

2006 WATER QUALITY REPORT FOR THE BROOK LANE HEALTH SERVICES 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. Brook Lane Health Services 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?

Brook Lane Health Services utilizes three wells as its water source. The water from the wells is chlorinated prior to entering the distribution system. During 2002, the wells supplying water to the Brook Lane Health Services Water System experienced a decrease in water production as the result of drought conditions. This resulted in Brook Lane purchasing water from Antrim Township to supplement the water supply. No water was purchased from an outside source in 2004, 2005 and 2006.

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 Brook Lane Mental Health Services 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 Brook Lane's water supply are three wells in 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 investigated 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 Brook Lane 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 Brook Lane Mental Health Services water supply. The water supply is not susceptible to other radionuclides, inorganic compounds, volatile organic compounds, synthetic organic compounds, or microbiological contaminant.

For more information on this report, please contact Mr. Paul Gyurisim at (301) 733-0330.

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?

For information on how to get involved with the Brook Lane Health Services Water System, please contact Mr. Paul Gyurisim at (301) 733-0330.

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 Low High</u>	<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
Disinfectants & Disinfection By-Products							
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)							
Haloacetic Acids (HAA5) (ppb)	NA	60	17.94	NA	2004	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	9.72	NA	2004	No	By-product of drinking water disinfection
Inorganic Contaminants							
Arsenic (ppb)	0	50	2	NA	2004	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Fluoride (ppm)	4	4	1.2	NA	2004	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	4.4	NA	2006	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)		MPL	165	NA	2004	No	Erosion of natural deposits; Leaching
Radioactive Contaminants							
Alpha emitters (pCi/L)	0	15	5	NA	2003	No	Erosion of natural deposits
Inorganic Contaminants							
<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>
Copper - action level at consumer taps (ppm)	1.3	1.3	0.25	2005	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	8	2005	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Unit Descriptions							
<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.						

Important Drinking Water Definitions	
Term	Definition
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

Brook Lane Health Services conducts routine testing on your water system that is not included in the Water Quality Data Table. A list of these parameters and their results for 2006 are located 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 8.0	Standard Unit
Chlorine	0.2 to 2.8	ppm
Conductivity	706	uMho
Uranium – 234	4.74	pCi/L
Uranium – 235	0.127	pCi/L
Uranium - 238	2.06	pCi/L
Dibromochloromethane	0.7	ppb
Chloroform	1.2	ppb
Bromodichloromethane	1.1	ppb

Results of radon monitoring

On July 20, 1999, the Maryland Department of the Environment tested for radon in the Brook Lane Health Services Water System. The results of this testing was 250 pCi/L. Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when

released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air-containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

What Levels of Radon in my water should I be concerned about?

There are currently no federally enforced drinking water standards for Radon. EPA is proposing to regulate radon in drinking water from community water supplies (water systems that serve 25 or more year-round residents). EPA proposed the rule in October 1999 and plans to finalize in December 2004.

EPA is proposing to require community water suppliers to provide water with radon levels no higher than 4,000 pCi/L, which contributes about 0.4 pCi/L to the air in your home. This requirement assumes that the State is also taking action to reduce levels in indoor air by developing EPA approved enhanced State radon indoor air programs. (Called Multimedia Mitigation Programs). This is because most of the Radon you breathe comes from the soil under your home. This option gives the States flexibility to focus on the greatest problems. By encouraging the public to fix radon in indoor air problems and homes that keep radon from entering.

For States that choose not to develop enhanced indoor programs, community water systems in that State will be required to reduce radon in drinking water to 300 pCi/L. This amount contributes 0.03 pCi/L of radon in the air of your home. Even if a State does not develop enhanced indoor air program, water systems may choose to develop their own local indoor radon program and meet a radon standard for drinking water of 4,000 pCi/L.

EPA has set up this option, under the framework specified in the 1996 Amendments to the Safe Drinking Water Act, so that the overall risks from exposure to radon, both through air and water are reduced.

**For more information on the Brook Lane Health Services Water System
Contact Mr. Paul Gyurisim at (301) 733-0330**