



Hanscom Family Housing

2018

PWS ID: #3157001

REPORT ON WATER QUALITY

This report is a snapshot of the quality of the drinking water that we provided last year. The statistics in this report are based on testing done throughout 2018 and prior years. We hope you will find it helpful to know the sources of your water and the process by which safe drinking water is delivered to your home.

Where Does My Water Come From?

Hanscom Family Housing is considered to be a "consecutive" water supplier, that is, it receives its water from another public water supply. In this case, the Hanscom Air Force Base (PWS #3023002) supplies water from their sources which includes water purchased from the Massachusetts Water Resources Authority (MWRA). The water quality results for Hanscom Air Force Base and the MWRA (PWS #6000000) apply to Hanscom Family Housing, and are summarized in this report. We are pleased to announce that our system was a recipient of the Annual Public Water System Award for consecutive systems in 2016!

Opportunities to Participate

Any matters that concern your drinking water supply or issues you would like to see addressed can be presented at the regularly scheduled meeting of the trustees, association or board. If your concerns need immediate attention feel free to contact our current Certified Operator, WhiteWater, Inc., at 1-888-377-7678.

Maintaining Water Quality

Hanscom Family Housing continuously strives to produce the highest quality water possible to meet or surpass every water quality standard. We monitor the distribution system very closely. The standards we operate under were enacted by the U.S. Congress as the Safe Drinking Water Act in 1974 and were amended in 1986 and 1996.



It's Their Legacy

In order to ensure tap water is safe to drink, the

MassDEP and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Every Drop Counts



Hanscom Family Housing Promotes Water Conservation

WATER IS A PRECIOUS NATURAL RESOURCE

Hanscom Family Housing

The water system at Hanscom Family Housing is operated and maintained by WhiteWater, Inc. If you have any questions about this report, please contact Eric Burkett at 1-888-377-7678.

Additional copies of this report are available upon request and at



www.whitewateronline.com

Distribution System Characteristics of Hanscom Family Housing

This report summarizes only those items detected during sampling - not all contaminants that are monitored.

<i>Microbial Results</i>	Highest # Positive in a Month	MCL	MCLG	Violation	Possible Source of Contamination
Total Coliform Bacteria	0	1	0	No	Naturally present in the environment

Coliform are bacteria that are naturally present in the environment and are used to indicate that other, potentially harmful bacteria may be present. Your water source is tested monthly and has been found to be free of these contaminants.

<i>Lead & Copper</i>	Date(s) Collected	90 th Percentile of Sample	Action Level	MCLG	# of Sites sampled	# of Sites Above Action Level	Exceeds Action Level?	Possible Source of Contamination
Lead (ppb)	2016	2	15	0	20	0	No	Corrosion of household plumbing systems
Copper (ppm)		0.10	1.3	1.3			No	Corrosion of household plumbing systems

<i>Regulated Contaminants</i>	Date(s) Collected	*HQRAA	Range Detected	MCL	MCLG	Violation	Possible Source of Contamination
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Disinfection By-Products							
Total Trihalomethanes (TTHMs)(ppb)	Quarterly 2018	14	5.1-18	80	-	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)(ppb)	Quarterly 2018	16	11-20	60	-	No	By-product of drinking water disinfection
Residual Chlorine (ppm)	2018	1.95	1.55-2.20	4	4	No	Water additive used to control microbes

*HQRAA—Highest Quarterly Running Annual Average

Distribution System Characteristics of Hanscom AFB

<i>Microbial Results</i>	Highest # Positive in a Month	MCL	MCLG	Violation	Possible Source of Contamination
Total Coliform Bacteria	0	1	0	No	Naturally present in the environment

TESTING 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. **Hanscom Family Housing** 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>.

Key to Tables

- ppm – Parts per million, corresponds to one penny in \$10,000
- ppb – Parts per billion, corresponds to one penny in \$10,000,000
- pCi/L – Picocuries per liter (a measure of radioactivity)
- ND – Not detected
- n/a - not applicable
- RAA –Running annual average
- TT—Treatment technique

SOURCE WATER CHARACTERISTICS

The sources of drinking water in the United States (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, 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 contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. These contaminants can also come from gasoline storage, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Water Treatment

The water supplied to the Hanscom AFB is purchased from the Massachusetts Water Resources Authority (MWRA). The water comes from the Quabbin Reservoir and the Wachusett Reservoir. These reservoirs are protected naturally, and through MWRA and Metropolitan District Commission (MDC) water shed management. MWRA's licensed treatment operators treat the water through a process called primary disinfection. The water chemistry is adjusted to reduce corrosion of lead and copper from home plumbing. Fluoride is also added to reduce cavities. Ozone is added to kill microorganisms that may be present. Once the water enters the MWRA distribution system, it is treated with a mild and enduring disinfectant called chloramine. Hanscom AFB does not supplement the distribution systems with any additional treatment.

