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## When the river runs orange: Gold King Mine spill response

by Greg Naugle, field services section and David Dani, local assistance unit

August 5, 2015, started like any other day. The Animas River began to turn orange from the sudden release of three million gallons of mine drainage from the Gold King Mine. The Water Quality Control Division responded quickly by sending a team to work with the local health department, local emergency responders and drinking water systems located along the Animas River from the town of Silverton to the state line. Division staff assisted with a number of activities to answer time critical questions such as:



Sampling the Gold King Mine.

- Is drinking water safe to drink?
- When can agricultural producers resume irrigating their fields?
- When can ranchers use river water to water their livestock?
- When can people recreate and fish on the river?

Staff assisted with a number of efforts, initially notifying downstream public water systems of the release. Other efforts included river sampling, entry point sampling at public drinking water systems and even sediment sampling. Additional staff assisted with other aspects of

(Continued on page 3)

# Implementing public notice requirements associated with sanitary surveys

by Ron Falco, P.E., program manager

Sanitary surveys play a vital public health protection role in implementing the Safe Drinking Water Act. While on site, staff with the Colorado Department of Public Health and Environment works with water supplier personnel to evaluate water sources, treatment, distribution, storage, pumps, monitoring, system management and operator certification. Department staff reviews compliance with the Colorado Primary Drinking Water Regulations and the Water and Wastewater Facility Operators Certification Requirements, Regulations 11 and 100 respectively. We have helped water suppliers in Colorado address hundreds of significant deficiencies that could jeopardize water quality.

For the past several years we have been identifying and discussing violations of Regulations 11 and 100 during sanitary survey site visits. These violations are reported in the sanitary survey letter delivered to the administrative contact at each public water system. All violations require public notice. The public's right to know about drinking water violations has been part of by the act since congressional re-authorization in 1996.

Due to long-standing software and staffing constraints, the department has not cataloged and managed field-identified violations in the state's database. Therefore, the public notice requirements were not noted in the sanitary survey letters or tracked. Field-identified violations were not included when the department issued the draft annual consumer confidence report each year. Beginning on January 1, 2016 the public notice requirements will be included in the sanitary survey letters and they will appear automatically in the draft consumer confidence report for the year following the sanitary survey, assuming that they are Tier 3 violations, which covers most field-identified violation. A small but important number of field-identified violations are more serious and require tier 1 or tier 2 public notice. These violations include not properly disinfecting the water, not having adequate filtration (for those required to filter), etc. These serious issues must be fixed as quickly as possible and the public must



be notified in accordance with Regulation 11. For tier 2 violations this typically means notice within 30 days.

As always, the department will help water suppliers fix problems identified during sanitary surveys and also assist with understanding and complying with public notice requirements.

Please contact the following department staff with questions:

- For questions about sanitary survey activities and communications, Tyson Ingels, lead drinking water engineer, at 303-692-3002 or [tyson.ingels@state.co.us](mailto:tyson.ingels@state.co.us).
- For questions about violation tracking and public notice, Nicole Graziano, technical and regulatory implementation and coordination unit manager at 303-692-3258 or [nicole.graziano@state.co.us](mailto:nicole.graziano@state.co.us)
- You can also request free coaching assistance at the following link: <https://www.colorado.gov/pacific/cdphe/drinking-water-training-opportunities>.

To download the full text and details of the Regulation 11 requirements, please visit <https://www.colorado.gov/pacific/cdphe/water-quality-control-commission-regulations>. To be added to our email list for announcements of upcoming training opportunities, please register: <http://eepurl.com/bq-NZv>

Handwritten signature of Ron Falco.

# Gold King Mine spill response

*(Continued from page 1)*

the emergency, such as advising local partners about water quality issues, providing communication support, assisting with numerous media inquiries and meeting requests as well as assessing water treatment at the mine site. Staff in Denver assisted by working with the state laboratory to have sample analyses expedited, making sure sample bottles and field supplies were ordered and shipped to Durango and making data available to the public as quickly as possible via the department's website.

Teamwork, training and rapid response allowed the division to effectively respond to this disaster. But the Gold King Mine release reminds us that emergencies come in all shapes and sizes. Water systems in Colorado need to be prepared to respond to a number of issues ranging from

droughts to floods to spills. Water system administrators and operators are not alone when asking:

- What in my system is vulnerable and what can I do now to help protect it?
- How would my system respond to a water shortage or outage from an emergency and do we have an emergency response plan in place?
- Are we able to notify customers quickly during a drinking water emergency?
- What if the emergency is too big for us to handle?

