

2024 Consumer Confidence Report (CCR)
Annual Water Quality Report

BROOK VILLAGE CONDOMINIUMS
BOXBOROUGH, MA
PWS ID #2037007

We are pleased to present to you our Annual Drinking Water Quality Report, also known as the Consumer Confidence Report. This report, a requirement of the 1996 amendments to the Safe Drinking Water Act, is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Water Source

Brook Village Condominiums is located in Boxboro, MA and receives its water from three bedrock wells. There are two wellhouses, the Swanson and Spencer Wellhouses. The larger of the two wellhouses contains treatment and pumping equipment for all three of our wells after they have been manifolded together. It also protects a 15,000-gal. steel atmospheric storage tank located in the basement and covered by earth. The apartment complex uses an average of 7 million gallons per year.

Our water system makes every effort to provide you with safe and pure drinking water. To improve the quality of the water delivered to you, we treat it to remove several contaminants. Brook Village Condominiums' water contains elevated levels of sediment, iron, manganese and hardness which is a common occurrence in New England. Sediment, iron and manganese are nuisance parameters that will cause discoloration of plumbing fixtures and clothes. Hard water is undesirable because it prevents soap from cleaning efficiently. An insoluble residue (scale) is deposited inside pipes, boilers and hot water tanks, reducing efficiency and length of service. To improve water quality, the water from the two Swanson pump house wells (01G and 02G) are manifolded together and go to the Spencer treatment building. The Spencer well (03G) combines with the Swanson line inside the basement of the Swanson treatment room. The combined line is injected with sodium hypochlorite (for iron and manganese oxidation), prior to the two green sand filters that are in parallel. Treated water then goes into a 15,000 gallons storage tank then the two booster pumps, pump to distribution. The water quality of our system is constantly monitored by us and the MassDEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required.

White Water, Inc. provides Brook Village with contract operation services. The contract operation includes the services of a state certified operator who monitors the water system for compliance with all state and federal drinking water regulations. The operating contract also includes services such as making emergency repairs when needed, making recommendations for improving water quality and increasing system reliability.

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 888-377-7678.

Source Water Assessment

The MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source serving the Brook Village Condominiums. The report assesses the susceptibility of public water supplies to contamination and makes recommendations. This report is available from the MassDEP website: <http://www.mass.gov/eea/docs/dep/water/drinking/swap/cero/2037007.pdf>. If you have any questions, please contact WhiteWater, Inc., at 888 377-7678. A susceptibility ranking of **moderate** was assigned to all wells in our system by the MassDEP and they meet all US Environmental Protection Agency (EPA) and MassDEP drinking water quality standards.

Additional source water assessment information can be found at the Environmental Protection Agency's website: <https://www.epa.gov/sourcewaterprotection/source-water-assessments>.

Source Water Protection

Source water is untreated water from streams, rivers, lakes, or underground aquifers that is used to supply public drinking water. Preventing drinking water contamination at the source makes good public health, economic, and environmental sense. You can be aware of the challenges of keeping drinking water safe and take an active role in protecting drinking water. There are lots of ways that you can get involved in drinking water protection activities to prevent the contamination of the ground water source: dispose properly of household chemicals, help clean up the watershed that is the source of your community's water, attend public meetings to ensure that the community's need for safe drinking water is considered in making decisions about land use, etc. Contact our office for more information on source water protection or contact the Environmental Protection Agency (EPA) at 1.800.426.4791. You may also find information on EPA's website at <https://www.epa.gov/sourcewaterprotection>.

Water Quality

Brook Village routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table shows any detection resulting from our monitoring for the period of January 1 to December 31, 2024. It is important to remember that the presence of these contaminants does not necessarily pose a health risk.

The sources of drinking water include rivers, lakes, ponds, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from human or animal activity. All sources of drinking water are subject to potential contamination by substances that are naturally occurring, or manmade. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, 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** 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, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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, U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the number of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The table below lists all the drinking water contaminants that were detected throughout water quality monitoring and testing. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk.

