TOWN OF PAXTON

2019 Water Quality Report – Public Water Supply #2228000

Consumer Confidence Report

This report contains important information about your drinking water. It is designed to inform you about where your drinking water comes from, how it's treated, the results of the water quality testing, cross connection and conservation tips, and the 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 our system, and to make certain that we are providing you with the best quality water possible from source to tap.

Your Water Meets all Federal and State Standards

The Paxton Water Department is pleased to report that your drinking water meets all federal and state requirements set forth by the *Safe Drinking Water Act.*

In order to ensure that tap water is safe to drink, USEPA and MassDEP have regulations set in place that limit the amount of certain contaminants in water provided by public water systems. The 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 of public health.

By continuing to comply with the strict regulations for public water systems, the Town of Paxton Water Department can be sure that your drinking water is safe.

Paxton's Water Supply

Paxton purchases 100% of its drinking water from the City of Worcester. Worcester obtains its drinking water from ten active surface water sources, or reservoirs, located both in and out of the city. The watersheds for these reservoirs cover a total of 40 square miles. These reservoirs combined hold a total of 7,379,900,000 Gallons. The reservoirs are listed below.

- Lynde Brook Res. (Leicester) 717.4 Million Gallons (MG)
- Kettle Brook Res. No.1 (Leicester) 19.3 MG

- Kettle Brook Res. No.2 (Leicester) 127.3 MG
- Kettle Brook Res. No.3 (Leicester, Paxton) 152.3 MG
- Kettle Brook Res. No.4 (Paxton) 513.7 MG
- Holden Res. No.1 (Holden) 729.3 MG
- Holden Res. No.2 (Holden) 257.4 MG
- Kendall Res. (Holden) 792.2 MG
- Pine Hills Res. (Paxton, Holden, Rutland) 2,971.0 MG
- Quinapoxet Res. (Holden, Princeton) 1,100.0 MG

In addition to these ten active reservoirs Worcester also has two additional reservoirs that are inactive, and two groundwater sources which come from two different wells (also inactive): the Coal Mine Brook Well located on Lake Avenue North in Worcester, and the Shrewsbury well located off Holden Street in Shrewsbury, as well as the Wachusett Reservoir and the Quabbin Aqueduct. These four additional inactive sites are an excellent emergency water source.

The ***first barrier*** **of protection** for any water supply is to have, and maintain a clean source of water. To protect a surface water supply, the land within the watershed must be controlled. The land within the Watershed that the city of Worcester controls is patrolled regularly in order to maintain and protect the water supply. However, not all of the land in the reservoir's watershed is owned or controlled by the city of Worcester. Some of the land within the Watershed is privately owned, and some of the activities held on those lands could pose a threat to water quality in the reservoirs.

The potential threats to the water supply within those privately owned lands include, but are not limited to: dairy farms, livestock operations, manure spreading and/or storage, pesticide storage and/or use, railroad tracks, aquatic life, landfills and dumps, power line right of ways, storm water discharge, highways and roadways. If you are a land owner within the watershed of a drinking water supply please keep in mind that what you do on your land has the potential to contaminate the water supply, so be conscious of what you do, and how you do it for the benefit of you, your neighbors, and your fellow townsfolk.

THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) WANTS YOU TO KNOW

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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

The 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 accruing minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animal or human activity.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewerage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic Contaminates, 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, and farming.

Pesticides and Herbicides, which may come from a variety of sources such as agricultural, 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, and can also come from gas stations, urban runoff, and septic systems.

Radioactive Contaminants, which 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 Environmental Protection Agency (EPA), and the Massachusetts Department of Public Health (DPH) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration and Mass DPH regulations establish limits for contaminants in bottled water as well, which must provide the same protection for public health.

SOURCE WATER ASSESSMENT PROTECTION AGENCY (SWAP) REPORT

The Massachusetts Department of Environmental Protection (DEP) has completed a source water assessment program report for our reservoirs supplying the Paxton Water system. The purpose of SWAP is to identify potential threats to our water supply sources so we can take appropriate action to improve source protection.

The susceptibility to contamination for Worcester's water sources was ranked high. This means there is at least one high threat land use within the key water supply areas surrounding the reservoirs. These land uses have the potential to add contaminants to the supply source. Some of these high threat uses are: dairy farms, manure spreading or storage, pesticide storage or use, landfills and dumps.