Together, the division and Colorado's Water and Wastewater Agency Response Network have tools and templates to help you answer these questions. These resources can all be found on the CoWARN website at [www.cowarn.org](http://www.cowarn.org).



Gold King Mine spill response team receiving instructions.

# Lead and copper rule

by Nicole Graziano, P.E., drinking water compliance assurance section

In 1991 the lead and copper rule became effective and required all community and non-transient non-community water systems to monitor for lead and copper at a specified number of taps within homes and buildings served by that water system. The rule established treatment technique or action level requirements that included corrosion control treatment, source water treatment, lead service line replacement and public education. The action level requirements are triggered when the 90th percentile of the lead or copper tap sample results collected during the monitoring period is greater than the lead or copper action level. The action level for lead is 0.015 mg/L and the action level for copper is 1.3 mg/L.



Lead and copper can be present in drinking water from distribution system piping and/or household plumbing materials, such as pipes or faucets, and can be affected by water quality characteristics. Water quality characteristics that have the greatest effect on lead and copper corrosion are pH, dissolved inorganic carbonate, buffer intensity, dissolved oxygen, disinfectant residual and alkalinity. Drinking water that is corrosive may promote leaching of lead and/or copper from piping and/or plumbing materials into drinking water.

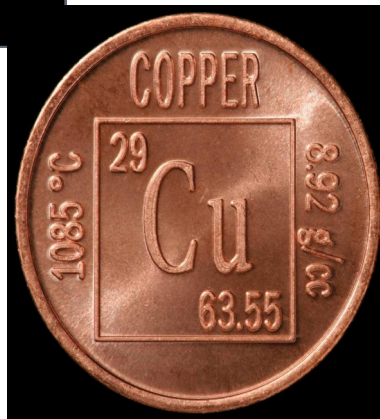
The rule requires that all water systems must recommend one or more corrosion control treatment methods that will minimize lead and copper concentrations at the consumer's taps no later than six months after the end of the monitoring period during which the lead and/or copper action level was exceeded. Drinking water systems can either:

1. Use the EPA's Revised Guidance Manual for Selecting Lead and Copper Control Strategies to select an effective treatment strategy for

controlling lead and copper. The guidance document is available on the agency's website at [www.water.epa.gov/drink/info/lead/index.cfm](http://www.water.epa.gov/drink/info/lead/index.cfm).

2. Conduct a corrosion control study that evaluates the effectiveness of alkalinity and pH adjustment, calcium hardness adjustment and the addition of a phosphate or silicate based corrosion inhibitor. The study must be conducted by evaluating existing treatment at other similar water systems, or through pipe rig/loop tests, metal coupon tests or partial system tests, and must fully evaluate all the above listed treatment techniques.

The recommended corrosion control treatment method(s) or a corrosion control study plan must be submitted to the department for review and approval. The department will review the recommended treatment strategy or corrosion



control study plan. If acceptable, the department will issue an approval letter for the designated optimal corrosion control treatment or the corrosion control study plans, whichever is applicable. If the water system is designated with optimal corrosion control treatment, the plans and

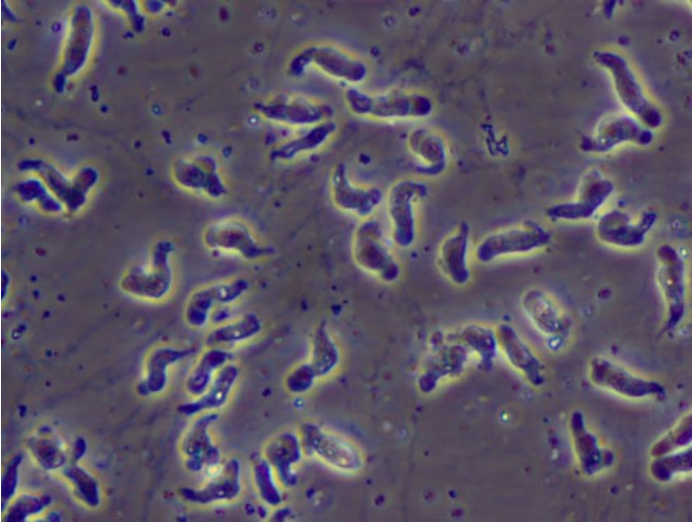
specifications for the treatment system must also be submitted to the department for review and approval. The treatment system must be installed and properly operated no later than 24 months after designation of the optimal corrosion control treatment.

