

Terms to Remember

Maximum Contaminant Level or MCL: This is the highest level of contaminant in drinking water. MCL's are set as close to MCLG's as feasible using the best available technology.

Maximum Contaminant Level Goals or MCLG's: These goals are set at levels which are below where there is no known health risk. MCLG's are considered a margin of safety (Safety Net).

Micrograms/Liter or ug/l: = parts per billion (Comparison)

Milligrams/Liter or mg/l: = parts per million (Comparison)

Picocuries/Liter or pCi/l: = A measure of radioactivity

Tips For Saving Water

Understanding where you use water most can provide hints on where the most water can be conserved. Here are a few water conservation tips:

- ❖ Don't use the toilet as a wastebasket.
- ❖ Take shorter showers. A quick shower rather than a bath can save an average of 20 gallons of water. A three to five minute shower is recommended.
- ❖ Garbage disposals use approximately 11.5 gallons of water per day. Try composting organic wastes instead.
- ❖ Use dishwasher and washer only when you have full loads.
- ❖ Direct downspouts and other runoff towards shrubs, trees and gardens.

Conservation Kits are available for free at the Water Department office and the Billing Clerk's office.

2008 Water Quality Testing Results

CONTAMINANT	HIGHEST DETECT VALUE	RANGE DETECTED	AVERAGE DETECT	MCL	MCLG	VIOLATION (Y/N)	POSSIBLE SOURCE OF CONTAMINATION
Lead	5.6ug/L	0.0 - 5.6ug/L	2.9ug/L	15ug/L	0	N	Corrosion of lead solder in household plumbing.
Copper	.20mg/L	.017 - .20mg/L	.14mg/L	1.3mg/L	0	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. Regulations require (20) lead & copper samples to be taken and ranked highest to lowest. The 90 percentile would relate to sample number 18 on this list and is indicated as the average for reporting purposes. Of the 20 samples taken, 0 samples exceeded the MCL for lead.							
Nitrate	4.84mg/L	.02 - 4.84mg/L	4.6mg/L	10mg/L	10mg/L	N	Runoff from fertilizer use. Leaching from septic tanks. Erosion of natural deposits.
Gross Alpha Tested 2003	1.6 pCi/L	0.2 - 1.6pCi/L	0.9pCi/L	15pCi/L	0	N	Erosion of Natural Deposits
Radium 226 & 228 Tested 2003	1.1pCi/L	0.0 - 1.1pCi/L	0.6pCi/L	5pCi/L	0	N	Erosion of Natural Deposits
Fluoride Tested 2002	0.08mg/L	0.05 - 0.08mg/L	0.066mg/L	4.0mg/L	4.0 mg/L	N	Erosion of Natural Deposits
Sodium Tested 2007	96.7 mg/L	7.0 - 96.7mg/L	45.6mg/L	none	none	N	MA Highway Department Winter Deicing Procedures



ORANGE WATER WORKS

ISSUE 19 A NEWSLETTER FROM THE ORANGE WATER DEPARTMENT

APR.-JUNE 2009

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1223000



Equal Opportunity Provider

BOARD OF WATER COMMISSIONERS

Richard Kilhart, Chairman

Donald Priestley, Clerk

Donald Barnes, Member

Regular Meetings

2nd & 4th Mondays, 7:00pm

The Orange Water Department

STAFF

Bruce Merriam, Superintendent

Steven Boudreau, Foreman

Richard Matthews, Water Operator

Kenneth Wysk, Water Operator

Lynne Boutwell, Billing Clerk

Office Hours Mon-Fri 6:30am-3:00pm



The Orange Water Department has 3 sources of water consisting of 3 ground wells.

Well #1 is located off from Holtshire Rd. and is used for emergency use only.



Well #2 is located off from West River St.

Well #3 is located off from Daniel Shays Highway (Route 202).

We also have an interconnection with the Town of Athol on Brookside Rd.

Construction on Tap 2009

Summit Street Water Main Improvement Project:

A new 8" water main, 2 new hydrants and new house services to the property line will be installed as part of a CDBG Project.

Note: Construction causes delays and some inconvenience, your patience is greatly appreciated.



