

Winter 2011

Water Main Breaks 101

## 'Tis The Season

When it comes to water main breaks, Fairfax Water is lucky! Our distribution system is relatively young, so we experience fewer main breaks than many older water utilities. But because



A Fairfax Water crew repairs a main break on Brandon Avenue.

main breaks are caused by a variety of factors - including freezing weather, pipe corrosion, ground movement, or being struck by heavy equipment - we still experience quite a few each year.

What happens when a main break occurs? Well, our top priority is to restore water service to any customers who are without water because of the break. We also want to stop the break from leaking as soon as possible to minimize safety issues and water loss. So we have crews on call 24/7 who spring into action to battle fierce - or even fairly mild - water main breaks.

So here is how a main break is repaired:

- ◆ An employee is immediately dispatched to the site to determine if it is a main break and to set up safety equipment. If there is a main break, a crew is dispatched and they locate and close nearby valves to isolate the broken main from the water system. Closing the valves closest to the break minimizes service disruptions to customers.

*See Water Main Breaks, page 2*

Penderwood Storage Tank

## 600 Tons of Steel

Completed this past summer, the Penderwood Storage Tank (far right) is the largest above-ground tank in the Fairfax Water system. Made of 600 tons of steel, the tank holds 5.5 million gallons of water - enough to fill 275 swimming pools!

The tank is located on the east side of the West Ox Road between Vale and Waples Mill Roads. It was designed to match the appearance of the existing ground storage tanks on West Ox Road. The project also includes construction of a security wall and fencing around the property as well as some site improvement.

Building the new tank took about 18 months and will be paid for by future customers



of Fairfax Water.. Adding this new storage capability is part of an ongoing improvements program to ensure that our distribution system can meet the increasing demands for water without any impact on the reliability or quality of our service. To see more photographs of the project, turn to page 2 and visit [www.fairfaxwater.org/engineering/Penderwood%20Poster%20PQ2.pdf](http://www.fairfaxwater.org/engineering/Penderwood%20Poster%20PQ2.pdf). ◆

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## Water Main Breaks *(Cont. from page 1)*

- ◆ Once the valves are shut off, Fairfax Water notifies Miss Utility of the impending excavation so the water main and other utilities near the water main break can be identified. Repair work cannot begin until all other utilities in the area are identified so the crew does not damage them.
- ◆ After the utility lines are marked, excavation can begin. Construction equipment helps to remove most of the ground above the pipe and a pump helps to remove water from the excavated trench. Most Fairfax Water pipes are buried from three to 10 feet below ground, so depending on the depth, additional measures may be taken to ensure the safety of the workers. This can extend the time it takes to repair a break.
- ◆ Once the pipe is exposed, crews can begin to repair or replace the broken main. When the repair is complete, crews open a nearby hydrant to flush air and sediment from the pipe before reconnecting it to the system. It can take a while for large mains to refill and restore system pressures.
- ◆ Next, the repair crew backfills the trench with gravel and prepares the road for patching. Workers use cold mix asphalt as a temporary patch until Fairfax Water’s appointed contractor can permanently repave the road.



### When Water Service is Restored

If your water service has been interrupted due to a water main break, it may have stirred up sediment in the pipe and cause water containing this sediment to enter your home. To prevent clogs, remove the aerators from sinks and washing machines and run the water for a few minutes to flush your pipes. You may also experience cloudy water and bursts of air when service is restored. This is caused by air in the pipes and also can be cleared by running the water for a few minutes.

**To report a water main break or other water-related emergency, please call 703-698-5613, TTY 711, or send an e-mail to [watermainbreak@fairfaxwater.org](mailto:watermainbreak@fairfaxwater.org).**

### Planning for the Future

Through detailed planning, Fairfax Water has put in place a replacement schedule and long-term financial strategies designed to maintain the quality of our system and our service. The Board of Directors uses this financial strategy each year to develop our annual budget and evaluate the need for rate revisions. The goal is to ensure that funding is available to replace or upgrade the system as needed without any unanticipated financial burden. ◆