If the water system performs a corrosion control study, the study must be completed and submitted to the department within 18 months of the study approval letter. The department will review the study and recommended optimal corrosion control

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# Brain-eating amoeba contamination can occur in drinking water

by Nicole Graziano, P.E., drinking water compliance assurance section



A wet mount of *Naegleria fowleri* trophozoites cultured from the CSF of a patient with primary amebic meningoencephalitis (PAM) viewed using phase contrast

*Naegleria fowleri* is commonly referred to as the brain-eating amoeba. It can cause a rare and life threatening infection of the brain called primary amebic meningoencephalitis. The amoeba is commonly found in warm, stagnant freshwater and the soil. The amoeba usually infects people when contaminated water enters the body through the nose, typically when people go swimming or jump into a contaminated source, such as a lake, hot spring or an inadequately treated swimming pool. Once the amoeba enters the host, it travels to the brain where it causes an infection, which usually is fatal. The Centers for Disease Control and Prevention has documented 133 known cases of *Naegleria* in United States from 1962 through 2014. Only three people have survived.

In very rare instances, *Naegleria* infections may also occur when drinking water has been contaminated with the amoeba. According to the CDC, recent drinking water outbreaks have occurred both in Arizona and Louisiana. In 2002, two children died from *Naegleria* exposure in Arizona. Since neither child had exposure to swimming in a freshwater lake nor a pond prior to their illness, the drinking water supply was the suspected source of infection. The cause of the

outbreak was determined to be the source water, which was an untreated, geothermal well.

Louisiana has also recently experienced two *Naegleria* outbreaks associated with drinking water. In 2011, two adults died of infectious amebic meningoencephalitis. Their only reported exposures were tap water used for household activities, including regular sinus irrigation with neti pots. Water samples, tap swab samples, and neti pot samples were collected and analyzed. *Naegleria* was detected in water samples from both homes. In 2013, *Naegleria* was detected in two treated drinking water public systems in Louisiana. One child died and his only reported exposure was to tap water which had been used to supply water to a lawn water slide on which the child had played with extensively before becoming ill. *Naegleria* was detected in tap water samples from the child's home and in the system's distribution system.

If *Naegleria* is suspected in a public drinking water system, the system should immediately increase the disinfectant level and conduct flushing. *Naegleria*, when present, often can be found in biofilm within the distribution system piping. Flushing is recommended as biofilm sloughing off may occur due to the increased disinfectant levels. Please note that people cannot be infected by *Naegleria* from drinking contaminated tap water. People can only be infected when contaminated water enters the nose.

Additionally, consumers that practice nasal rinsing (e.g., use neti pots) can take steps to make the water safer, including using distilled or sterile water, boiling water for at least one minute, or using water that has been disinfected appropriately to minimize the risk of infection.

# Regulations affecting storage tank inspections

by Paul Kosik, P.E., field services section

Did you know one of the most common deficiencies identified during a sanitary survey is an improperly sealed or screened opening to the storage tank or clearwell? Effective April 1, 2016, Section 11.28 of Regulation 11 will require public water systems to conduct periodic visual inspections of storage tanks on (at least) a quarterly basis. Vents and overflows with screens should have at least a 24-mesh, non-corrodible screen without any holes, tears or openings to prevent insects or critters from potentially entering the storage tank. Often screens on vents and overflows may not be fastened securely enough which results in detachment of the screen or an incomplete screen seal around the vent or overflow. Although a storage tank may not ever have an overflow discharge event, the Colorado Department of Public Health and Environment still expects public water systems to know the location of the end of pipe discharge point for all tank overflows and demonstrate a proper screen, drainage gate check valve or duckbill valve is in place. The tank access hatch is often overlooked and may have openings to allow entry of potential contamination through drill/screw holes, unscreened hatch sill drains or worn/absent gaskets. In addition to quarterly inspections, public water systems should conduct a quick check on their storage tanks prior to the department's sanitary survey to easily prevent potential significant deficiencies from being cited by the department.



Chipmunk nested in overflow pipe.

