



Annual Water Consumer Confidence Report

McGuire Drinking Water System on Joint Base McGuire-Dix-Lakehurst Public Water System ID No. 0326006

**Monitoring Period:
January 1, 2011 – December 31, 2011**

Is my water safe?

Yes. Last year, as in years past, the tap water in the McGuire water system met all U.S. Environmental Protection Agency (EPA) and NJ state drinking water health standards. Members of the Air Base Wing medical and mission support groups vigilantly safeguard water supplies and once again we are proud to report that our system is in full compliance with primary water quality standards. This report is being distributed to you, the consumer, to provide you with information to allow you to make personal health-based decisions regarding drinking water consumption. The report will provide you with definitions so you understand the material presented. Additionally, this report will provide you with the sampling data for the water system and discuss the health concerns for each contaminant detected in the system.

Where does my water come from?

Source of McGuire System Drinking Water: McGuire draws water from the Potomac/Raritan/Magothy (PRM) aquifer, a ground water source. Wells tap into the PRM aquifer at approximately 800-900 feet below the surface. Four wells (Well A, B, C, and D) are maintained by Civil Engineering Utilities. The well water is treated (filtered for iron, and chlorinated) before entering the system and then distributed across the base including the housing areas. McGuire's drinking water is monitored by two base agencies. Civil Engineering (87 CES/CEOIW) manages the maintenance and operations of the drinking water supply and distribution system, while Bioenvironmental Engineering (BE) Flight (87 AMDS/SGPB) checks the quality of the drinking water provided to consumers and also addresses any related health concerns. All monitoring follows EPA approved methods for sampling and laboratory analyses. BE personnel collect samples from the wells and water distribution system. These samples are then delivered to a State certified laboratory where water quality analyses are performed. To ensure your drinking water is of the highest quality, BE samples for approximately 100 possible contaminants. NJDEP has directed compliance sampling schedule requirements in two categories: 1) point of entry to the distribution system; and 2) distribution system monitoring requirements. The points of entry samples are collected at the individual wells and represent the quality of the source water. Representative samples of the water distribution system are also taken at different locations each week.

Source Water Assessments

The New Jersey Department of Environmental Protection (NJDEP) has prepared Source Water Assessment Reports and Summaries for all public water systems. Further information on the Source Water Assessment Program can be obtained by logging onto NJDEP's source water assessment web site at www.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at

(609) 292-5550. You may also contact your public water system through the Joint Base Public Affairs office, 87 ABW/PA, at (609) 754-2104.

Sources of Drinking Water Contamination

Sources of drinking water (both tap water and bottled water) may 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. Regulated substances that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;
- Organic chemical compounds, including synthetic and volatile organic compounds, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and
- Radioactive contaminants, which 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Table 1 summarizes the regulated analytes and monitoring frequencies for the wells (points of entry) and distribution system servicing the McGuire area.

Table 1 - Regulated Substances and Monitoring Frequencies

Regulated Substance	Frequency
Total Coliform, Free Available Chlorine, pH	Weekly
Nitrates	Annually
Trihalomethanes (TTHM)	Annually
Haloacetic Acids (HAA5)	Annually
Inorganics	Every 3 yrs
Secondary	Every 3 yrs
VOCs (Well A, D)	Every 3 yrs
VOCs (Well B)	Annually
VOCs (Well C-1)	Quarterly
Radiologicals (Well A, B, C-1, D)	Every 9 years
Lead and Copper	Every 3 yrs

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, radiological, volatile organic compounds, and synthetic organic compounds. Our system received monitoring waivers for asbestos, radiological, and synthetic organic compounds because prior samplings have demonstrated that these substances were not detected in our source 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).

Source Water Assessment Summary

A NJ state review of potential contamination sources near JB MDL has assessed a low rating for: pathogens, nutrients, pesticides, volatile organic compounds, inorganics, radon, disinfection byproduct precursors. Radionuclides were rated medium to low potential.

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 Water Drinking Hotline (800-426-4791).

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. Joint Base McGuire-Dix-Lakehurst (JB MDL) 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 drinking water, you may wish to have your water tested. Information on lead in drinking water is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

The water supplied to the McGuire system is tested for lead triennially and has a consistent history of low concentrations for the past 12 years. Lead testing in 2009 showed results of 2.6 parts per billion (ppb). This is almost 6 times lower than the action level of 15 ppb. Testing for Lead and Copper is scheduled to occur again in 2012.

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.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfectant By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5) (ppb)	NA	60	1.95	1.15	2.75	2011	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	2.95	0.55	13.8	2011	No	By-product of drinking water disinfection
Inorganic Contaminants								
Barium (ppm)	2	2	0.0468	ND	0.0468	2010	No	Discharge of drilling wastes; Discharge from metal
Chromium (ppb)	100	100	1.8	ND	1.8	2010	No	Discharge from steel and pulp mills; Erosion of natural
Selenium (ppb)	50	50	0.8	ND	0.8	2010	No	Discharge from petroleum and metal refineries; Erosion of
Sodium (optional) (ppm)		MPL	0.0048	ND	0.0048	2010	No	Erosion of natural deposits; Leaching
Lead and Copper								
Lead ²	0 ppb	A =15 ppb	2.6 ppb	NA		Jul 09	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper ²	1.3 ppb	AL=1.3 ppb	0.33 ppm	NA		Jul 09	No	Corrosion of household plumbing systems; erosion of natural deposits
Microbiological Contaminants								
Fecal coliform/E. coli - in the distribution system (positive samples)	0	0	0	NA		2011	No	Human and animal fecal waste

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
positive samples	positive samples/yr: The number of positive samples taken that year
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

How can I get Involved?

The Consumer Confidence Report was prepared by Joint Base Water Working Group members from the 87th Medical and Mission Support Groups and United Communities Housing Office. We welcome your questions and comments about the water quality from the McGuire system. Any questions regarding this report or the quality of McGuire tap water should be directed to the Public Affairs office at 754-2104, Bioenvironmental Engineering at 754-9057 or Civil Engineering at 562-2189. Copies of this report are available in the following locations: Base Library, United Communities Housing Office, Warfighter and Family Readiness Center, Medical Group's Bioenvironmental Office and Civil Engineering Offices.

The public website for the JBMDL installation posted links to the reports here:

<http://www.jointbasemdl.af.mil/consumerconfidencereports.asp>