

2024 Annual Drinking Water Quality Report

MWRA Bedford/Lexington – Hanscom AFB (Public Water System Identification (PWSID) #3023002)

This report is an annual summary of the drinking water quality provided by Hanscom AFB. Under the “Consumer Confidence Reporting Rule” of the Environmental Protection Agency’s (EPA’s) Safe Drinking Water Act (SDWA), community water systems are required to report water quality information to the consumers annually. Presented in this report is information on the source of our drinking water and where it comes from, its chemical composition and treatment, how its quality compares to state and federal standards, and the health risks associated with any contaminants present. If you are interested in opportunities for public participation in decisions that may affect the quality of the drinking water, please contact the personnel listed in Section I. Meetings occur on a semi-annual basis.

I. PUBLIC WATER SYSTEM INFORMATION

Address: Hanscom AFB

Contacts: Renata N. Welch (Civil Engineering) and Capt. Laura Russo (Bioenvironmental Engineering)

Telephone #: (781) 225-6142 and (781) 225-6366

Email Address: renata.welch@us.af.mil and laura.a.russo4.mil@health.mil

Water System Improvements:

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MassDEP) for compliance with Safe Drinking Water Regulations. Your water system is operated by a Massachusetts certified operator in the 66th Civil Engineering Division (CE) who oversees day-to-day operations and maintenance of our water system. Bioenvironmental Engineering (BE) in the 66th Medical Squadron continually monitors Hanscom’s water quality to provide safe drinking water to you.

II. YOUR DRINKING WATER SOURCE

The water supplied to Hanscom AFB is purchased from the adjacent towns of Lexington and Bedford. Both Lexington and Bedford receive their water from the Massachusetts Water Resource Authority (MWRA). Prior to 2020, Bedford received a small quantity of water from groundwater wells, however, these wells were shut down indefinitely on October 24, 2019.

The MWRA water comes from the Quabbin Reservoir, located approximately 65 miles west of Boston, and the Wachusett Reservoir, located about 35 miles west of Boston. Water is transported from the Quabbin Reservoir through the Wachusett Reservoir to a water treatment plant prior to distribution to MetroWest and Greater Boston communities, including Hanscom AFB.

The Quabbin and Wachusett watersheds are under state-wide protection and governance of MWRA and the Massachusetts Department of Conservation & Recreation (DCR). Over 85 percent of the watershed is comprised of forest and wetlands that help purify water as it flows across the land to the reservoirs. MWRA and DCR control land use and access to the watersheds. DCR patrols watersheds daily and MWRA scientists make sure the water quality in watersheds, streams, and reservoirs is tested regularly.

III. DRINKING WATER TREATMENT

The source water is treated at the John J. Carroll Treatment Plant in Marlborough, Mass. The facility services 51 communities in the greater Boston and the MetroWest areas and 3 in Central Massachusetts. The plant averages treatment of up to 275 million gallons of water daily and up to 405 million gallons on a peak day.

Water is treated with ozone to achieve primary disinfection followed by ultraviolet (UV) light used as a secondary disinfectant. Ozone provides better disinfection than chlorine alone and reduces formation of disinfection by-products. UV light is used to supplement ozone treatment to breakdown the DNA of bacteria, viruses, and other

pathogens. UV light also inactivates chemically resistant parasites such as *Cryptosporidium* and *Giardia*. The water chemistry is adjusted for corrosivity to minimize the potential for leaching of lead and copper in home plumbing systems. Fluoride is added to promote dental health. Before water enters the MWRA distribution system, chloramines are added as a secondary disinfectant to provide longer-lasting disinfection as water moves through pipes to consumers. Based on the levels of total chlorine leaving the MWRA facility, Hanscom AFB does not supplement the distribution system with any additional disinfectant. In the event of a water quality emergency, the **Hanscom Contingency Response Plan, APPENDIX 4 to Annex H**, will be implemented to provide adequate health and safety measures to water consumers.

IV. SUBSTANCES FOUND IN TAP WATER

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land or through the ground, it dissolves naturally occurring minerals present in media, and in some cases, even naturally occurring radioactive material. It can absorb substances both naturally occurring in the environment and derived from animals and/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 stormwater 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 agricultural or urban stormwater runoff, and residential uses.

Organic chemical contaminants - Including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants - Can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in drinking water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same level of 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 Safe Drinking Water Hotline at (800) 426-4791.