## Lead and Copper

*(Continued from page 4)*

treatment. Optimal corrosion control treatment will be specified no later than six months after the study is completed. As noted above, the plans and specifications for the treatment system must be submitted to the department for review and approval. The treatment system must be installed and properly operated no later than 24 months after the designation of the optimal corrosion control treatment.

# Drinking water quiz



Think you know everything about drinking water? Prove your drinking water knowledge with our interactive quiz. Complete all four 2015 drinking water quizzes online and you'll be entered in a drawing to receive *AWWA Water Operator Field Guide*, valued over \$50. The drawing will be held in January 2016. Please go [online](#) to record your answers. Answers will appear in the next issue. Enjoy!

1. Private nonprofit entities are eligible to apply to the state revolving fund program?  
A. True  
B. False
2. Water systems can better prepare for an emergency by becoming a member of the Colorado Water and Wastewater Agency Response Network.  
A. True  
B. False
3. Information related to on-line operator certification exams is available by contacting the Operator Certification Program Office.  
A. True  
B. False
4. Public water systems will be required to conduct periodic visual inspection of storage tanks beginning:  
A. April 1, 2016  
B. July 1, 2016  
C. September 1, 2016  
D. January 1, 2017
5. According to the CDC, every dollar spent on water fluoridation saves how much in dental costs?  
A. \$28  
B. \$42  
C. \$38  
D. \$57
6. The lead and copper rule requires systems to recommend one or more corrosion control treatment methods to minimize lead and copper.  
A. True  
B. False

## Summer quiz answers

1. EPA's rip and run incident checklists cover the following emergencies: *D. All of the above.*
2. When will the small communities grant accept applications? *Fall 2015*
3. What age group benefits the most from water fluoridation? *E. All of the above.*
4. EPA recommends treating algal toxins like acute contaminants and issuing public notice immediately based on test results. *A. True.*
5. When did the new water hauler rule become effective? *B. May 1, 2015.*
6. There will be a stakeholder process prior to the August 2016 rulemaking hearing regarding revisions to Regulation 11. *A. True.*
7. Failing to conduct a required assessment or corrective action under the revised total coliform rule requires a tier two public notice. *A. True.*
8. Drinking water compliance data may be submitted electronically. *A. True.*

# 2015 Rocky Mountain Section Joint Conference at a glance

by Nicole Graziano, P.E., drinking water compliance assurance section

Every year, the Rocky Mountain Section of the American Water Works Association hosts a joint conference that includes attendees from Colorado, New Mexico and Wyoming. This year’s event was hosted in Loveland, Colorado. Over 1,100 colleagues in the water industry attended exhibits and technical presentations. Highlights of the conference included:

- Drinking water taste test. Nine municipalities competed for the title of best drinking water based on taste, odor and appearance. The winner of this competition will represent the section at the national “Best of the Best” taste test at the American Water Works Association’s annual conference in Chicago next June.
  - o Castle Rock Water won first place,
  - o East Cherry Creek Valley Water and Sanitation District placed second,
  - o Denver Water and Aurora Water tied for third place.
- Water tapping contest. The Denver Water men’s team won first place, Westminster Bit Benders placed second, and Albuquerque Breaking Brass placed third. Denver Water women’s team

placed first in the women’s competition.

- Numerous technical presentations. The Colorado Department of Public Health and Environment provided a two hour regulatory special session focused on new and upcoming drinking water regulations, including the revised total coliform rule, storage tank rule, cross-connection backflow prevention rule, and the department’s clarification of the trace disinfectant residual as a minimum of 0.2 mg/L of chlorine. Ron Falco, the manager of the department’s safe drinking water program, presented on future drinking water and wastewater regulations.
- Over 100 exhibits from vendors.

Next year’s conference will be hosted in Keystone. Information will be posted on the Rocky Mountain Section’s website at [www.rmsawwa.org](http://www.rmsawwa.org).



Figure 1. Castle Rock wins the drinking water taste contest source: rmsawwa.org.



# Backflow prevention and cross connection control regulation update

by Jorge Delgado, P.E., field services section

Since 1962 cross connections have been outlawed in the State of Colorado. Cross connections have been known to contaminate drinking water and impair public health and safety. The Colorado Department of Public Health and Environment first adopted cross-connection control regulations in the mid-1980s. Effective January 1, 2016, Regulation 11 will require that public water systems create and maintain a written backflow prevention and cross-connection control program and produce an annual to demonstrate compliance with Regulation 11. Program components and annual report will be reviewed during all sanitary surveys and as needed by the department. Program and report components can be found in Regulation 11. Safe Drinking Water Program Policy 7 provides additional information for backflow prevention and cross connection control in the State of Colorado. These documents can be found at [www.colorado.gov/cdphe](http://www.colorado.gov/cdphe) and entering either Regulation 11 or drinking water policies in the search box.