Test Results						
<i>Unless otherwise noted, testing was done in 2024.</i>						
<i>Unless otherwise noted, the highest concentration of each contaminant that was collected has been reported.</i>						
Contaminant	Violation (Y/N)	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria	N	0	highest number of positive samples (monthly)	Absent	1 positive	Naturally present in the environment.
Inorganic Contaminants						
Barium (6/20/2024)	N	0.061	mg/L	2	2	Erosion of natural deposits.
Nitrite (04/15/2024)	N	<0.05	mg/L	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrate (04/15/2024)	N	0.29	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Perchlorate (7/2/2024)	N	0.100	ppb	-	2	Rocket propellants, fireworks, munitions, flares, blasting agents
Sodium (6/20/2024)	N	196	mg/L	20	-	Erosion of natural deposits, urban storm runoff.
Chloride (03/26/2024)	Y	479	mg/L	250	250	Erosion of natural deposits; storm water runoff containing road salt.

Contaminants including Pesticides & Herbicides						
Synthetic Organic Compounds (SOCs) (6/20/2024)	N		ug/L			Herbicides, pesticides, and other chemicals that come from agriculture, urban storm water runoff, or industrial, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
Organic Chemicals (VOCs) (6/14/2024)	N	See results listed below; all others not listed resulted non-detect.	ug/L			
Bromodichloromethane (6/14/2024)	N	1.1	ug/L			Parameter included in Organic Chemicals (VOCs).
Bromoform (6/14/2024)	N	0.8	ug/L			Parameter included in Organic Chemicals (VOCs).
Chloroform (6/14/2024)	N	0.43	ug/L			Parameter included in Organic Chemicals (VOCs).
Dibromochloromethane (6/14/2024)	N	1.9	ug/L			Parameter included in Organic Chemicals (VOCs).
Radioactive Contaminants						
Radium 226 & 228 (combined) (6/14/2024)	N	1.0±0.6	pci/L	0	5	Erosion of natural deposits.
Gross Alpha (6/14/2024)	N	7.0±2.2	pci/L	0	15	Erosion of natural deposits.
Disinfection Byproducts						
Total Haloacetic Acids (HAA5) (8/24/2023)	N	3.6	ug/L	0	60	A byproduct of drinking water chlorination.
Total Trihalomethanes (TTHMs) (8/24/2023)	N	7.7	ug/L	0	80	A byproduct of drinking water chlorination.
Secondary Contaminants						
Iron (6/20/2024)	N	0.039	mg/L	0.3 SMCL	-	Natrually occurring, corrosion of cast iron pipes

Manganese (Quarterly 2024)	N	ND-121	ppb	50 SMCL	300 ORSG	Erosion of natural deposits, leaching from plumbing materials
<p>Manganese is a naturally occurring mineral found in rocks, soil and groundwater and surface water. The USEPA and MassDEP have set an aesthetics-based Secondary Maximum Contaminant Level (SMCL) for manganese of 0.05 mg/L (50 micrograms per liter (ug/L) or 50 parts per billion (ppb)). At levels, greater than 0.05 mg/L, the water may appear brown, taste unpleasant and may leave black stains on bathroom fixtures and laundry. While manganese is part of a healthy diet, it can be harmful if consumed in large concentrations.</p> <p>EPA has also set a health guideline for lifetime exposure to manganese in drinking water of 0.3 mg/L (300 ppb). EPA considered this level to be a protective limit for adults from potential neurological effects over a lifetime of exposure. For short-term 10-day exposures, EPA advises that levels in drinking water be below 1 mg/L (100 ppb). Infants and children less than 3 years of age should consume drinking water with manganese levels below 0.3 mg/L (300 ppb), or preferably as low as possible. This recommendation is based on concerns about effects to the nervous system that are more likely to occur in younger children, and because formula-fed infants/children already receive adequate manganese as an added essential nutrient in their formula. Formula fed infants or children may consume more manganese than the rest of the family if the manganese fortified formula is prepared with water that also contains manganese. In addition, young children appear to absorb more but excrete less manganese than older children. See: http://www.epa.gov/safewater/ccl/pdfs/reg_determine1/support_cc1_magnese_dwreport.pdf.</p>						

Unregulated Contaminants						
Contaminant	Violation (Y/N)	Level Detected	Unit Measure ment	MCLG	MCL	Likely Source of Contamination
PFAS6 (Quarterly 2024) Per- and polyfluoroalkyl substances are a large, complex group of synthetic chemicals used in various consumer products.	Y	34-48.2	ng/L	-	20	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil-resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foams. Erosion of household plumbing systems.
<p>Health Effects for PFAS: Some people who drink water containing these PFAS in excess of the MCL may experience certain adverse effects. These could include effects on the liver, blood, immune system, thyroid, and fetal development. These PFAS may also elevate the risk of certain cancers.</p>						