Lead and Copper Detections

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Orange Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>



Numbers to Remember

Environmental Protection Agency's Safe Drinking Water Hotline
1-800-426-4791

State Department of Environmental Protection **1-413-784-1100**

Orange Water Department Super. Bruce Merriam **978-544-1115**

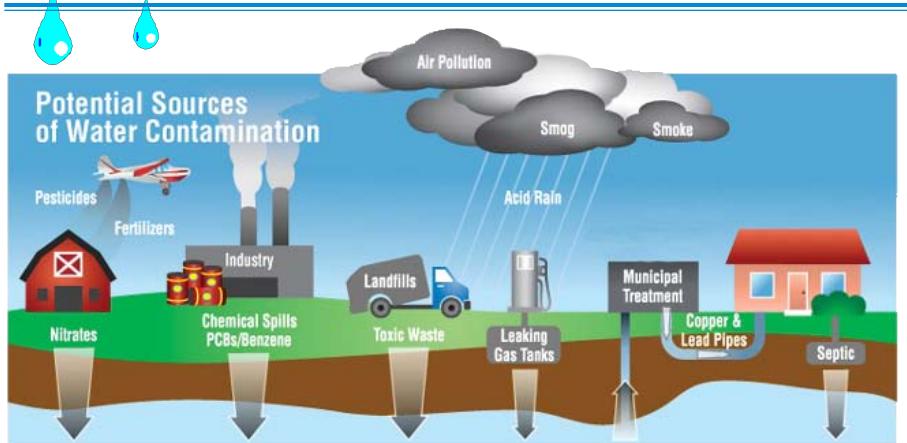
Billing Questions **978-544-1100 x102**

After Hours Cell Phone **978-501-2062**

Orange Water Department E-Mail: water@townoforange.org

Town of Athol Water Operator (Tully Residents) Andy Tessier
978-249-9244

Levels of Some Contaminants



"Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contamination. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791)."

"Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791)."

Sources of Drinking Water and Drinking Water Contaminants

"Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals can be naturally-occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.

Pesticides and herbicides, may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, can be naturally occurring or be the result of oil and gas production, and mining activities.

Radioactive contaminants, can be naturally occurring or be the result of oil and gas production, and mining activities.



In order to ensure that tap water is safe to drink, the Department and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. FDA and the Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

For Your Information

Due to a 400% increase in the cost of Potassium Hydroxide in the last 2 years and a 55% increase in electricity costs in the last year there will be a water rate increase beginning July 1st.

In order to save money on overtime expenses, the Water Dept. will be flushing most of the hydrants in town during normal working hours the last week in April & the first week in May.

Source Water Assessment Report

Some potential sources of contamination in the source water area include: Fertilizers & Pesticides, Underground Storage Tanks, Transportation Corridors & Septic Systems. The DEP has assessed our water system as having a high susceptibility to potential contamination from Fertilizers & Pesticides and Underground Storage Tanks. A copy of the Source Water Assessment Report may be obtained by calling the Orange Water Department or online at <http://www.mass.gov/dep/water/drinking/swareps.htm>

Protecting Your Home Against Cross-Connections

What is a "cross-connection"?

A cross-connection is a permanent or temporary piping arrangement which can allow your drinking water to be contaminated if a backflow condition occurs.

What is "backflow"?

It's just what it sounds like: the water is flowing in the opposite direction from its normal flow. With the direction of flow reversed, due to a change in pressures, backflow can allow contaminants to enter our drinking water system through cross-connections.



A potentially hazardous cross-connection occurs every time someone uses a garden hose sprayer to apply insecticides or herbicides to their lawn. Another cross-connection occurs when someone uses their garden hose to clear a stoppage in their sewer line.

Without a backflow prevention device between your hose and hose bibb (spigot or outside faucet), the contents of the hose and anything it is connected to can backflow into the piping system and contaminate your drinking water.

This hazardous situation sometimes can affect more than a single home. In 1977, an entire town in North Dakota had to ration drinking water from National Guard water trucks while the town's water distribution system was flushed and disinfected following contamination by DDT. Investigation determined that two residents spraying DDT had made direct cross-connections to their homes. A backflow condition had occurred, sucking the DDT through the home piping systems and out into the town's water distribution system.

Backflows due to cross-connections are serious plumbing problems. They can cause sickness and even death. However, they can be avoided by the use of proper protection devices. Each spigot at your home should have a hose-bibb vacuum breaker installed. This is a simple, inexpensive device which can be purchased at any plumbing or hardware store. Installation is as easy as attaching your garden hose to a spigot.

For more information on cross-connection control and backflow prevention for your home or business, please contact the Orange Water Department at 978-544-1115.