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 some 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 and Prevention guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

V. IMPORTANT DEFINITIONS

Haloacetic Acids-5 (HAA5) - a group of chemicals that are formed along with other disinfection byproducts when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water.

Maximum Contaminant Level (MCL) – the highest level of a contaminant in drinking water. MCLs are set as close to the Maximum Contaminant Level Goals (see below) 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 Disinfectant Level (MRDL) – The highest level of a disinfectant (chlorine, chloramines, chlorine dioxide) allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant (chlorine, chloramines, chlorine dioxide) 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.

Action Level (AL) – the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

90th Percentile – means that out of every 10 homes, 9 were at or below this level.

Treatment Technique (TT) – a required process intended to reduce the level of a contaminant in drinking water.

Total Trihalomethanes (TTHM) - a group of volatile and potentially toxic chemicals formed during water treatment with disinfectants, such as chlorine.

Variances and Exemptions – State or EPA permission not meeting an MCL or a treatment technique under certain conditions.

Secondary Maximum Contaminant Level (SMCL) – standards developed to protect the aesthetic qualities of drinking water which are not health based.

MWRA Level 1 Assessment – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

VI. WATER QUALITY TESTING RESULTS

EPA and state drinking water regulations require testing of water quality after treatment. MWRA performs necessary testing and even goes beyond federal and state standards with the frequency and sensitivity of tests. The EPA has identified 120+ contaminants which must be tested in drinking water. A complete list can be found at the www.mwra.com website. During 2024, the MWRA reported finding 7 EPA identified contaminants (listed in the Table 1) in the Hanscom AFB distribution system. None of the contaminant levels detected exceeded the EPA's MCLs. The link below hosts water quality testing results for the towns of Lexington and Bedford:

<https://www.mwra.com/annual/waterreport/2022results/2022results.htm>

Table 1. 2024 MWRA – Sampling Results

| Compound | Units | (MCL) Highest Level Allowed | (We Found) Detected Level – Average | Range of Detections | (MCLG) Ideal Goal | Violation | How It Gets in the Water |
|--------------------------|-------|--------------------------------------|---|------------------------|-------------------------|-----------|-----------------------------------|
| Barium | ppm | 2 | 0.008 | 0.008-0.009 | 2.0 | No | Common mineral in nature |
| Fluoride | ppm | 4 | 0.7 | 0.33 – 0.77 | 4.0 | No | Additive for dental health |
| Nitrate^ | ppm | 10 | 0.62 | 0.037 – 0.62 | 10.0 | No | Byproduct of disinfection |
| Radium - 226 | pCi/L | 5 | 0.82 | 0.82 | 0.0 | No | Erosion of natural deposits |
| Haloacetic Acids- 5 | ppb | 60 | 22.9 | 4.4 – 24.9 | NS | No | Byproduct of disinfection |
| Total Trihalomethanes | ppb | 80 | 26.3 | 7.9 – 24.4 | NS | No | Byproduct of disinfection |
| Monochloramine | ppm | 4-MRDL | 1.94 | 0.04 – 3.85 | 4.0 - MRDLG | No | Water disinfectant |

* KEY: MCL = Maximum Contaminant Level. The highest level of a contaminant allowed in water. MCLs are set as close to MCLGs as feasible using the best available technology. MCLG = Maximum Contaminant Level Goal. The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. 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. MRDLG = Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination. ppm = parts per million. ppb = parts per billion. NS = no standard. ND = non-detect. ^ = As required by DEP, the maximum result is reported for nitrate. Radium result from 2023.

Hanscom has one system interconnection with Bedford that is used to supply the Fam Camp. Bedford used to derive some of its drinking supply from the groundwater wells prior to 2020; however, since then all the water is sourced from MWRA and purchased from the town of Lexington, MA.

MWRA also tests reservoir source water for pathogens – such as fecal coliform, bacteria, viruses, and the parasites *Cryptosporidium* and *Giardia*. They can enter the water from animal or human waste. All test results were well within state and federal testing and treatment standards. If detected however, *Cryptosporidium* and *Giardia* can cause gastrointestinal illness, with symptoms that include diarrhea, nausea, and/or stomach cramps. People with severely weakened immune systems (that is, severely immuno-compromised) are likely to have more severe and more persistent symptoms than healthy individuals. Immuno-compromised individuals 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 EPA’s Safe Drinking Water Hotline (1-800-426-4791).

