



Millbury Industrial Park & Park Hill Village 2021

PWS ID: #2186001

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 2021 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?

The Millbury Industrial Park & Park Hill Village is a public water supplier that is considered a "consecutive" water supplier, that is, we receive our water from another public water supply. In our case, the City of Worcester, MA (PWS# 2348000) supplies us with water from their sources. Their test results for all source water sampling are directly applicable to us. However, we are responsible for sampling and analyzing for coliform bacteria, as well as lead and copper in our distribution system. The statistics distributed in the City of Worcester's Consumer Confidence Report (CCR) are shown here and based on testing done throughout 2021 and prior years.

Our water system consists of two sections, the Millbury Industrial Park which consists of twelve commercial lots and the adjacent Park Hill Village which consists of nineteen residential lots. Water for the Millbury Industrial Park is purchased from the City of Worcester and then the water for Park Hill Village is purchased through the Millbury Industrial Park. Each residence is individually metered.

City of Worcester's Water Sources

Worcester obtains its drinking water from ten surface water sources, or reservoirs, located outside of the City. The watershed for these reservoirs covers 40 square miles with a water capacity of 7.4 million gallons. They include: The Lynde Brook Reservoir, Kettle Brook Reservoir No. 1 and No. 2 in Leicester; the Kettle Brook Reservoir No. 3 in Leicester and Paxton; the Kettle Brook Reservoir No. 4 in Paxton; the Holden Reservoir No. 1 and No. 2 as well as the Kendall Reservoir in Holden; the Pine Hill Reservoir in Paxton, Holden, and Rutland; and the Quinapoxet Reservoir in Holden and Princeton.

In addition to these 10 active reservoirs the City has two wells, the Coal Mine Brook Well on Lake Ave North in Worcester and the Shrewsbury Well off Holden Street in Shrewsbury. Both wells are inactive but could be used in an emergency. Emergency water supplies are also available at Wachusett Reservoir and the Quabbin Aqueduct.

Maintaining Water Quality

Millbury Industrial Park & Park Hill Village continuously strives to produce the highest quality water possible to meet or surpass every water quality standard. We monitor our 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.

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.

Water Quality



It's Their Legacy

Millbury Industrial Park

The water system at Millbury Industrial Park & Park Hill Village is operated and maintained by WhiteWater, Inc. If you have any questions about this report, please contact WhiteWater at 1-888-377-7678.

Additional copies of this report are available upon request and at www.whitewateronline.com



Distribution System Characteristics of Millbury Industrial Park & Park Hill Village

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

Microbial Results	Highest # Positive in a Month	Total # Positive	MCL	MCLG	Violation	Possible Source of Contamination
Total Coliform	0	0	1	0	Yes	Naturally present in the environment

Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Your water source is tested monthly and has been found to be free of these contaminants.

Lead & Copper	Date(s) Collected	90th Percentile of Sample	Action Level	MCLG	# of Sites sampled	# of Sites Above Action Level	Exceeds Action Level?	Possible Source of Contamination
Lead (ppb)	2021	0	15	0	10	0	No	Corrosion of household plumbing systems
Copper (ppm)		0.085	1.3	1.3			No	Corrosion of household plumbing systems

Regulated Contaminants	Date(s) Collected	Highest Quarterly Running Annual Average	Range Detected	MCL	MCLG	Violation	Possible Source of Contamination
Disinfection By-Products							
Haloacetic Acids (HAA5) (ppb)	2021	9.89	3.4-6.6	60	-	No	By-product of drinking water chlorination
Total Trihalomethanes (ppb)	2021	55.5	40-59	80	-	No	By-product of drinking water disinfection

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. **Millbury Industrial Park & Park Hill Village** 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>.

SOURCE WATER CHARACTERISTICS

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

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.

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.

City of Worcester's Water Treatment

Protecting the sources of water is not enough to assure that your tap water is safe to drink. Both natural and manmade contaminants can still enter even the most well-protected water supply. Water treatment is necessary as the second barrier of protection.

During 2021, water from Worcester's reservoirs was treated at the Worcester Water Filtration Plant, which began operating in 1997 and has continually produced water that fully complies with Federal and State drinking water standards. In calendar 2020, the Water Filtration Plant treated 7,845,390,406 gallons of water using the following processes:

Ozonation using ozone generated on-site to disinfect and break down organic matter making the water more efficiently filtered. This is the most effective disinfectant for the parasites *giardia* and *cryptosporidium*.

Coagulation & Flocculation using cationic polymer and alum to make tiny particles in the water stick together to form larger particles, which can be trapped in the filters.

