

# 2007 WATER QUALITY REPORT FOR THE HIGHFIELD WATER SYSTEM

## **Is my water safe?**

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. The Washington County Department of Water Quality vigilantly safeguards its water supplies and once again we are proud to report that our system has never violated a maximum contaminant level or any other water quality standard.

## **Do I need to take special precautions?**

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 about drinking water from their health care providers. EPA/Centers for Disease Control (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 (800-426-4791).

## **Where does my water come from?**

The Highfield System utilizes four wells as its primary water source. This water is pH adjusted; fluoridated; and chlorinated prior to entering the distribution system. During periods of low water table conditions, water can be purchased from the Washington Township Municipal Authority. Washington Township Municipal Authority uses three springs and three wells as their water source. No water was purchased from Washington Township Municipal Authority in 2000 through 2007.

## **Source water assessment and its availability**

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for the Highfield Water System. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of Highfield's water supply are four wells that draw from an unconfined fractured rock aquifer. The Source Water Assessment area was delineated by the WSP using EPA approved methods specifically designed for this source type.

Point sources of contamination were identified within the assessment area from field inspections, contaminant inventory databases, and previous studies. The Maryland Office of Planning's 2000 digital land use map for Washington County was used to identify non-point sources of contamination. Well information and water quality data were also reviewed. An aerial photograph and maps showing potential contaminants sources and land use within the Source Water Assessment area are included in this report.

The susceptibility analysis is based on review of the existing water quality data for the Highfield Water System, the presence of potential sources of contamination in the source water assessment area, well integrity, and the inherent vulnerability of the aquifer. It was determined that Radon-222, a naturally occurring contaminant, may pose a risk to the Highfield water supply. The water supply is not susceptible to contamination by inorganic compounds, other radionuclides, volatile organic compounds, synthetic organic compounds, or microbiological contaminants.

For more information on the report, please contact Mr. William Dean of our office at (240) 313-2600.

## **Why are there contaminants in my drinking water?**

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).

## **How can I get involved?**

The Washington County Department of Water Quality has an Advisory Board that meets on a monthly basis. For information about attending a meeting, please contact our main office at (240) 313-2600.

# Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

<u>Contaminants</u>	<u>MCLG or MRDLG</u>	<u>MCL, TT, or MRDL</u>	<u>Your Water</u>	<u>Range</u> <u>Low</u> <u>High</u>		<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
<b>Inorganic Contaminants</b>								
Barium (ppm)	2	2	0.05		0.05	2007	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.1	NA		2007	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	2.5	0.9	2.5	2007	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)		MPL	15.1	5.1	15.1	2007	No	Erosion of natural deposits; Leaching
<b>Radioactive Contaminants</b>								
Alpha emitters (pCi/L)	0	15	1		1	2003	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)	0	50	3		3	2003	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
<b>Volatile Organic Contaminants</b>								
Tetrachloroethylene (ppb)	0	5	0.5		0.5	2007	No	Discharge from factories and dry cleaners
<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>Your Water</u>	<u>Sample Date</u>	<u># Samples Exceeding AL</u>	<u>Exceeds AL</u>	<u>Typical Source</u>	
<b>Inorganic Contaminants</b>								
Copper - action level at consumer taps (ppm)	1.3	1.3	0.577	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead - action level at consumer taps (ppb)	0	15	0	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
<b>Unit Descriptions</b>								
<u>Term</u>	<u>Definition</u>							
ppm	ppm: parts per million, or milligrams per liter (mg/L)							
ppb	ppb: parts per billion, or micrograms per liter (µg/L)							
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)							
NA	NA: not applicable							
ND	ND: Not detected							
NR	NR: Monitoring not required, but recommended.							
<b>Important Drinking Water Definitions</b>								
<u>Term</u>	<u>Definition</u>							
MCLG	MCLG: Maximum Contaminant Level Goal: 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.							

MCL	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a 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.
MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

### Results of voluntary monitoring

The Washington County Department of Water Quality conducts routine testing on your water system that is not included in the Water Quality Data Table. A list of parameters and their results are listed in the Table of Results of Customer Interest below.

**TABLE OF TEST RESULTS OF CUSTOMER INTEREST**

PARAMETER	LEVEL/RANGE DETECTED	UNIT OF MEASUREMENT
PH	7.0 to 7.7	Standard Unit
Chlorine	0.3 to 1.6	ppm
Turbidity	0.117 to 0.637	NTU
Fluoride	0.7 to 1.2	ppm

For more information on the Washington County Department of Water Quality, please visit our website at [www.washco-md.net/water\\_sewer](http://www.washco-md.net/water_sewer)

**For more information on the Highfield Water System  
Contact: William H. Dean, Jr. at (240) 313-2600**