Worcester has been commended by DEP in the past for taking an active role in promoting source water protection measures. For a complete copy of the SWAP Report please call the Worcester Water Department at 1-508-799-1484.

We at the Paxton Water Department work around the clock to provide top quality water to every tap. We ask that all our customers help us to protect our water sources, which are the heart of our community, our way of life, and our children's future.

More information on watershed protection is available in the Source Water Assessment & protection (SWAP) report prepared by the Department of Environmental Protection Agency (DEP) in 2002 and is available from the Paxton Water Department by calling (508) 753-9077 or at www.mass.gov/dep/water/drinking/2348000.pdf.

Immuno-Compromised Persons

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as a person 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 for infections. These people should seek advice about drinking water from 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 hot line (1-800-426-4791).

Water Treatment

Protecting the water supply is not enough to assure that we are able to supply you with safe and adequate drinking water. All drinking water, including bottled water, begins as rainfall, or snow melt. As this water travels over the surface of the land, and is absorbed into the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material, and can pick up substances or contaminants that occur due to the presence of human, and/or animal activity. Although many of these substances and contaminants may be removed or reduced by natural processes before it reaches the water supply, some may enter into the water supply.

Water treatment is necessary as the ***second barrier*** **of protection**. The water treatment process reduces the levels of contaminants to a safe range, and can effectively eliminate some substances, but it will not remove all traces of all possible contaminants. **Drinking water, including bottled water, may reasonably be expected to contain at least some 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 Environmental Protection Agency's (EPA's) Safe Drinking Water Hotline at 1 (800) 426-4791.**

The city of Worcester treats the water through the processes of Ozonation, Coagulation & Flocculation, Direct Filtration, PH Adjustment, Corrosion Control, and disinfection to remove or reduce harmful contaminants that may come from the source water. Listed below are the methods that the City of Worcester used to treat the drinking water that entered the Town of Paxton in the 2019 calendar year.

- **Ozonation** - Generated on-site at the treatment plant, ozone disinfects and breaks down organic matter making the water more efficiently filtered. This is the most effective disinfectant for the parasites giardia and cryptosporidium.
- **Coagulation and Flocculation** - Using cationic polymer and alum to make tiny particles in the water stick together to form larger particles, which can then be better trapped in the filters.
- **Direct Filtration** - This removes particles from the water using coal and sand filters.
- **PH Adjustment** - Lime (calcium oxide) is added to make the water less acidic, and less corrosive.
- **Disinfection with Chlorine** - To kill bacteria and other microorganisms.
- **Corrosion Control** - A blended phosphate corrosion inhibitor is added to make the water less corrosive.

Distribution System

In 2019, the Paxton Water Department distributed 100,324,456 gallons of water to our customers. All of our water is purchased pretreated from the city of Worcester. The Town of Paxton's water distribution system is made up of varying types of pipe that range in sizes from 3/4" to 12" pipe. The water mains alone add up to roughly 40 miles of pipe (this number is not including service pipes that run from the water main into the house, building, or structure at your location). There is a pump station that houses two pumps (a primary, and a secondary pump) that move all of the water entering from the City of Worcester into the town of Paxton. The water travels from the pump station through the distribution lines and into one of the two Water Storage Tanks that house a total of 1.2 million gallons (MG) of water. The water then travels from the water storage tanks throughout the distribution system through water mains ranging in sizes from 1" to 12" pipe. The water then travels out of the water mains through your water service pipe in order to make it to your tap. It is our responsibility to make certain that when you open the tap that you have safe and adequate drinking water. We at the Paxton Water department take pride in what we do, and work continuously to make sure that the water you receive is safe and adequate every time you open your tap.

Maple Street Water Storage Tank

2019 Water Quality Testing Results

The following are sampling results from the City of Worcester done in 2019 calendar year or during the most recent monitoring period for each contaminant group.