Direct Filtration to remove particles from the water using a coal and sand filter.

pH Adjustment with lime (Calcium Oxide) to make the water less acidic and less corrosive.

Disinfection with chlorine to kill bacteria and other microorganisms.

Corrosion Control with blended phosphate corrosion inhibitor to make the water less corrosive so that lead and copper found in household plumbing and iron found in water mains does not dissolve in the water.

Summary of Finished Water Characteristics of the City of Worcester

Microbiological	Date(s) Collected	Total # Positive	MCL		MCLG	Violation	Possible Source of Contamination
<i>E. coli</i>	2021	0	Determined upon additional repeat testing		0 positive	No	Human and animal fecal waste
Turbidity	Date(s) Collected	Maximum Turbidity Measured	Lowest Monthly % of Measurements Below Turbidity Limit	Number of Measurements Greater-Than 1.0 NTU	Violation	Turbidity Limits (Combined for all filters) NTU = Nephelometric Turbidity Units	Possible Source of Contamination
Turbidity (NTU) (Combined for all filters)	2021	0.289 NTU	100%	0	No	Less than or equal to 0.3 NTU in 95% of monthly measurements; No measurement can exceed 1.0 NTU	Soil runoff.
Regulated Contaminants	Date(s) Collected	Highest Detect Value	Range Detected	MCL	MCLG	Violation	Possible Source of Contamination
Inorganic Contaminants							
Barium (ppm)	2018	0.01	n/a	2.0	2.0	No	Erosion of natural deposits
Fluoride (ppm)	2021	0.038	n/a	4.0	4.0	No	Water additive, promotes healthy teeth
Nitrate (ppm)	2021	0.01	n/a	10	10	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Radioactive Contaminants							
Gross Alpha Emitters (pCi/L)	2016	0.56	n/a	15	0	No	Erosion of natural deposits
Unregulated Contaminants	Date(s) Collected	Result or Range Detected	Average	SMCL	ORSG or Health Advisory	Possible Source of Contamination	
Inorganic Contaminants							
Nickel	2016	0.001	n/a	-	0.1	Discharge from industrial processes	
Sodium (ppm)	2021	16	n/a	-	20	Natural sources; runoff from use as salt on roadways; by-product of treatment process	
Secondary Contaminants							
Manganese* (ppb)	2019	15	n/a	50	300*	Erosion of natural deposits	

*US EPA and MassDEP have established health advisory levels for manganese to protect against concerns of potential neurological effects.

Sodium is a naturally-occurring common element found in soil and water. It is necessary for the normal functioning of regulating fluids in human systems. Some people, however, have difficulty regulating fluid volume as a result of several diseases, including congestive heart failure and hypertension. The guideline of 20 mg/L for sodium represents a level in water that physicians and sodium sensitive individuals should be aware of in cases where sodium exposures are being carefully controlled. For additional information, contact your health care provider, your local board of health or the Massachusetts Department of Public Health, Bureau of Environmental Health Assessment at 617-624-5757.

Source Water Protection

The MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source serving the Millbury Industrial Park & Park Hill Village. 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/2348000.pdf>.

Overall, Worcester's water supplies are considered **highly** susceptible to contamination.

The first barrier of protection for any water supply system is to have clean sources of water. To protect surface water supply one must control the land within the watershed surrounding the supply. Worcester has maintained very strict control over the land it holds for water supply protection. However, not all of the land in Worcester's watershed is owned or controlled by the City. On some of those privately owned lands activities occur that could pose a threat to water quality in the reservoirs. The potentially threatening land uses include: dairy farms, live-stock operations, manure spreading or storage, pesticide storage and use, railroad tracks, aquatic wildlife, landfills and dumps, power line rights of way, stormwater discharges, highways and roadways.

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/>

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.

Cross Connection Control and Backflow Protection in your water system



Typical Hose Bibb Vacuum

A Cross Connection means any actual or potential physical connection or arrangement between a pipe conveying potable water from a public water system and any non-potable water supply, piping arrangement or equipment including, but not limited to, waste pipe, soil pipe, sewer, drain, other unapproved sources. Millbury Industrial Park & Park Hill Village recommends the installation of Hose Bibb type vacuum breakers on all outside faucets. This will protect all residents from the potential of backflow into their homes and the potable water system from a hose connection. Studies have shown that hoses are the most commonly unprotected cross connection. The MassDEP and Millbury Industrial Park & Park Hill Village require the physical separation between the public water supply to your home and a private well used for irrigation or other purposes, these instances will be monitored for compliance. For more information please contact WhiteWater at 888-377-7678.