Hanscom AFB provides quality drinking water by maintaining the local distribution system, flushing the system, and testing regularly. Along with the routine water analysis performed by the MWRA, the base’s BE office monitors the temperature, chlorine, and pH levels at the time of samples collection. Samples are analyzed by an independent laboratory.

Bacteriological Testing: Hanscom AFB tests the quality of drinking water twice a month. In total eleven samples are collected across the base each month which are then tested for Total Coliform and Fecal Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. Testing conducted in August 2024 detected coliforms indicating the need to evaluate potential problems or irregularities in water distribution system. A coliform positive result from the laboratory is an alert to check for *E. coli*, which is a fecal coli form harmful to human consumption. The MCL (a permissible regulatory limit) for Hanscom AFB is 2 (two) positive coliform samples a month.

Four samples tested positive for total coliform in 2024, three in August and one in October (Table 2). No disease-causing bacteria (i.e., *E. coli*) was detected for the calendar year 2024.

Table 2: Hanscom AFB Total Coliform Results

| Contaminant | Highest # Positive in a Month | Dates | MCL | MCLG | Violation (Yes/No) | Possible source of contamination |
|----------------|-------------------------------|---|-----|------|--------------------|--------------------------------------|
| Total Coliform | 3 | 1x – 2 Aug 2024 2x – 6 Aug 2024 1x – 2 Oct 2024 | 1 | 0 | Yes | Naturally present in the environment |

Disinfection By-Products: Disinfection by-products (DBPs) are formed when disinfectants like chlorine interact with natural organic materials in water, such as in chlorinated drinking water and chlorine-treated swimming pools. DBPs can be found in the air during activities such as showering, bathing, dishwashing, and swimming. Chronic exposure to DBPs may increase the risk of cancer. Humans exposed to unusually high amounts of certain DBPs could experience liver issues and decreased nervous system functions.

Hanscom AFB samples for disinfection by-products on a quarterly basis in conjunction with reviewing the average chlorine levels (disinfection) in the distribution system and reports the results to MassDEP. All sampling results can be seen in Table 3. Note, none of the samples exceeded the MCL for both TTHM and HAA5 in calendar year 2024.

Table 3: Disinfection-by-Products Quarterly Sampling Results

| Sample Location | Sample Date | Quarter | TTHM (ppb) Results | MCL (ppb) | HAAS (ppb) Results | MCL (ppb) | Exceeded MCL? |
|----------------------|-------------|---------|--------------------|-----------|--------------------|-----------|---------------|
| Bldg. 1425 (Kitchen) | 12 Feb 2024 | Q1 | 9.8 | 80 | 5.1 | 60 | No |
| Bldg. 1425 (Kitchen) | 8 May 2024 | Q2 | 17.0 | | 9.2 | | No |
| Bldg. 1425 (Kitchen) | 8 Aug 2024 | Q3 | 18.0 | | 1.6 | | No |
| Bldg. 1425 (Kitchen) | 6 Nov 24 | Q4 | 8.45 | | 10.8 | | No |

PFAS & PFOA (Per- and Polyfluoroalkyl):**What are PFAS and PFOA substances and where do they come from?**

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have been used in a variety of industries and consumer products around the globe, including in the U.S., since the 1940s. PFAS have been used to make coatings and products that are used as oil and water repellents for carpets, clothing, paper packaging for food, and cookware. They are also contained in some foams such as aqueous film-forming foam, or AFFF, used for fighting petroleum fires at airfields and in industrial fire suppression processes. PFAS compounds are persistent in the environment, and some are persistent in the human body – meaning they do not break down and they can accumulate over time.

<https://www.epa.gov/sdwa/past-pfoa-and-pfos-health-effects-science-documents>

Is there a regulation for PFAS in drinking water?

In May 2016, the Environmental Protection Agency (EPA) established a lifetime health advisory (LHA) level at 70 parts per trillion (ppt) for individual or combined concentrations of perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). Both compounds are types of PFAS. On 10 April 2024, the EPA published new drinking water standards for certain PFAS under the Safe Drinking Water Act (SDWA). AF is reviewing the EPA's new rule now and will incorporate these standards into future sampling and analysis efforts.