Summary of Finished Water Characteristics of the MWRA

<i>Regulated Contaminants</i>	Date(s) Collected	MCL or MRDL	Detected Level or Average	Range Detected	MCLG (Ideal Goal)	Violation	Possible Source of Contamination
Inorganic Contaminants							
Nitrate (ppm)	2018	10	0.09	0.05-0.09	10	No	Atmospheric deposition
Nitrite (ppm)	2018	1	0.006	ND-0.006	1	No	By-product of water disinfection
Barium (ppm)	2018	2	0.01	0.01-0.011	2	No	Common mineral in nature
Fluoride (ppm)	2018	4	0.70	0.31-0.78	4	No	Additive for dental health
Radioactive Contaminants							
Combined Radium (pCi/L)	2015	5	1.76	ND-1.76	0	No	Erosion of natural mineral deposits
Disinfectants and Disinfection By-Products							
Total Trihalomethanes (TTHMs)(ppb)	2018	80	16.4	7.13-21.0	-	No	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	2018	60	16.7	3.5-22.3	-	No	By-product of drinking water disinfection
Monochloramines (ppm)	2018	4 (MRDL)	2.08	0-3.8	-	No	Water disinfectant

SOME TERMS DEFINED

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

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

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

Secondary Maximum Contaminant Level (SMCL): *These standards are developed to protect the aesthetic qualities of drinking water and are not health based.*

Massachusetts Office of Research and Standards Guideline (ORSG): *This is the concentration of a chemical in drinking water, at or below which, adverse, non-cancer health effects are likely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.*

Total Coliform: *A bacteria that indicates other potentially harmful bacteria may be present.*

Unregulated Contaminants: *Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.*

90th Percentile: *Out of every 10 homes, 9 were at or below this level.*

Source Water Protection

The MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the MWRA. The report assesses the susceptibility of public water supplies to contamination and makes recommendations. This report is available from WhiteWater, Inc. located at 253B Worcester Road in Charlton, MA, and also at the MassDEP website: <http://www.mass.gov/eea/docs/dep/water/drinking/swap/nero/6000000.pdf>

A susceptibility ranking of **high** was assigned to all sources in our system by the MassDEP and they meet all US Environmental Protection Agency (EPA) and MassDEP drinking water quality standards.

Be assured that the Hanscom Family Housing in concert with its certified operator, WhiteWater, Inc., is addressing the concerns as stated in the SWAP Report and welcomes your input to our planning. If you have any questions, please contact WhiteWater, Inc., at 1-888 377-7678.

SHOULD SOME PEOPLE 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/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.

FOR YOUR INFORMATION

In order to ensure that tap water is safe to drink, the Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided to public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All 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 EPA's Safe Drinking Water Hotline (800-426-4791).

Where to go for more information

Massachusetts Department of Environmental Protection (MassDEP)

<http://www.mass.gov/eea/agencies/massdep/water/drinking/>



Cross Connection Control & Prevention

The outside water-tapping tap and garden hose tend to be the most common sources of cross connections



What is a cross connection?

A cross connection occurs whenever a potable drinking water line is directly or indirectly linked to a piece of equipment or piping containing non-potable water.

Why should I be concerned about cross connections?

An unprotected or inadequately protected cross connection in your home or workplace could contaminate the drinking water not only in your building, but in neighboring businesses and homes. Severe illnesses— even death— have been caused by cross connection contamination events that could have been prevented. Unprotected and inadequately protected cross connections have been known to cause outbreaks of hepatitis A, gastroenteritis, Legionnaire's disease, chemical poisoning, body lesions (from exposure through showering), damage to plumbing fixtures and explosions.

How can a cross connection contamination occur?

Non-potable water or chemicals used in equipment or a plumbing system can end up in the drinking waterline as a result of backpressure or backsiphonage. Backpressure occurs when the pressure in the equipment such as a boiler or air conditioning unit is greater than the pressure in the drinking water line.

Backsiphonage occurs when the pressure in the drinking water line drops due to fairly routine occurrences such as water main breaks, nearby fires, unusually heavy water demand. Contaminants are then sucked out and into the drinking water line.

What can I do to make sure my water supply is protected from cross connections?

At home:

- Contact your local water supplier to find out what he/she is doing to prevent cross connection contamination incidents.
- Survey your home to make sure you are not unknowingly creating a cross connection
- Do not attach any pesticide, chemical, or any other non-potable liquid applicators to your water line

- Install hose bibb vacuum breakers (HBVB) on all outside faucets. The HBVB isolates garden hose applications, protecting your drinking water supply from contaminants that could be drawn into your home through the hose.



At work:

- Contact your supervisor and/or maintenance personnel and find out if all cross connections within your workplace are protected.
- Find out when/if all backflow preventers have been tested.
- Ask your facility to provide you with information on its cross connection program.

In general:

- Find out all you can about cross connection control from DEP, your local water department, or a plumbing inspector.

For further information about our Cross Connection Control and Backflow Prevention Program please contact Russell Tierney at

Phone: 888-377-7678
Fax: 508-248-2895
Email: rtierney@rhwhite.com



Backsiphonage may occur due to a water main break or other low-pressure incident such as a fire.