Regulated Contaminant	Date Collected	Highest Level Detected	Range	MCL or MRDLG	MCLG or MRDLG	Violation (Yes/No)	Possible Sources
Inorganic Contaminants							
Barium (ppm)	2019	0.01	N/A	2	2	No	Erosion of natural deposits
Fluoride (ppm)	2019	0.046	N/A	4	4	No	Erosion of natural deposits
Manganese (ppm)	2019	0.015	N/A	Unregulated (1,2)	Unregulated (1,2)	No	Erosion of natural deposits
Nitrate Nitrogen (ppm)	2019	0.04	N/A	10	10	No	Erosion of natural deposits, fertilizer, wastewater
Sodium (ppm)	2019	13.4	N/A	Unregulated (1)	Unregulated (1)	No	Naturally present in the environment; road salt
Volatile Organic Contaminants (VOC's)							
None detected other than disinfection byproducts							
Synthetic Organic Contaminants (SOC's)							
None detected in the samples collected							
Radioactive contaminants							
Radium 226 & 228 (pCi/L)	2016	0.14	N/A	5	0	No	Erosion of natural deposits
Gross Alpha (pCi/L)	2016	0.56	N/A	15	0	No	Erosion of natural deposits

1 - Unregulated means that the USEPA has not set an MCL for this contaminant

2– The USEPA has set a health advisory for Manganese of 0.3ppm

*Sodium is not regulated by the USEPA. The DEP Office of Research and Standards has set a state guideline (ORSG). These concentration levels have been developed to indicate whether further action is necessary to avoid adverse health risks, and to protect the aesthetic quality of our drinking water. Sodium ORSG: 20ppm

Microbiological Contaminants :

Total Coliform Bacteria are a group of bacteria that serve as indicators of potential water quality problems. Total Coliform Bacteria are naturally present in the environment in soil, vegetation, and surface water. (Certain types of Total Coliform can survive in water distribution systems despite the presence of chlorine.) Total Coliform Bacteria are used as an indicator, and if they are found in any of the routine monthly samples taken the samples must then be tested for Fecal Coliform or E. coli. The Paxton Water Department currently collects 6 coliform bacteria samples each month throughout the distribution system, and 1 sample at the entry point of the system (where the water enters from the city of Worcester). All monitoring locations are approved by the Massachusetts Department of Environmental Protection (MASS DEP), and are spread throughout the distribution system. A total of 87 Samples were drawn in 2019 and were analyzed for Total Coliform.

Microbial Contaminants (Distribution System)					
Bacteria	**Total # positive**	**MCL**	**MCLG**	**Possible Sources**	**Violation**
E. Coli	0	Determined upon additional repeat testing	0 Positive	Human and animal fecal waste	No

Lead and Copper

Lead and copper are contaminants with a very specific and unique set of rules for sampling, and testing. Lead and Copper don't contaminate the water at the source as many other inorganics do. Generally it enters the water once it has flowed to the consumer's home. These metals typically dissolve from the water pipes within your house if the water is corrosive. Lead typically comes from the Lead Solder that was used prior 1986, to connect the copper piping in the buildings water supply lines. The copper comes from the piping itself. Ingesting large amounts of copper from water can cause an upset stomach, but there are no long term health effects unless you suffer from Wilson's disease. Lead, on the other hand, is known to cause learning impairments in young children, and may cause delays in mental and physical development. Elevated lead ingestion is also known to cause kidney problems, and/or high blood pressure in adults. Elevated lead in water taken from the tap can cause serious health problems, especially in young children, and pregnant women. Lead in your drinking water is primarily from the materials which make up the plumbing inside the home. The Paxton Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials associated with home plumbing. After your water has been sitting unused for several hours you can minimize the potential for lead exposure by flushing the tap for

30 seconds to two minutes before using the water for drinking, cooking, or making formula. 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 your exposure to lead can be found through the Safe Drinking Water hot line, or at http://www.epa.gov/safewater/lead.

Lead and copper	Date collected	90th Percentile	Action Level	MCLG	# of sites Sampled	# of Sites Above Action Level	Exceeds Action Level (Y/N)	Possible Sources
Lead (ppb)	2018	1	15	0	20	0	No	Corrosion of household plumbing
Copper (ppm)	2018	0.079	1.3	1.3	20	0	No	Corrosion of household plumbing

*Lead and Copper compliance is based on the 90th percentile value, which is the highest level found in 9 out of every 10 homes sampled. This number is compared to the action level for each contaminant.

Other Analysis

The compounds in this table are general measures of water chemistry. There are no established limits for these compounds since they are not recognized as having significant health effects at levels found in drinking water. These compounds are sometimes referred to as secondary contaminants. At certain levels some of these may discolor the water or create a bad taste. Many of these measurements are made as another way to track the effectiveness of Worcester's treatment process.