Program implementation requires public water systems to evaluate all non-residential service connections for potential cross connections. Public water systems may choose not perform an evaluation if a connection is protected with a reduced pressure zone device or air gap. Public water systems will have five years to evaluate all applicable connections. Public water systems also have to ensure that at least 60 percent of the service connections have been evaluated in 2016, 70 percent in 2017, 80 percent in 2018, 90 percent in 2019 and 100 percent by 2020. Public water systems can request an alternative survey compliance schedule; however 100 percent of applicable connections must be surveyed by 2020.

Once a cross connection is discovered, public water systems will have 120 days to control the cross connection(s) from the date of discovery. Appropriate control practices are discussed further in Regulation 11 and Policy 7.

Backflow prevention assemblies and methods used to protect the public water system need to be tested annually. Public water systems have to

ensure that at least 50 percent of the assemblies have been tested in 2016, 60 percent in 2017, 70 percent in 2018, 80 percent in 2019 and 90 percent in 2020 and every following year after.

The department has developed additional guidance which can be found online:

<https://www.colorado.gov/pacific/cdphe/drinking-water-cross-connection-control-program>

Please contact Jorge Delgado at 303-692-3511 or at [jorge.a.delgado@state.co.us](mailto:jorge.a.delgado@state.co.us) for more information.

## Private nonprofit funding eligibility

by Corrina Quintana, grants and loans

On May 19, 2015 Governor Hickenlooper signed Senate Bill 15-121 into law. This bill amends Colorado Revised Statutes, 37-95-107.8 and 25-1.5-201 to allow private nonprofit public water systems to apply for financial assistance from the drinking water revolving fund. On Oct. 1, 2015, private nonprofit entities may begin submitting pre-qualification forms to the Water Quality Control Division. Final program details will be outlined in the annual intended use plan and on the division's grants and loans webpage at [www.colorado.gov/cdphw/wqcd](http://www.colorado.gov/cdphw/wqcd) and type grants and loans in the search box. Entities are encouraged to contact their regional project manager for more information.

# Colorado Environmental Leadership Program

by Lynette Myers, Colorado environmental leadership program and Kaitlyn Minich, local assistance unit

The Colorado Environmental Leadership Program is a voluntary program within the Colorado Department of Public Health and Environment designed to recognize and reward organizations and businesses that demonstrate superior environmental/sustainability performance. As a result, these organizations and businesses consistently operate at a level that goes beyond compliance with environmental regulations and work towards sustainability. The awards event recognizes Colorado organizations with gold, silver and bronze designations. There is no fee for participation and members can receive state incentives.

## Bronze achievers

- Significant environmental or sustainable project.
- One year clean compliance.
- One year recognition.

## Silver partners

- For those seeking gold level.
- Established environmental/sustainability goals.
- One year clean compliance.
- Three year maximum term.

## Gold leaders

- Highest level of recognition.
- Implemented environmental management system.
- Established environmental/sustainability goals.
- Three year clean compliance.
- Three year term, renewable.

The first program event was held in 2000 with only three members in attendance at the Governor's mansion. Today the program has over 160 members.

Through program history there have been a few exceptional members. The City of Fort Collins Drake Water Reclamation Facility, a publicly owned treatment works, is responsible for the treatment of wastewater and a gold leader. The facility partnered with the City of Fort Collins

Utilities and Forestry in an on-site wood-chipping and soil reclamation project which diverted more than 308 tons of material from the landfill. All materials were put to beneficial use within the city and other city projects.

Denver Water is a bronze achiever proudly serving high-quality water and promotes its efficient use to 1.3 million people in the City of Denver and many surrounding suburbs. Established in 1918, the utility is a public agency funded by water rates. Moffat, Marston and Foothills treatment plants combined to reduce hazardous waste disposal by 4150 pounds in 2014. The recycled water plant saved 1,958,565,000 gallons of potable water in 2014.

