

## **Source(s) & Treatment of Your Drinking Water**

The source of your drinking water is from eight drilled wells (groundwater) (Well No. 2, Well No. 3, Well No. 4, Well No. 5, Well No. 6, Well No. 7, Well No. 15 and Well No. 16) that are located throughout the Waterfront Section 2-9 subdivision. Treatment is provided by feeding the following solutions: chlorine for continuous disinfection of the water, soda ash for pH adjustment of the water and potassium permanganate for removal of iron and manganese in the drinking water. Three greensand filters are used to remove iron, manganese and radium from the drinking water.

A source water assessment of our system was conducted in 2002 by the Virginia Department of Health. The well(s) were determined to be of high susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The assessment report consists of maps showing the source water assessment area, an inventory of known land use activities of concern, and documentation of any known contamination within the last 5 years. The report is available by contacting your water system operator at the phone number or address given elsewhere in this drinking water quality report.

## **Additional Information for Lead**

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. The Water Authority 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 on their website at <http://www.epa.gov/safewater/lead>.

## **About the Western Virginia Water Authority**

The Western Virginia Water Authority was formed in July 2004 to provide reliable public water and wastewater service to the residents of the City of Roanoke and Roanoke County. In early 2009, the Authority's service area expanded with the acquisition of The Waterfront and several other community water systems in the Smith Mountain Lake area of Franklin County.

Although the customer base has expanded, our vision remains the same. The Authority takes pride in being a partner in regional cooperation. To that end, construction is ongoing to provide reliable public water and fire protection to residents along the U.S. Route 220 corridor between Clearbrook and Wirtz Plateau. Engineering designs are also being developed to provide public water along the Scruggs Road corridor.

## **Your Water Quality Report**

This water report, supplied annually to water customers, contains information about the source of your water, what it contains and how it compares to the standards set by regulatory agencies. The data collected during 2008 for this report came from reports from the previous water system owner and the Virginia Department of Health. In January 2009, the Western Virginia Water Authority acquired the Waterfront Water System. The Western Virginia Water Authority looks forward to serving your water needs in the future.

If you have questions or comments about your water supply, please contact us at 540-853-5700 or by email at [info@westernvawater.org](mailto:info@westernvawater.org).



## **The Waterfront** Section Two-Nine

## **2008 Water Quality Report**



### **Western Virginia Water Authority**

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## Drinking Water Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

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 in source water may come from septic systems, discharges from domestic or industrial wastewater treatment facilities, agricultural and farming activities, urban stormwater runoff, residual use and many other activities. Water from surface sources is treated to make it suitable for consumption while groundwater may or may not require treatment.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems.

### Do I Need to Take Special Precautions?

Some people may be more vulnerable to trace 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 about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate measures to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available by calling the Safe Water Drinking Hotline (800-426-4791).

Inorganic Contaminants							
Substance	Units	Ideal Goals (EPA's MCLG)	Highest Level Allowed (EPA's MCL)	Exceedence	Level Found/Range	Date of Sample	Source of Substance
Nitrate	ppm	10	10	no	Highest: 2.09 Range: ND to 2.09	December 2008	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride	ppm	4	4	no	Highest: 0.2 Range: ND to 0.2	September 2006	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Radiological Contaminants							
Alpha emitters	pCi/L	0	15	no	0.8	September 2008 (Treatment Plant Only)	Erosion of natural deposits
Lead and Copper							
Substance	Units	Ideal Goals (EPA's MCLG)	Highest Level Allowed (EPA's MCL)	Exceedence	Level Found/Range	Date of Sample	Source of Substance
Lead	ppb	0	AL=15	No	6 (90th percentile) Range: <2 to 7.5 Of all five samples collected, none exceeded the AL.	September 2006	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	ppm	1.3	AL=1.3	No	0.267 (90th percentile) Range: <0.02 to 0.328 Of all five samples collected, none exceeded the AL.	September 2006	Corrosion of household plumbing systems; Erosion of natural deposits
HAA5s (Total Haloacetic Acids)	ppb	N/A	60	No	1	September 2007	By-product of drinking water disinfection
TTHMs (Total Trihalomethanes)	ppb	N/A	80	No	4.5	September 2007	By-product of drinking water disinfection
Chlorine	ppm	MRDLG=4	MRDL=4	No	Average: 0.14 Range: 0.09 to 0.3	Monthly 2008	Water additive used to control microbes
Aesthetic Quality							
Substance	Units	Ideal Goals (EPA's MCLG)	SMCL	Exceedence	Level Found	Date of Sample	Typical Source of Substance
Iron	ppm	N/A	0.3	Yes	Highest: 0.46 Range: ND to 0.46	November 2006	Erosion of natural deposits
Manganese	ppm	N/A	0.05	Yes	Highest: 0.17 Range: ND to 0.17	November 2006	Erosion of natural deposits

**Action Level (AL):** The concentration of a contaminant that triggers treatment or other requirement that a water system must follow.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfection Level Goal (MRDLG):** The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that additional of a disinfectant is necessary for control of microbial contaminants.

**ppm:** One part per million (for example, one minute in two years).

**ppb:** One part per billion (for example, one minute in 2,000 years).

**pCi/L:** Picocuries per liter is a measure of the radioactivity of water.

**Secondary Maximum Contaminant Level (SMCL):** the highest level of a contaminant that is allowed in drinking water based on aesthetic considerations.

### About The Data

This table summarizes water-testing results from January 1, 2008 to December 31, 2008 for both regulated and un-regulated substances. The Waterfront System Section 2 had no detections of total coliforms or fecal coliforms in the monthly samples collected during calendar year 2008. There were no violations in 2008.

**Sodium:** According to results of the chemical analyses for Metals based on a sample collected on November 7, 2006 the sodium in the treated water is 26.1 mg/L for the Treatment Plant Entry Point. This is above the EPA recommended optimal level of less than 20 mg/L for sodium in drinking water, which is established for those individuals on a "strict" sodium intake diet.