## Penderwood Tank *(Cont. from page 1)*

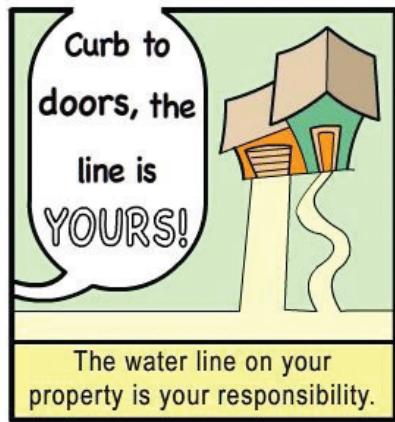
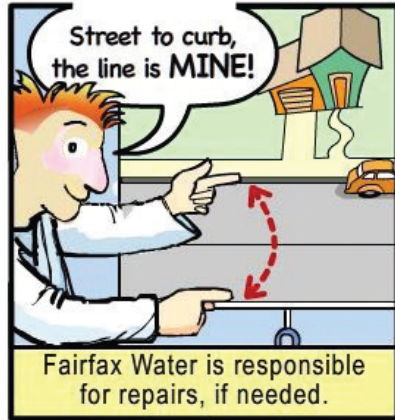
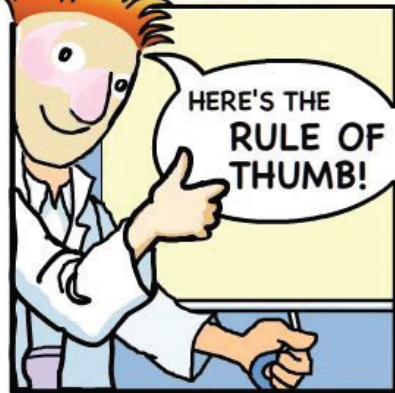


**By the Numbers**

- Project Site Acreage: 7.5 acres
- Storage Tank Size: 5.5 million gallons
- Above Ground Storage Tank Height: 55 feet
- Operating Tank Elevation: 555 feet
- Approximate Weight of the Water in the tank: 23,000 tons
- 274 concrete piles

# Who OWNS the LINE?

For more information, visit [www.fairfaxwater.org](http://www.fairfaxwater.org).



## Glad You Asked!

**Q.** Can you tell me why I sometimes have a pink stain around my faucets or drains?

**A.** What is that **PINK** stuff? Pink stains in the kitchen and bathroom are common in many households and are typically caused by a growth of airborne bacteria.

Many types of bacteria and fungi in the natural environment thrive on moist surfaces and can cause staining, particularly in the kitchen and bathroom in toilet bowls, bathtubs or showers, sinks, faucets, and pet water bowls. The stains can take on various colors such as pink, orange, red, grey, or black, depending on the type of microorganism causing the stain. These microorganisms are typically considered to be non-pathogenic, which means they do not cause disease. Disinfecting affected surfaces with a cleaner containing a bactericide and keeping surfaces such as sinks, showers, and faucets dry when not in use can help prevent this growth from occurring.

Fairfax Water disinfects the water in the treatment process using ozone and chlorine. A chlorine residual is used in the water distribution system to protect against bacteriological growth after the water has left the treatment plant. We conduct extensive testing at locations throughout the water treatment process and in the distribution system in compliance with the Environmental Protection Agency's Safe Drinking Water Act. The test results from every sample location throughout the system routinely meet or surpass regulatory requirements. Information on water quality, along with more analytical results, is available on our Web site at [www.fairfaxwater.org/water/index.htm](http://www.fairfaxwater.org/water/index.htm).

*If you have a question, concern, or compliment, contact us at [pr@fairfaxwater.org](mailto:pr@fairfaxwater.org) or call 703-698-5600, TTY 711.*

## News from Fairfax County Wastewater Management

### Wastewater and the Chesapeake Bay



There has been much in the news recently about efforts to restore the Chesapeake Bay. The Environmental Protection Agency has established what they refer to as a pollution diet for the bay that requires significant reductions in the amount of nitrogen, phosphorous, and sediments entering the bay.

Wastewater is one of the many sources of nitrogen and phosphorous. The treatment plants serving Fairfax County are required to reduce the amounts of these nutrients, which will require the construction of additional treatment facilities. The estimated cost of these new facilities is more than \$300 million. This cost is one of the contributors to the increases in sewer rates.

In addition to construction of new treatment facilities, the county is also building a water-reuse facility that will use fully treated wastewater effluent for golf-course irrigation and as cooling water at the Waste to Energy Plant. This project will also reduce the nutrient loads going to the bay.

Residents can further help the bay efforts by placing unused grease in cans and disposing of the cans in the trash to keep the grease out of the sewer system. This helps to reduce backups and overflows, and reduces treatment costs. Also, dispose of unused medications in the trash so they don't find their way to the Chesapeake Bay. For more information, visit [www.fairfaxcounty.gov/opa/chemicals\\_drugs\\_water.htm](http://www.fairfaxcounty.gov/opa/chemicals_drugs_water.htm).

**BRRRRRRRRRR!**  
Be sure your pipes are ready to hibernate this winter. Visit [www.fairfaxwater.org/current/winter\\_tips.htm](http://www.fairfaxwater.org/current/winter_tips.htm) for everything you need to know about protecting your pipes from freezing when the temperature dips.