Established in 1951, South Adams County Water and Sanitation District is dedicated to providing affordable and sustainable water resources to nearly 51,000 customers in a 65 square mile region in the greater Commerce City area of Adams County. As a bronze achiever the district practices waste minimization and recycling throughout its operations. The district is always on the lookout for ways to continuously improve operations in ways that make a positive impact to the triple bottom line. The district has recycled more than six tons of environmental waste, including metals, copper, e-waste and ink/toner cartridges and recycled electricity usage of 230,685 kWh of solar at one pump station.

The City of Glendale is approximately 0.6 square miles with a population of 4,100 people and 17 acres of park space. In 2014, this silver partner has replaced existing street lights with LED lights demonstrating an energy savings of approximately 2,958 kilowatt hours.

These are just a few examples of utilities demonstrating superior environmental and sustainability. If you believe your business demonstrates superior environmental/sustainability performance, please contact Lynette Myers at [lynette.myers@state.co.us](mailto:lynette.myers@state.co.us).

# Ask Aqua Man

I've been hearing a lot about fluoride in the news recently. Can you give me some background information and history on fluoride?

Sincerely,

Flo Ryde

For more information please visit <https://www.colorado.gov/cdphe> and search for community water fluoridation.

Great question! Water fluoridation is a hot topic right now, and understanding the history of fluoride is important.

Back in the early 1900s, a young dental school graduate named Frederick McKay opened a practice in Colorado Springs, and noticed that many locals had brown-stained teeth. Unfamiliar with this disorder, he began investigating different causes of what he deemed Colorado brown stain. After a good deal of research around the western United States, he noticed that teeth affected by brown stain were resistant to decay. It wasn't until the 1930s that the decay-resistant brown stain was linked to the naturally occurring fluoride content in the water. By 1945, Grand Rapids, MI, became the first city in the world to add fluoride to its drinking water.

While a vocal minority has opposed fluoridation of drinking water since its beginning in the 1940s, the majority of scientists and dentists support this practice. Properly fluoridated water has been scientifically proven to dramatically reduce the risk of cavities in children and there is no evidence of negative health or cosmetic consequences. Brown stain was a result of significantly higher fluoride concentrations than what we have today. In fact, according to the American Dental Association, every dollar spent on fluoride saves \$38 in dental costs. The Centers for Disease Control considers fluoridation of drinking water to be one of the top ten public health achievements of the 20th century. Further, the American Medical Association, American Dental Association, World Health Organization and many other organizations support public water fluoridation.



## Your turn: Ask Aqua Man

Have some time saving helpful hints or tips to share with fellow operators? Can Aqua Man answer your question? Is there a topic you would like discussed?

Contact Jacki Main

- ◆ email: [jacklyn.main@state.co.us](mailto:jacklyn.main@state.co.us)
- ◆ phone: 303-692-3665
- ◆ fax: 303-782-0390

# Safety tips

by Kaitlyn Minich, local assistance unit



Winter is coming. Now is the time to prepare your vehicle for unexpected snow storms and treacherous winter driving conditions.

- Blankets or sleeping bags offer protection from the cold and can ward off hypothermia and frost bite.
- Winter jackets provide additional warmth. Don't leave your vehicle during a winter storm; however once the storm has passed, warm outdoor wear is essential if you need to travel for assistance.
- Non-perishable snacks will take the edge off hunger, especially during a prolonged winter event. Bottled water is typically not required as there is not a shortage of water during a winter storm.
- Cat litter or sand will add weight and traction to a vehicle. Also, these materials can help tires gain traction on snow or ice packed roads.
- Flashlights can be used to signal your location and assist in finding your way.
- Jumper cables should be a year-round vehicle staple. Cold temperatures can affect car batteries and make it harder for your vehicle to start.
- Battery powered radios are beneficial in remote locations where cell service is questionable.
- Keep a red bandana handy to tie to your vehicle's antenna signaling you need help.

