Town of Whitman, Massachusetts

2022 Annual Water Quality Report

The Whitman Water System is overseen by the Water and Sewer Department within the Department of Public Works (DPW). Please call the DPW at **781-447-7630** with any question, concerns, or problems regarding water meters, leaks, water main breaks, fire hydrants, billing, or water quality. Our staff is there to assist you:

Superintendent Public Works
Dennis Smith

Board of Commissioners
Kevin Cleary
Mark Poirier
Kenneth Lailer
David Cook
Joseph Iannone

In addition, the Board of Public Works (Water Commissioners) typically meets at 100 Essex Street on the first and third Tuesdays of each month. Please contact the Department of Public Works regarding the meeting schedule. Supplemental information about drinking water quality and potential health effects can be obtained by calling the Environmental Protection Agency's **Safe Drinking Water Hotline: 1-800-426-4791.** Useful information can also be found on MassDEP's website (http://www.mass.gov/dep/) or the Town's website (https://www.whitman-ma.gov).

The Whitman Water and Sewer Department is proud to provide you with the Year 2022 Annual Water Quality Report. Our objective is to help keep you abreast of ongoing and upcoming water system projects; local, state and federal drinking water regulations; and Whitman's annual water quality results. We are dedicated to supplying safe drinking water to all of our residents. The identification number for the Whitman Water System is 4338000.

Water System Information

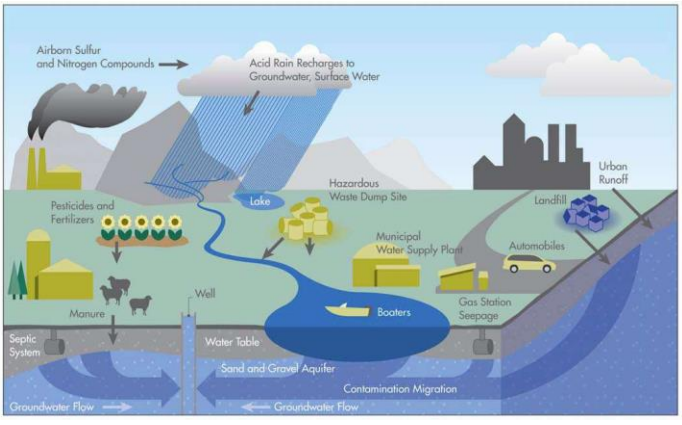
The Department of Public Works, Water and Sewer Department, supplies the Town of Whitman with drinking water from the City of Brockton's water system (PWS ID 4044000). The City of Brockton treats surface water from Silver Lake at the Silver Lake Water Treatment Plant (WTP). Silver Lake is located in the Town of Pembroke approximately 10 miles southeast from the center of Whitman. The Silver Lake WTP employs activated carbon filtration with coagulation, flocculation and sedimentation to remove particles and organic matter. Chlorine is used to disinfect the water prior to entering the distribution system.

The Silver Lake reservoir (4044000-01S) can be supplemented with water from Furnace Pond in Pembroke and Monponsett Pond in Halifax. Pine Brook is an emergency source and can be temporarily diverted to Silver Lake with approval from the Massachusetts Department of Environmental Protection (MassDEP) under a Declaration of Water Emergency. The Pine Brook diversion has only been used once since 1986. The safe yield of the Silver Lake reservoir system is 9.5 million gallons per day (MGD). The City of Brockton water system also treats surface water from the Brockton Reservoir (4044000-02S), which has a safe yield of 0.9 MGD, and purchases desalinated water from the Aquaria Water Treatment Plant in Dighton, MA.

Treated water from the Silver Lake WTP is transmitted through two (2) 24-inch diameter mains to the Brown's Crossing Pumping Station, which pumps water through one (1) 36-inch diameter and two (2) 24-inch diameter transmission mains to the Brockton and Whitman water systems. The connections to the Whitman Water System are located on Temple Street at the Brockton line (12" connection) and on Bedford Street at Peaceful Meadows (16" connection).

In the year 2022, Whitman Water and Sewer Department purchased 312.95 million gallons of water from the Brockton Water Department.

The MassDEP has prepared a Source Water Assessment Program (SWAP) Report for Brockton's water supply sources described above. The SWAP report indicated a high susceptibility to contamination for Silver Lake because of current land uses which include residential fuel oil storage, landscaping practices and septic systems and a high susceptibility to contamination from aquatic wildlife, transportation corridors, and transmission lines. Residents can help protect sources by taking hazardous household chemicals to hazardous materials collection days, and by limiting the use of pesticides and fertilizer. The complete SWAP report is available for your review at the Water and Sewer Department and the Board of Health. Alternately, it can be obtained online from Massachusetts DEP website:



http://mass.gov/eea/docs/dep/water/drinking/swap/sero/4044000.pdf.