Unregulated and Secondary Contaminants tested by the city of Worcester	Range Detected By the City of Worcester	SMCL	ORSG	Possible Sources
Alkalinity (ppm)	7.6 – 14.4	---	---	Naturally Occurring. Buffering capacity of water.
Aluminum (ppm)	0.027 - 0.109	200	---	Natural sources and water treatment processes
Calcium (ppm)	6.3 – 10.4	---	---	Natural sources and water treatment processes.
Chloride (ppm)	25 – 37	250	---	Natural and manmade sources
Conductivity (umhos/cm)	120 - 182	---	---	An indirect measure of dissolved solids.
Hardness (ppm)	18 - 31	---	---	Naturally occurring. An indirect measure of Calcium & Magnesium.
Iron (ppm)	0.057 – 0.254	0.3	---	From natural sources and old water mains.
Orthophosphate (ppm)	0.473 – 0.693	---	---	Added to the water during treatment as a corrosion inhibitor.
Manganese (ppb)	0.015 (maximum level detected)	50	300[1]	Erosion of natural deposits
pH units	7.36 – 7.78	6.5 -8.5	---	Measurement of the acidity or basicity of the water.
Sodium (ppm)	13.4 (Maximum level detected)	---	20[2]	Discharge from the use and improper storage of sodium-containing de-icing compounds or in water-softening agents
Sulfate (ppm)	7.7 – 16.2	250	---	Natural sources and water treatment processes.
Temperature (◦C)	4 – 25	---	---	Natural processes.
Total Organic Carbon (ppm)	1.31 – 2.44	---	---	Natural sources.
Total Phosphate (ppm)	0.80 – 1.20	---	---	Added to the water during treatment as corrosion inhibitor.
Zinc (ppm)	<0.004 – 0.006	5	---	Natural sources; galvanized pipes

[1]US EPA and MassDEP have established public health advisory levels for manganese to protect against concerns of potential neurological effects.
[2]Sodium sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure, should be aware of the sodium levels where exposures are being carefully controlled.

Disinfection and Disinfection Byproducts

Chlorine is a disinfectant used to kill bacteria and microorganisms in drinking water. Its use is recognized as one of the most important public health measures ever taken in the modern world. Federal regulations limit the maximum amount of residual chlorine that can be present in the distribution system to 4.0ppm.

Disinfection Byproducts are organic compounds produced when chlorine reacts with naturally occurring organic matter. Total trihalomethanes (TTHMs), a group of four compounds, and halo acetic acids (HAAs) a group of five compounds, are monitored by the Paxton Water Department at two separate monitoring locations where the highest levels are expected. These samples are taken on a quarterly basis year round. Compliance with the MCL is determined by the running annual average at each sampling location during the year (Locational Running Average). Some people who drink water containing TTHM's in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer. The Paxton Water Department is pleased to announce that none of the samples drawn in the 2019 calendar year exceeded the MCL's for either the TTHMs, or the HHAs.

Disinfectant/ Disinfectant Byproduct	Maximum Level Detected (HRAA)[1]	Range Detected	MCL (MRDL)[2]	MCLG (MRDLG)[3]	Violation (Y/N)	Typical Source of Contaminant
Total Chlorine (ppm)	0.23	0.02 - 1.58	4	4	No	Added during treatment.
Total Trihalomethanes (TTHMs) (ppb)	73	45 – 76	80	-	No	Byproducts of Chlorine Disinfection.
Haloacetic Acids (HAAs) (ppb)	30	17 – 49	60	-	No	Byproducts of Chlorine Disinfection.

[1]Highest Running Annual Average. [2]Maximum Residual Disinfectant Level. [3]Maximum Residual Disinfectant Level Goal.

Cross Connection Program

A comprehensive cross connection program is **the *third barrier* of protection** to our water supply. Cross connections can occur throughout the distribution system in all types of buildings including homes, restaurants, schools, and businesses to name a few. The Paxton Water Department makes every effort to ensure that the water delivered to your home and/or business is clean, safe, and free of contamination. Our staff works very hard to protect the quality of the water delivered to you, our customers, from the time it enters into the system, until it reaches your homes and businesses. But what happens when the water reaches your home and/or business? Is there still a need to protect the water quality from contamination caused by 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 allowed the drinking water to come in contact with non-potable liquids, solids, or gasses (hazardous to humans) in the event of a backflow, or backsiphonage.

What is a backflow or backsiphone?