Out of an abundance of caution, DoD pursued PFAS testing and response actions beyond EPA SDWA requirements. In 2020, the DoD established a policy to monitor drinking water for 17 PFAS compounds at all service owned and operated water systems. If results confirmed the drinking water contained PFOA and PFOS at individual or combined concentrations greater than 70ppt, water systems quickly took action to reduce exposures. While not a SDWA requirement, in 2023, DoD improved upon its 2020 PFAS drinking water monitoring policy by expanding the list of PFAS compounds monitored to 29, implementing continued monitoring of systems with detectable PFAS over the laboratory Method Reporting Limits (MRL), and requiring initial mitigation planning actions.

Has Hanscom AFB tested its water for PFAS?

Yes. Table 4 outlines all PFAS sampling completed for Hanscom AFB since 2015. All results have been below EPA requirements, and we are informing consumers that PFAS were not detected in the Hanscom AFB drinking water system. Drinking water testing results were below the Method Detection Limit (MDL) for all 29 PFAS compounds covered by the sampling method, including PFOA and PFOS. In accordance with current DoD policy, the water system will be resampled every two years for your continued protection. Sampling is due in the third quarter of 2025.

Table 4: Hanscom AFB PFAS/PFOA Sampling Results

| Date | Location | PFOS (ppt) | PFOA (ppt) | Total (ppt) | Exceeds 70 ppt MCL? |
|-------------|---------------|------------|------------|-------------|---------------------|
| 27 Oct 2015 | Bedford, MA | Non-Detect | Non-Detect | 0.00 | No |
| 17 Nov 2015 | Lexington, MA | Non-Detect | Non-Detect | 0.00 | No |
| 9 Nov 2021 | Bldg. 1118 | 0.81 | 1.3 | 2.18 | No |
| 9 Nov 2021 | Bldg. 1435 | 0.96 | 1.5 | 2.46 | No |
| 7 Mar 2023 | Bldg. 1315 | Non-Detect | Non-Detect | 0.00 | No |
| 7 Mar 2023 | Bldg. 1114 | Non-Detect | Non-Detect | 0.00 | No |
| 7 June 2023 | Bldg. 1305 | Non-Detect | Non-Detect | 0.00 | No |
| 7 June 2023 | Bldg. 1114 | Non-Detect | Non-Detect | 0.00 | No |
| 9 Sept 2023 | Bldg. 1305 | Non-Detect | Non-Detect | 0.00 | No |
| 9 Sept 2023 | Bldg. 1114 | Non-Detect | Non-Detect | 0.00 | No |
| 6 Dec 2023 | Bldg. 1305 | Non-Detect | Non-Detect | 0.00 | No |
| 6 Dec 2023 | Bldg. 1114 | Non-Detect | Non-Detect | 0.00 | No |

Fluoride: Hanscom AFB tests the fluoride levels twice a month at the eleven sites where bacteriological sampling is conducted. At low levels, fluoride can help prevent cavities but drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may cause tooth discoloration (dental fluorosis) as per EPA.

Drinking water containing more than 4 mg/L of fluoride (the MCL established by EPA can increase your risk of developing bone disease. Hanscom AFB's drinking water did not contain more than 2 mg/L of fluoride in 2024. A breakdown of average monthly results is summarized in Table 5, below.

Table 5: Hanscom AFB 2024 Fluoride Results

| Month | Average Fluoride Concentration (mg/L) | Exceeded SMCL (2.0 mg/L)? | Exceeded MCL (4.0 mg/L)? |
|-------|---------------------------------------|---------------------------|--------------------------|
| Jan | 1.40 | No | No |
| Feb | 0.85 | | |
| Mar | 0.80 | | |
| Apr | 0.80 | | |
| May | 0.90 | | |
| Jun | 0.80 | | |
| Jul | 0.79 | | |
| Aug | 0.87 | | |
| Sept | 0.88 | | |
| Oct | 0.75 | | |
| Nov | 0.82 | | |
| Dec | 0.79 | | |

Lead & Copper: Elevated lead levels can cause serious health problems, especially for pregnant women and young children. While most harmful to adolescents/children and adults with pre-existing conditions, lead also poses risks to healthy adults. Exposure symptoms include nausea, vomiting, diarrhea, stomach irritation, and headaches. Lead in drinking water typically comes from aging distribution and home plumbing systems.

Hanscom AFB employs a multi-faceted approach to minimize lead in its drinking water. The base sources water from the MWRA, which adjusts the water chemistry to reduce pipe corrosion and leaching. Hanscom AFB diligently maintains its distribution system, routinely flushing pipes to prevent water stagnation. Routine lead testing is conducted in accordance with MassDEP guidelines, and any locations exceeding action levels are promptly remediated. Furthermore, the base maintains records of plumbing materials and proactively plans for the replacement of aging infrastructure. Residents concerned about lead levels can request water testing from the Bioenvironmental Engineering office at any time. See contact information in Section I.