Public Health Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contamination. 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 (1-800-426-4791). 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 infants can be particularly at risk from infections. These people should seek advice 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 (1-800-426-4791).

Sources of drinking water (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, 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, and farming.
Pesticides and herbicides may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
Organic chemical contaminants include e synthetic and volatile organic chemicals that 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.

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. Whitman 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*.

In order to ensure that tap water is safe to drink, MassDEP and USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA and the Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Con$ervation Tips

1. Change or clean your faucet aerator at least once a year.
2. Check your meter – the red triangle on the meter should not be moving if there is no water being used.
3. Check toilet(s) – put food coloring in the tank, but don't flush. After 30 minutes, if any coloring appears in the bowl, there is a leak.
4. Conduct any outside watering in the early morning or evening to limit evaporation and maximize infiltration.
5. Collect rainwater in containers to water plants.
6. Install water savers on all faucets, including showerheads.
7. Fix leaking faucets.
8. Fill sink rather than leaving tap running when shaving, washing hands or doing dishes.
9. Turn off the faucet while brushing teeth or shaving.
10. Only run washing machine or dish washers when full.
11. Take shorter showers.
12. Instead of running the hose while washing your car, use a bucket of water and a quick hose rinse at the end.
13. Use a broom instead of a hose to clean driveways and sidewalks.
14. Keep a bottle of drinking water in the refrigerator. This beats the wasteful habit of running tap water to cool it for drinking.
15. Rather than defrosting foods with running water, place them in the refrigerator overnight or defrost them in the microwave.
16. Fill the sink or a bowl with water to wash vegetables instead of running the faucet.
17. Use the garbage disposal less and the garbage or compost more.
18. Put a layer of mulch around trees and plants. Chunks of bark, peat moss or gravel slows down evaporation.
19. Set lawn mower blades one notch higher. Longer grass means less evaporation.
20. Saving water saves you money!

Cross Connection Control and Backflow Prevention

The Whitman Water and Sewer Department makes every effort to ensure that the water delivered to your home and business is clean, safe and free of contamination. Our staff works very hard to protect the quality of the water delivered to our customers from the time the water is extracted via deep wells from underground aquifers or withdrawal point from a surface water source, throughout the entire treatment and distribution system. But what happens when the water reaches your home or business? Is there still a need to protect the water quality from contamination caused by a cross-connection? If so, how?

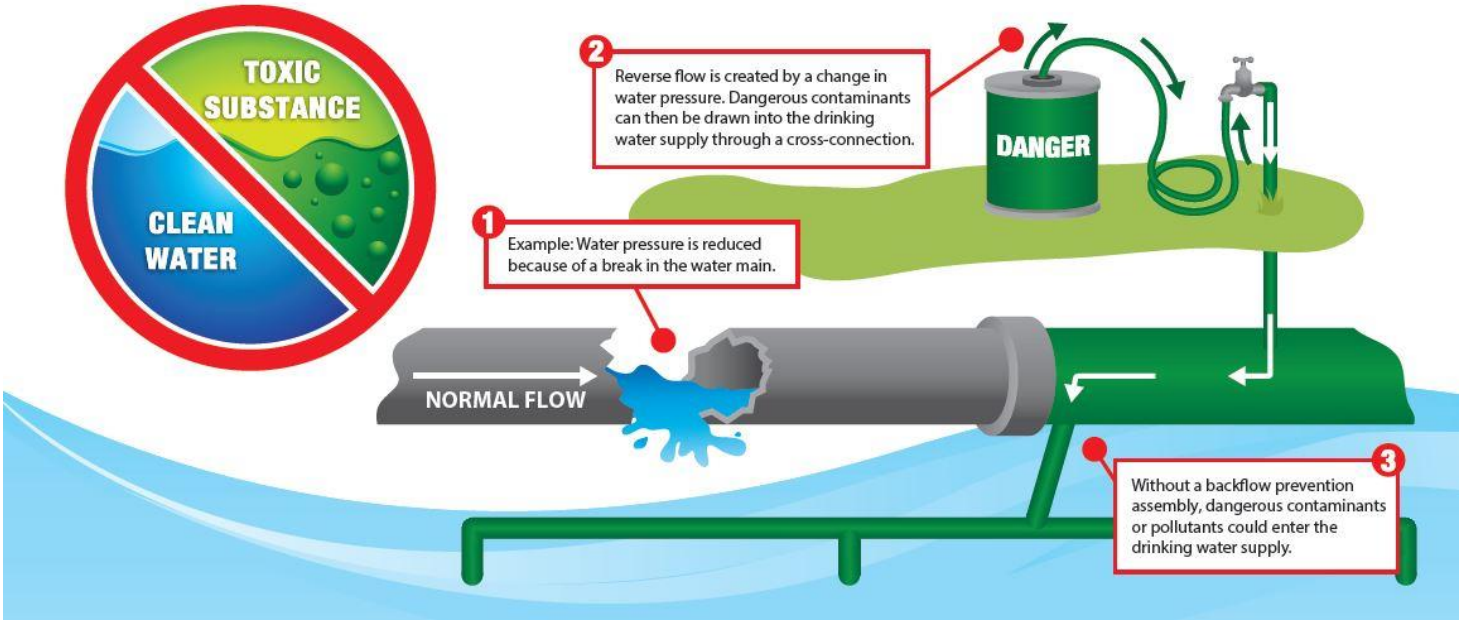
What is a cross-connection?
A cross-connection occurs whenever the drinking water supply is or could be in contact with potential sources of pollution or contamination. Cross-connections exist in piping arrangements or equipment that allows the drinking water to come in contact with non-potable liquids, solids, or gases (hazardous to humans) in event of a backflow.