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 an equipment or system such as a boiler or air-conditioning unit is higher than that of the water pressure inside the water distribution line (backpressure), 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 (or be siphoned backwards) inside the water distribution system (backsiphonage). Backflow and backsiphone is a problem that many water customers are unaware of, a problem that each and every water customer has a responsibility to help prevent.

Backflow Preventer Testing in 2018	
Total Number of Reduced Pressure Backflow Preventers (RPBP) in Paxton in 2018	34
Total Number of Double Check Valve Assemblies (DCVA) in Paxton in 2018	12
Total Number of Pressure Vacuum Breakers (PVB) tested in Paxton in 2018	1
Total Number of Backflow Preventer Tests conducted in Paxton in 2018	77

For more information related to the Town of Paxton Water Department's Cross Connection Control Program please call the P.W.D. at (508) 753-9077.

The *fourth barrier* of protection is YOU .

What can you do to help prevent a cross-connection?

Without the 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 of the country's cross-connection incidents involved unprotected garden hoses. There are very simple steps that you can take as a drinking water user to protect, and prevent against hazards in your water:

- **NEVER** submerge a hose in soapy water buckets, pet watering containers, pools, tubs, drains, or chemicals.
- **NEVER** attach a hose to a garden sprayer without the proper backflow preventer.
- Buy and install hose bib vacuum breakers 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 a backflow preventer already installed on it.
- Buy and install backflow prevention devices or assemblies for all high or moderate hazard conditions.

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 by the Paxton Water Department. If your property has NOT been surveyed for cross-connection please contact the Paxton Water Department to schedule a cross-connection survey.

The Paxton Water Department would like to remind all of its customers with in-ground sprinkler systems that they must have the proper cross-connection devices to be in compliance with the DPW and DEP regulations. More education on cross-connection is available at the town hall, or by contacting the Paxton Water Department at (508) 753-9077.

Paxton Water Department Year in Review

2019 was an extremely challenging and busy year for the Department, with many unexpected costs arising throughout the year. However, we were able to face and overcome every challenge that arose.

2019 was the second year of our meter upgrade program which was originally predicted to take roughly 4 ½ years to complete. The new Badger Beacon System that is being installed is proving to be extremely useful in detecting small leaks in homes through the alarm system that is built into the meter to pick up small continuous flows of water. We've been able to help homeowners find many small leaks that even some of the owners were unaware of thanks to the new metering system.

Through the new metering system the department is notified of any leaks that arise in the home, and we are then able to contact the homeowners and make them aware of the issue, which in turn has helped many folks in town from receiving high bills due to unknown leaks in the home. You as the property owner even have the ability with the new meters to create an online account so you can track your usage, see your seasonal water usage trends, and receive alarms (if you so choose) that will help you further reduce wasted water, and therefore will reduce your monthly costs. We look forward to getting the entire system upgraded to reduce the town's unaccounted for water, and to help our customers with water conservation, reducing costs and finding leaks faster. If you would like any information on the new Badger meter system, please feel free to contact the Paxton Water Department.

In April of 2019 the Paxton Water Department charged the new 8" ductile iron water wain that was installed in the new Olivia Knoll development off of Pleasant Street.

In July of 2019 the Paxton Water Department started a water main upgrade on Birchwood Road. The Water Department and the Highway Department worked together to replace roughly 360 feet of 6' cast iron water main, with new 8" ductile iron water main, install two new operating valves, and replace the services in this section from the main to the curb stop valve located on the owner's property.

In the Spring of 2019 the Paxton Water Department was notified by the Department of Environmental Protection Agency that we had to do a total restoration or replacement of the 1 million gallon Asnebumskit water storage tank, or we would be forced to take it off line. The Department obtained approval at the Annual Town Meeting in the Spring of 2019, and contracted SUEZ Utility Services Co., Inc. to make repairs. The interior restoration of the tank was completed by December of 2019. In order to make this happen in such a short duration of time shows the dedication of the staff, the Board of Water Commissioners, the Town Administrator, and the contractors. It took many long, sleepless nights to get this completed for some of the staff with very little disturbance to you, the customer. This would not have been possible over that timeline without everyone working together. The rehabilitation work to the exterior of the tank is scheduled to start back up in June of 2020, with the expectation that all the rehabilitation work will be 100% completed in 2020.