If you live off base, you share responsibility for protecting your family from potential lead exposure in your home. Since Hanscom AFB cannot control the plumbing materials used in off-base residences, you are encouraged to identify and remove any lead-containing materials in your home plumbing and take steps to minimize your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute

accredited certifier to reduce lead in drinking water. If you are concerned about lead in your home's water and wish to have your water tested, contact your town's board of health. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

Hanscom AFB tests for lead and copper triennially. In 2022, testing was conducted at 30 locations, including schools and childcare centers, throughout Hanscom AFB and the Fam Camp to determine compliance with established guidelines. The 90th percentile results for both lead and copper were below the EPA established action levels (Table 6) below. This puts our system in compliance with federal regulation requirements. The next lead and copper compliance sampling under the Lead and Copper Rule (LCR) is anticipated to start in September 2025.

Table 6: 2022 Hanscom AFB Lead and Copper Sampling Results

| Compound | Units | 90% Value (Action Level) | 90% Value | Range of Detected Levels | (MCLG) Ideal Goal | Violation (Yes/No) |
|----------|-------|--------------------------|-----------|--------------------------|-------------------|--------------------|
| Lead | mg/L | 0.015 | 0.0088 | 0.001 – 0.0671 | 0.0 | No |
| Copper | mg/L | 1.3 | 0.2160 | 0.0291 – 7.95 | 1.3 | No |

Additionally, two water samples were also collected and tested at the School Age Program locations (Bldg. 1994 & Bldg. 1999) in 2022. Both samples were non-detect for lead and below action limit (AL) of 1.3 mg/L for copper as shown in Table 7, below. The Department of Defense (DOD) requires all faucets at the Child Development center (Bldg. 1994) and Youth Center (Bldg. 1999) be tested initially to ensure that the facilities' water is lead free. These studies were initially accomplished in 2016, 2018, and 2019 as part of the Lead Contamination Control Act (LCCA). All locations that exceeded the action level initially for either lead or copper have been remediated at this time. The MassDEP (as per 310 CMR 22.06B (7)(a)9) requires collection of lead and copper samples from at least two schools (must rotate through the list of schools) every three years. Based on the continued sampling results, the School Age Programs at Hanscom AFB are on a reduced monitoring schedule that requires each location to collect and test two samples for lead and copper every three years. Next sampling is due to start in September 2025.

Table 7: Hanscom AFB School Age Program DOD Lead/Copper Sampling Results

| Sample Location | Sampling Date | Lead Results (mg/L) | Action Level (mg/L) | Copper Results (mg/L) | Action Level (mg/L) |
|---|---------------|---------------------|---------------------|-----------------------|---------------------|
| CDC (Bldg. 1994) – Rm #9 | 9/27/2022 | Non-Detect | 0.015 | 0.0291 | 1.3 |
| CDC (Bldg. 1994) – Kitchen | 9/27/2022 | Non-Detect | | 0.0663 | |
| School Age Program (Bldg. 1999) – Rm #7 | 9/27/2022 | Non-Detect | | 0.1380 | |
| School Age Program (Bldg. 1999) – Kitchen | 9/27/2022 | Non-Detect | | 0.1830 | |

In accordance with the EPA's Lead and Copper Rule Revisions (LCRR) Hanscom AFB completed and made publicly accessible its Service Line Inventory (SLI) in October 2024. The inventory identified 201 service lines, none of which were made of lead materials. Hanscom AFB submitted a "Certification of Non-Lead Service Lines & Request for Approval" (LCRR-NONLSL-CERT) form to MassDEP. Both documents can be accessed by contacting the personnel listed in Section I.

VII. COMPLIANCE WITH DRINKING WATER REGULATIONS

Does My Drinking Water Meet Current Health Standards? Hanscom AFB water conforms to all applicable health standards regulated by the state and federal government. Hanscom CE and BE are committed to providing you with the best water quality available through regular monitoring and corrective actions. In addition, Hanscom AFB has contingency plans in place to both notify and protect you in the event monitoring results indicate a potential concern.