What is a backflow?
Backflow is the undesired reverse of the water flow in the drinking water distribution lines. This backward flow of water can occur when the pressure created by equipment or a system such as a boiler or air-conditioning is higher than the water pressure inside the water distribution line (back pressure), or when the pressure in the distribution line drops due to routine occurrences such as water main breaks or heavy water demand causing the water to flow backward inside the water distribution system (back siphonage). Backflow is a problem that many water consumers are unaware of, a problem that each and every water customer has a responsibility to help prevent.

What can I do to help prevent a cross-connection?
Without proper protection something as simple as a garden hose has the potential to contaminate or pollute the drinking water lines in your house. In fact, over half the country's cross-connection incidents involve unprotected garden hoses. There are very simple steps that you as a drinking water user can take to prevent such hazards, they are:

- NEVER submerge a hose in soapy water buckets, pet watering containers, pool, tubs, sinks, drains, or chemicals.
- NEVER attach a hose to a garden sprayer without the proper backflow preventer.
- Buy and install a hose bibb vacuum breaker in any threaded water fixture. The installation can be as easy as attaching a garden hose to a spigot. This inexpensive device is available at most hardware stores and home-improvement centers.
- Identify and be aware of potential cross-connections to your water line.
- Buy appliances and equipment with backflow preventers.
- Buy and install backflow prevention devices or assemblies for all high and moderate hazard connections.

If you are the owner or manager of a property that is being used as a commercial, industrial, or institutional facility you must have your property's plumbing system surveyed for cross-connection, contact your water department to schedule a cross-connection survey.



Water Quality Summary

The Whitman Department of Public Works is committed to providing our customers with high quality drinking water which meets or surpasses state and federal drinking water standards for quality and safety. Each year the Whitman Water and Sewer Department and the City of Brockton conduct thousands of water quality tests, examining them for more than 125 potential drinking water contaminants. A summary of contaminants detected in 2022 is provided below. For contaminants that are not required to be sampled annually, the results from the most recent sampling within the past 5 years are given. Not listed are contaminants that were tested for but not detected.

