
 - city of Golden water treatment plant February 4-5, 2008
 - Ute water treatment plant (Grand Junction) April 8-9, 2008
- Advanced Process Control and Optimization
 - city of Golden water treatment plant February 26-27, 2008
 - Ute Water (Grand Junction) April 29-30, 2008



See Web site www.DWEPtraining.org for additional information, including instructor bios, detailed curriculum and registration instructions.



\$\$ Drinking Water Penalty Assessments \$\$



Drinking Water penalties are not the most pleasant subject, but they are important to discuss. The Water Quality Control Division has authority from §25-1-114.1, C.R.S. to assess administrative penalties for failures to comply with the *Colorado Primary Drinking Water Regulations*. The division routinely includes penalties in Enforcement Orders to public water systems that have failed to prepare and/or deliver their Consumer Confidence Report for two years in a row. The division also includes penalties in Enforcement Orders for most public water systems with demonstrated histories of failing to monitor or report. Such penalties have ranged from several hundred dollars to several thousand dollars, depending on the types and frequency of the violations. Knowing that drinking water is safe to drink is just as important as safe drinking water. If proper monitoring and reporting are not done, safe drinking water cannot be assured and the public cannot be informed about its water supply.



Ask Aqua Man



Dear Aqua Man,

I received the state's monitoring schedule for my surface water community drinking water system and it shows that I have to monitor for volatile organic chemicals (VOCs) in 2008. I'm sure we just did that recently. Is this an error?

-Bea Sure

Dear Bea Sure,

Your schedule is correct. Previously, some water systems were allowed to reduce VOC monitoring to once per three years. The state has discovered that this is not appropriate according to the EPA's requirements for community systems using surface water or ground water under the influence of surface water. Therefore, these systems are required to monitor for VOCs once per year going forward.

Dear Aqua Man,

I thought total trihalomethanes (TTHM) and haloacetic acids (HAA5) had to be tested in August if we are on an annual schedule. Last year my state-issued monitoring schedule said August, but this year it says July. Has this requirement changed?

-Max Rez

Dear Max Rez,



The regulations require that systems on annual schedules must collect TTHM and HAA5 samples in the month of warmest water temperature. The third calendar quarter (July, August and September) is the period of warmest water temperature. The state has scheduled some of these groundwater systems to conduct sampling in July and some in August. This will help balance the state's, operators' and laboratories' workloads. If your system is scheduled for July and you believe that a July sample will be inaccurate due to significantly lower water temperature, please contact the state to request a change.



Coming Down the Pipe... News Alerts for the Drinking Water Community

- Monitoring data submission change. The preferred method for submittal is via U.S. mail. For time-sensitive situations, monitoring forms may be submitted to the Drinking Water e-mail box at cdphe.drinkingwater@cdphe.state.co.us or via facsimile to 303-758-1398. All documents must be signed by the lab or person who conducted the analysis. If submitting by email, data must be a .pdf file format in order to be accepted.
- Monitoring Schedules (aka Sampling Schedules or Drinking Water Requirements) for calendar year 2008 were sent to all public water systems in December 2007. These schedules were sent to the person listed as the administrative contact for the water system in our SDWIS database. Any other interested parties (i.e., operators, labs, etc.) can request extra copies by calling the Drinking Water Compliance Assurance Unit at 303-692-3541 or 303-692-3556.
- Stakeholder meetings for revision of Article 12 (Hazardous Cross-Connections) of the Colorado Primary Drinking Water Regulations are in progress. Please contact Jorge Delgado at 303-692-3511 if you or someone from your water system is interested in participating in the meetings.



- The Drinking Water Program's homepage Web address is www.cdphe.state.co.us/wq/drinkingwater/index.html.
- TRAINING OPPORTUNITIES! Please visit the division's Web site at www.cdphe.state.co.us/wq/drinkingwater/Training.html.
- To access Aqua Talk online www.cdphe.state.co.us/wq/drinkingwater/QuickLinks.html.



MyTMFTrainer Available for Water System Self-Assessments



Go to MyTMFTrainer.org to complete an on line assessment of the technical, managerial, and financial capacity of your water system.

Then use the tools resources to find solutions to those areas you need to improve.

MyTMFTrainer.org

**For more information,
contact Jon DeBoer at
303-692-3607**



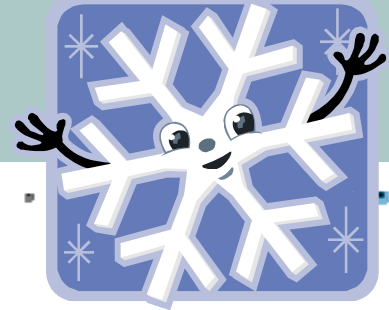
**Colorado Department
of Public Health
and Environment**

Drinking Water, Compliance Assurance and Data Management Section

Contact Information for Individual Drinking Water Rules

Fax: 303-782-0390 or 303-758-1398

1-800-886-7689 (ext.=last four digits of individuals direct line)



Disinfectant/Disinfection Byproducts Rule

Stage 1 Rule

Emily Clark (rule manager) 303-692-3502

Stage 2 Early Implementation

Armando Herald (Early Implementation) 303-692-3619

Total Coliform Rule & Consumer Confidence Report Rule

Cristin Jones (rule manager) 303-692-3308

Surface Water Treatment Rules

SWTRs, Microscopic Particulate Analysis (MPA) & Filter Backwash Recycle Rule

Serenity Valdez (rule manager) 303-692-3519

Long Term 2 Enhanced Surface Water Treatment Rule Early Implementation

Armando Herald (Early Implementation) 303-692-3619

Lead & Copper Rule & Organic Chemical Rule

Lauren Worley (rule manager) 303-692-3547

Radionuclide Rule

Jacalyn Whelan Roberts (rule manager) 303-692-3617

Inorganic Chemical Rule (including arsenic, fluoride, nitrate and nitrite)

Serenity Valdez (rule manager) 303-692-3519

Ground Water Rule

Bryan Pickle (rule manager) 303-692-3527

Monitoring and Reporting (M&R)

M&R for organic, inorganic, nitrate and nitrite

Desiree Griffin (compliance technician) 303-692-3538

M&R for D/DBP, turbidity and total coliform

Jacob Duvall (compliance technician) 303-692-3318

SDWIS Development & Unregulated Contaminant Monitoring

David R. Rogers 303-692-3535

New Systems, SDWIS Updates (changes in source, treatment, contact info, etc.)

Erica Kannely 303-692-3543

General Assistance (including forms, schedules & other printed materials)

303-692-3556 or 303-692-3541

Inquiries on public notice requirements should be directed to the appropriate rule manager listed above.



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303-692-3500

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Internet address <http://www.cdphe.state.co.us/>

Division Internet address <http://www.cdphe.state.co.us/wq/index.html>

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Drinking Water Program

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