**We Want to Know . . .**

If you have comments or suggestions about this publication, please e-mail us at [pr@fairfaxwater.org](mailto:pr@fairfaxwater.org), call us at 703-698-5600, or write to the address below:

*Straight From the Tap* Editor  
Fairfax Water  
8570 Executive Park Ave.  
Fairfax, VA 22031

**Important Numbers**

**Fairfax Water Services**

Questions about water service:  
703-698-5800

After-hours water emergencies:  
703-698-5613

To report a water main break:  
703-698-5613 or send an e-mail to [watermainbreak@fairfaxwater.org](mailto:watermainbreak@fairfaxwater.org).

Questions about billing:  
703-698-5800

All other Fairfax Water departments: 703-698-5600

**Fairfax County Services**

24-hour trouble-response center for sewer back-ups or sluggish flow in a sink, toilet, or tub: 703-323-1211

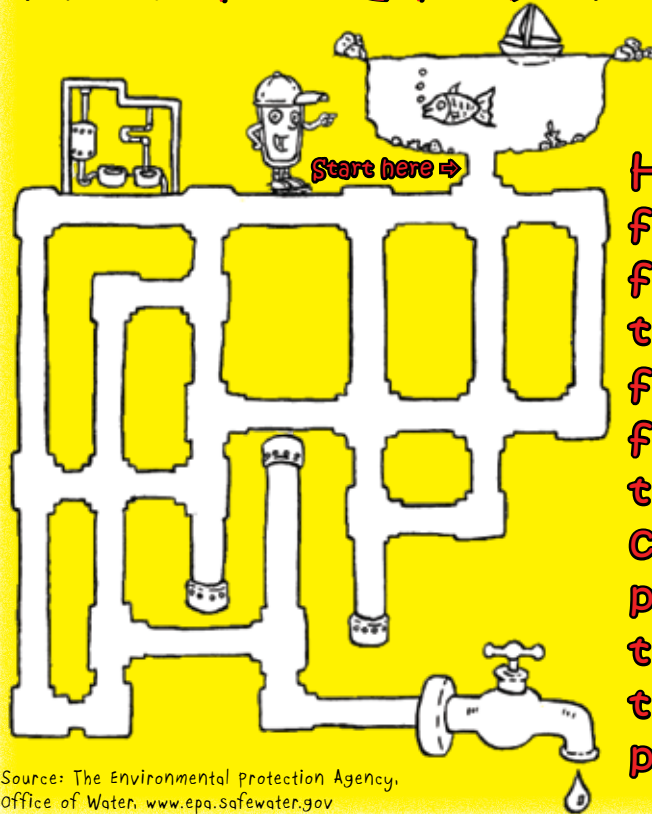
Sanitary sewer back-ups and line maintenance: 703-250-2003

**Dig with C.A.R.E.**

Miss Utility at 1-800-552-7001 or 811

Use TTY 711 (*Virginia Relay*) for all numbers unless otherwise stated.

**KIDS' CORNER**



Source: The Environmental Protection Agency, Office of Water, [www.epa.gov/safewater.gov](http://www.epa.gov/safewater)

**Thirstin's Adventure!**

Help the water find its way from the river to your faucet by following the correct path through the pipes.



**MARK YOUR CALENDAR**

**Thurs., Dec. 15**

Fairfax Water Board of Directors holds public hearing on the proposed 2012 budget and rate revisions at 6:30 p.m.  
(See [www.fairfaxwater.org/rates/index.htm](http://www.fairfaxwater.org/rates/index.htm) for more information.)

**Fri., Dec. 23 at noon & Mon., Dec. 26**

Fairfax Water offices closed for Christmas

**Mon., Jan. 2**

Fairfax Water offices closed for New Year's Day

**Mon., Jan. 16**

Fairfax Water offices closed for Martin Luther King, Jr. Day

**Mon., Feb. 20**

Fairfax Water offices closed for Presidents' Day

**April - June 2012**

Fairfax Water's Annual Water Main Flushing  
(See [www.fairfaxwater.org/current/free\\_chlorine.htm](http://www.fairfaxwater.org/current/free_chlorine.htm) for more information.)

**Mon., May 28**

Fairfax Water offices closed for Memorial Day

**Sun., June 3**

Fairfax Water 2012 Annual Water Quality Report appears in Washington Post



Fairfax Water is a public, non-profit water authority serving nearly 1.7 million people in the Northern Virginia communities of Fairfax, Loudoun, Prince William, Fort Belvoir, Herndon, Dulles, and Alexandria.



**Water-Saving Tip**

This cold and flu season you can save gallons of water each time you drop your tissue in the trash instead of flushing it. For more information and water-saving tips, visit [www.wateruseitwisely.com](http://www.wateruseitwisely.com).