Water Quality Exceedances during 2024:

Four samples tested in 2024 did not meet applicable detection standards for Total Coliform. As a result, base officials took the following corrective actions as part of the Level 2 Assessment:

The MassDEP was notified, additional samples were collected and analyzed for E. coli and total coliforms. The affected system segments were flushed daily by CE until coliform results cleared.

Health Effects Statements:

Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator of other potentially harmful bacteria that may be present. As noted previously, officials found coliforms in more samples than permissible, and this was a warning of potential problems. Upon identifying coliforms, officials analyzed the same samples for harmful bacteria (E. coli) and no detections were reported. Therefore, there were no potential health effects due to this issue.

VIII.

EDUCATIONAL INFORMATION

Frequently Asked Questions:

Q. How would I know about a problem with the water supply?

A. BE and CE Water Utilities regularly test and inspect the water supply and the distribution system. If a problem were found, all affected people would be notified via leaflets, email, and the base website. BE works with CE to ensure that all drinking water is turned over routinely in all buildings as outlined in the installation flushing plan.

Q. My water tastes and smells funny. Is it safe to drink?

A. According to MWRA, you can safely drink and cook with the water. Algae can cause water to have a “funny” smell and odor. Algae are normal, harmless plants that appear in the reservoirs at certain times of the year. On occasion, customers may also taste or smell the low levels of chlorine compounds added to disinfect the water. Fill a jug with tap water and put it in the refrigerator to get rid of the taste and odor.

Q. My water is cloudy sometimes but then clears up. Can I drink it?

A. According to MWRA, you can safely drink and cook with the water. Water travels under pressure throughout the system which causes air bubbles to get trapped under water leading to cloudy water, also known as white water. Occasionally, air can become trapped in the water in tiny bubbles causing water to look cloudy. This is only temporary, and the water should clear up in a short time.

Q. My water is discolored. Can I drink it?

A. According to MWRA, you can safely drink and cook with the water. Old iron pipes in your building can cause a red, brown, or yellow color in the water. A yellow color is from iron that is absorbed by water that has been sitting in pipes for a long time. A red or brown color is caused by very small specks of iron. These specks of iron can enter the water if there is a quick change in water speed or direction in your local pipes. Such changes can result from valve repair, flushing the system, or the testing and use of fire hydrants.

Cross-Connection Control and Backflow Prevention:

A critical component of Hanscom AFB’s commitment to providing safe drinking water is the implementation of a Cross-Connection Control Program, which requires the cooperation of all water users.

Understanding Cross-Connections

A cross-connection is defined as any actual or potential connection between a potable water system and a non-potable source. Such connections can create a pathway for contaminants to enter the drinking water supply.

The Risk of Backflow

Backflow, the reversal of water flow, can occur due to:

- Back Pressure: When pressure from a non-potable source exceeds the pressure in the potable water system.
- Back Siphonage: When a reduction in system pressure creates a vacuum, drawing contaminants into the potable water system.

The introduction of contaminants through backflow poses a potential risk to public health and water quality.

Preventing Cross-Connections

To protect its water supply, Hanscom AFB employs a comprehensive cross-connection control program. This includes maintaining a complete inventory of cross-connections and backflow preventers on the base, installing backflow preventers at all potential cross-connection locations, and conducting routine testing of all backflow preventers.

As a water user, you play a vital role in preventing cross-connections. Please adhere to the following guidelines:

- Avoid submerging hoses or faucets in water.
- Utilize appropriate backflow prevention devices, such as hose bibb vacuum breakers (HBVBs), when using garden hoses.
- Identify and report potential unprotected cross-connections at your facility to CE.

If you have any questions or concerns about anything contained in this report, please contact one of the following numbers for assistance. Hanscom AFB does not hold regularly scheduled board meetings for public participation in decisions that may affect the quality of the drinking water.

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|---|----------------|
| Hanscom AFB Bioenvironmental Engineering | (781) 225-6366 |
| State of Massachusetts Water Resource Authority | (617) 242-5323 |
| Environmental Protection Agency Safe Drinking Water Hotline | (800) 426-4791 |
| Hanscom AFB Public Affairs Office | (781) 225-1686 |
| Town of Bedford Department of Public Works | (781) 275-7605 |
| Town of Lexington Department of Public Works | (781) 274-8300 |

Additional information can be obtained by viewing the following websites:

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| http://www.mwra.state.ma.us |
| http://www.mass.gov/water-supplier-operations |
| Source water assessment reports for the MWRA: http://www.mwra.com/sourcewater.html |