# Pressure loss

by Kaitlyn Minich, local assistance unit

A frequent occurrence in this industry is pressure loss and main breaks. How your system deals with these situations is very important. All emergency response plans should include a pressure loss and main break response guideline. Here are important considerations when developing a response plan:



- **Repair:** Use valves to isolate the affected area of the distribution system and excavate to an area below the break. Disinfect the interior of all repaired pipes and fittings with one percent chlorine solution and repair the break. The chlorine solution is one part household bleach with seven parts water.
  - **Restore:** Restore pressure, flush and disinfect the distribution system. Ideally, disinfectant concentrations should be between 3 to 4 mg/l free chlorine to adequately remove any contamination that may have occurred. Systematically flush through to the ends of your distribution system, and measure the concentration at each flushing point. Remember to de-chlorinate any water that is entering a stream, river or lake.
  - **Sample:** Take bacteriological samples. This is where that early phone call to the state will come in handy! We will let you know how many bac-t samples to take based on how many service connections your system has and how many service connections were affected.
  - **Record:** Document what happened. Log all actions taken to fix the problem.
- Remember, while you may know how to respond to a main break or pressure loss event, documenting the process allows anyone to respond if the event occurs while you are on vacation.
- **Notify:** Affected customers and the state health department must be notified of the event. Not all pressure loss or main break events will result in state involvement, but it's always a good idea to check! Report a new community public health emergency or hazardous substance spill event at any time: 1-877-518-5608.

# Operator online testing

by Sylvia Rottman, D.M.C.P., Operator Certification Program Office

In 2006, operator online testing began in Colorado. Before testing could begin, exam locations needed to be determined. After an extensive search, public libraries in Craig, Meeker and Greeley were able to accommodate exam location requirements to help pioneer in this project. However, the initial online exam took place at La Junta at Otero Junior College on October 14, 2006. Two staff members proctored the exam and assessed potential issues with administering online exams. Minor issues with computer equipment occurred, but nothing related to receiving or taking the online test.

Operators were enthusiastic about taking the exam online, mainly because they were able to receive scores immediately. The pass/fail ratio was similar to the traditional exam method. A shorter time frame may be needed for the web-based exam. One candidate took two exams in just five hours.

With the success of the initial testing, offering online testing continued throughout the state over

the next two years. While attendance at exam sites varied, the online testing method was viewed as favorable by its participants.

Looking to the future, program staff determined having a testing lab in conjunction with the certification office would be advantageous. Space became available in 2009 and was remodeled as a computer testing lab.

Since its inception, requests for online exams have increased significantly. To accommodate the growing demand, the program offices have been redesigned to seat 48 students each testing day. Additionally, sites at Pueblo Community College and Grand Junction are offered to meet the needs of the online exam method. More information about testing schedules and locations is available at [www.ocpweb.com](http://www.ocpweb.com) or call 303-394-8994.



Computer testing lab at the Operator Certification Program Office in Denver.

## Visit us on the web

Follow safe drinking water program on Twitter!

[twitter.com/WQCD\\_Colorado](https://twitter.com/WQCD_Colorado)

The Water Quality Control Division's home page web address is

[www.colorado.gov/cdphe/wqcd](http://www.colorado.gov/cdphe/wqcd)

For training opportunities, please visit the division's website at

[www.colorado.gov/cdphe/dwtraining.com](http://www.colorado.gov/cdphe/dwtraining.com)

To access Aqua Talk online, go to

[www.colorado.gov/cdphe/aquatalk.com](http://www.colorado.gov/cdphe/aquatalk.com)

To access inspection services go to:

[www.colorado.gov/cdphe/wqinspectionsservices](http://www.colorado.gov/cdphe/wqinspectionsservices)

To access the contact list for drinking water regulations go to

[www.colorado.gov/cdphe/wqcd](http://www.colorado.gov/cdphe/wqcd)

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## Aqua Talk

### Newsletter Information

Editorial team: Ron Falco, Jacki Main, Armando Herald, Kaitlyn Minich, Doug Camrud, Kelly Jacques, Corrina Quintana.

We welcome comments, questions, story ideas, articles and photographs submitted for publication. Please address correspondence to Jacki Main, Aqua Talk Newsletter, Water Quality Control Division, 4300 Cherry Creek Dr. S., B2, Denver, CO 80246,1530 or email [comments.wqcd@state.co.us](mailto:comments.wqcd@state.co.us). Enter "Safe Drinking Water Newsletter" as the subject. Past issues are available by contacting the editor or visiting the website at:

[www.colorado.gov/cdphe/aquatalk.com](http://www.colorado.gov/cdphe/aquatalk.com)

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**COLORADO**

**Water Quality Control Division**

Department of Public Health & Environment



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# Aqua Talk



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DATE OF ISSUE: FALL 2015

Editor: Jacki Main

*Purpose: to communicate division drinking water-related issues to stakeholders.*