Lead & Copper – Last sampled in 2024						
Contaminant	Violation (Y/N)	Level Detected	Unit Measurement	MCLG	AL	Likely Source of Contamination
Lead – 90 th Percentile	N	7.5	ppb	0	15	Corrosion of household plumbing systems.
Copper – 90 th Percentile	N	0.185	mg/L	1.3	1.3	Corrosion of household plumbing systems.
Range of results for lead samples collected: ND-9.04 ppb Number of sites exceeding lead action level: 0 Range of results for copper samples collected: 0.0344-0.229 mg/L Number of sites exceeding copper action level: 0						

**Note: the state allows us to monitor for some contaminants less than once a year because the concentrations of these contaminants do not change frequently. Not all contaminants are tested for every year due to monitoring waivers and therefore we use the most recent round of sampling. Some of the data presented is more than one year old, however, is limited to no older than five years.*

Units of Measurement:

Parts per million (ppm) or Milligrams per liter (mg/L)	A measurement that corresponds to one minute in two years, or a single penny in \$10,000.
Parts per billion (ppb) or Micrograms per liter (µg/L)	A measurement that corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
Picocuries per liter (pCi/L) or Micrograms per liter (µg/L)	Measurements of radioactivity in water.
Millirems per year (mrem/year)	A measurement of radiation absorbed by the water.
Nephelometric Turbidity Unit (NTU)	A measurement of the clarity of water; turbidity more than 5 NTU is just noticeable to the average person.
Million fibers per liter (MFL)	A measurement of the presence of asbestos fibers that are longer than 10 micrometers.

Definitions:

Action Level (AL)	the concentration of contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Treatment Technique (TT)	a required process intended to reduce the level of a contaminant in drinking water.
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.

Maximum Contaminant Level (MCL)	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.
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 allowed in drinking water; there is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG)	the level of 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.
Running Annual Average (RAA)	the average of all monthly or quarterly samples for the last year at all sample locations.
Non-Detect (ND)	the specified contaminant was not detected.
Level 1 Assessment	a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria has been found in the water system.
Level 2 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 has been found in the water system on multiple occasions.

IMPORTANT INFORMATION

- Lead & Copper:** Samples are generally collected, and action levels measured at the consumer's tap. 90% of the tests for a given system must be equal to or below the action level; therefore, a section of the results above has been calculated and are listed as the 90th percentile.
- Lead:** **Major sources in drinking water:** corrosion of household plumbing systems; erosion of natural deposits.
Health effects statement: Infants and children who drink water containing lead more than the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink water containing lead more than the action level over many years could develop kidney problems or high blood pressure.
- Copper:** **Major sources in drinking water:** corrosion of household plumbing systems; erosion of natural deposits.
Health effects statement: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper more than the action level over many years could, suffer liver or kidney damage. People with Wilson's Disease should consult their doctor.
- Arsenic:** The United States Environmental Protection Agency (US EPA) adopted the new MCL standard of 10ppb in October 2001. Water systems were required to meet this new standard by January 1 2006.

Total Coliform:	Reported as the highest monthly number of positive samples for water systems that take less than 40 samples per month. Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria, may be present.
Turbidity:	Turbidity has no health effects, however, can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms, that can include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

As you can see by the table, our system had no violations. We are proud that your drinking water meets all Federal and State requirements. The EPA has determined that your water IS SAFE at these levels.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1 (800) 426-4791.

For most people, the health benefits of drinking plenty of water outweigh any possible health risk from these contaminants. However, 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/Center of Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1 (800) 426-4791.

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. Brook Village Condominiums is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce 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 water and wish to have your water tested, contact WhiteWater at 888-377-7678. 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>.

LEAD SERVICE LINE INVENTORY (SLI)

In October 2024 MassDEP approved our request to release a statement that our system has no service lines of Lead, Galvanized Requiring Replacement (GRR) or unknown materials. For information on all service lines in our water system, contact WhiteWater at 888-377-7678.

CROSS CONNECTION CONTROL & PREVENTION

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 work place 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?

- 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.

We, at Brook Village, work hard to provide top quality water to every tap. Water is a limited resource, so it is vital that we all work together to maintain it and use it wisely. We ask that all our customers help us protect and preserve our drinking water resources, which are the heart of our community, our way of life, and our children's future. Please contact us with any questions. Thank you for working together for safe drinking water.