Substance (Contaminant)	Result or Range Detected	MCL	MCLG	Violation	Common and Likely Source(s) of Contaminant
Regulated at Silver Lake WTP					
Alpha Emitters (pCi/L) (2021)	0.84	15	0	No	Erosion of natural deposits.
Barium (ppm)	0.012	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Bromodichloromethane (ppb)	13	NA	NA	No	By-product of drinking water chlorination.
Chlorodibromomethane (ppb)	7	NA	NA	No	By-product of drinking water chlorination.
Nitrate (ppm)	0.11	10	10	No	Runoff from fertilizer; Leaching from septic tanks; sewage; Erosion of natural deposits.
Perchlorate (ppb)	0.12	2.0	NA	No	Rocket propellants, fireworks, munitions, flares, blasting agents
PFAS6 (ppt) (2021)	ND – 2.83 QA – 2.83	20	NA	No	Discharges and emissions from industrial and manufacturing sources associated with PFAS, such as moisture and oil resistant coatings, and fire-fighting foams; use and disposal of products containing PFAS.
Total Organic Carbon (TOC)	1.09 – 1.76 RAA = 1.42	TT	NA	No	Naturally present in the environment.
Turbidity (NTU) (Nephelometric Turbidity Units)	0.05 – 0.24	TT = 5 NTU	NA	No	Soil Runoff. Turbidity is a measure of the cloudiness in water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
	100%	TT = >95% <0.3 NTU	NA	No	
Regulated in the Town's Distribution System					
Asbestos	ND	7 MFL	7MFL		Decay of asbestos cement water amins; Erosion of natural deposits.
Chlorine (ppm)	1.04 – 1.28 RAA = 1.15	MRDL = 4	MRDLG = 4	No	Water additive used to control microbes.
E. Coli	0- positive samples	Note 1	0	No	Human and animal fecal waste.
Tetrachloroethylene (PCE) (ppb)	ND – 0.73	5	0	No	Discharge from factories and dry cleaners.
Total HAA5s (ppb) (Haloacetic Acids) (4 Sites)	12 – 28 RAA = 18	60	0	No	By-product of water chlorination.
Total THMs (ppb) (Trihalomethanes) (4 Sites)	17 – 105 RAA = 47	80	0	No	By-product of water chlorination.

Substance (Contaminant)	Range Detected	90th %tile	AL	MCL	# Sites Sampled	# Sites above AL	Violation	Common and Likely Source(s) of Contaminant
Copper (ppm) (2021)	ND – 0.25	0.08	1.3	1.3	30	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (ppb) (2021)	ND – 5	1	15	0	30	0	No	Corrosion of household plumbing; Erosion of natural deposits.

Substance (Contaminant)	Result or Range Detected	SMCL	ORSG	Common and Likely Source(s) of Contaminant
Unregulated at Silver Lake WTP				
Chloroform (ppb)	29	NA	70	By-product of drinking water chlorination.
Manganese (ppb)	80	50	300	Erosion of natural deposits.
Unregulated in the Town's Distribution System				
Sodium (ppm)	28	NA	20	Discharge from the use and improper storage of sodium-containing de-icing compounds or in water-softening agents.

Definitions

2021 Denotes the calendar year for the reported results from the most resent sampling.
A.L. Action Level: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements, which a water system must follow.
MCL Maximum Contaminant Level: The highest level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
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.
MFL Million fibers per liter.
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 the control of microbiological contamination.
MRDLG Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant 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.
ND Not detected. Refers to the detection limit of the chemical analysis instrument or procedure.
NR Not regulated.
NA Not applicable.
pCi/L Picocuries per liter (a measure of radioactivity).
PPB One part per billion.
PPM One part per million.
RAA Running annual average of quarterly sampling results.
TT Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Unregulated Contaminant Monitoring Rule

Under the UCMR water systems are required by the USEPA to test for Unregulated Contaminants. Unregulated Contaminants are those for which USEPA has not established drinking water standards. The purpose of monitoring for Unregulated Contaminants is to assist USEPA in determining their occurrence in drinking water and whether future regulation is warranted. For more information about the UCMR, please visit the following USEPA website: https://www.epa.gov/dwucmr/fourth-unregulated-contaminant- monitoring-rule. Of the 30 Unregulated Contaminants monitored in 2019, only 9 were identified as noted below:

Substance (Contaminant)	Average	Range Detected	MCL
Bromochloroacetic acid	2.15 ug/L	0.678 – 3.04 ug/L	NR
Bromodichloroacetic acid	3.98 ug/L	3.03 – 5.76 ug/L	NR
Chlorodibromoacetic acid	0.62 ug/L	0.44 – 0.99 ug/L	NR
Dibromoacetic acid	0.36 ug/L	ND – 0.597 ug/L	NR
Dichloroacetic acid	7.39 ug/L	2.62 – 11.40 ug/L	NR
Manganese 200.8	32.57 ug/L	6.89 – 81.20 ug/L	NR
Monobromoacetic acid	0.32 ug/L	ND – 0.46 ug/L	NR
Quinoline	0.027 ug/L	ND – 0.034 ug/L	NR
Trichloroacetic acid	12.27 ug/L	9.08 – 16.20 ug/L	NR

Hard copies of this report are available at the Town of Whitman Department of Public Works, located at 100 Essex Street, Whitman, MA 02382, or by calling 781-447-7630.

Town of Whitman
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