Paxton Water Department Grants Awarded

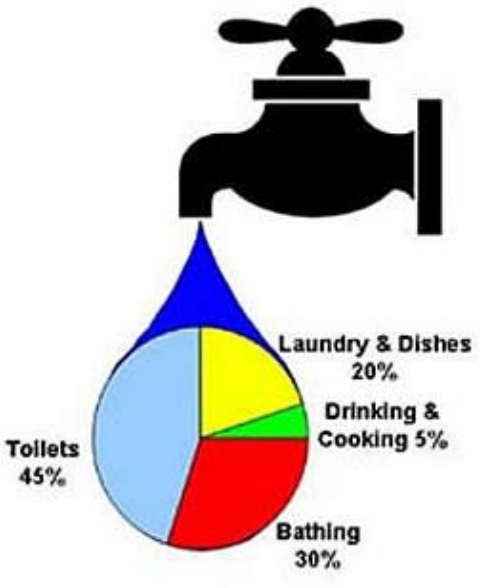
In 2019 the Paxton Water Department applied for and was awarded a grant from the Massachusetts Interlocal Insurance Association (MIIA). MIIA offered a grant with a total sum of up to $10,000.00 if awarded, with a major focus on Safety. The Paxton Water Department was awarded the sum total of $6,520.00 to purchase several items all based around safety, and having a faster response time for emergency situations. The grant money was used to purchase an enclosed trailer that we set up for emergency situations in order to reduce our response time. With this grant money we were also were able to purchase new "utility work ahead" and "road closed" signage, new 36" traffic safety cones, as well as face shields and gloves for our employees.

We now have all of our equipment for making repairs housed in this enclosed trailer so when we get called out for emergency water main breaks we can now hook up to the trailer and get to the jobsite without having to spend valuable time collecting equipment from several different locations. This reduces our response time, and therefore reduces the time that you the customers are inconvenienced during these emergency situations, as well as saving money due to lessoning the amount of water lost during main breaks because of the quicker response times. These are all valuable assets that help us do our jobs faster, safer, and with less inconvenience to our customers, and the department is grateful to have had the opportunity to have applied for, and awarded, the grant.

If you have any questions regarding any of the projects or grants that took place in 2019, please don't hesitate to reach out to Travis Thibault, the Paxton Water Department Superintendent.

Water Conservation

Water conservation doesn't just mean using less water; it also means using water more efficiently. Below you will find a few helpful tips for conserving water.



1. Check for Leaks
According to the EPA, leaks can waste more than 10,000 gallons of water every year in an average household. Check for leaks in the most common offenders: toilets, faucets, showerheads, and outdoor faucets.

2. Don't Run and Waste
Every drop counts so turn off the tap. Whether you're brushing your teeth, shaving, or washing the dishes – don't let the water run. Turning off the water while brushing your teeth can save up to 8 gallons of water per day!

3. Reuse and Recycle
As strange as this sounds, reusing water can be a very effective way of conserving water. When waiting for a shower to heat up, collect the cold water to reuse elsewhere – like watering your plants.

4. Replace Showerheads
A very simple way to reduce water usage is to replace showerheads and aerators. Standard showerheads use 2.5 gallons of water per minute while a low-flow showerhead uses 2.0 GPM or less.

5. Rethink Your Old Inefficient Toilets
Replacing a toilet isn't as easy as replacing a showerhead, but it is one of the fastest ways of seeing a big difference in water usage. Toilets are the main source of water usage inside a home. Federal standards for toilets are 1.6 gallons per flush but with technology advancements there are toilets that use HALF of that amount.

If you have any questions about this report or concerning your water utility, please contact Travis Thibault (Paxton Water Dept. Superintendent) by calling (508) 753-9077, or by writing to this address: 107 Holden Road, Paxton, MA. 01612.

We at the Paxton Water Department want to make certain that all of our customers are informed about their drinking water, and their water utility. We welcome any of our customers to attend the Water Board meetings which are held monthly. The dates, times, and locations are posted at the Town Hall (697 Pleasant Street) in Paxton and on the town's website.

Glossary of Terms

90th Percentile – A statistical measure used in the Lead and Copper Rule. A test result at the 90th percentile level means that 90 percent of all the test results fall below that level.

Level 1 assessment – is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

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

Distribution System – The network of pipes, vaults, and storage tanks that bring water from the treatment plant to the homes and businesses where the water is used.

Massachusetts Department of Environmental Protection (DEP) – The State Agency responsible for setting and enforcing drinking water regulations in Massachusetts.

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.

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 Residual Disinfection 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 health risk. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

mg/L – Milligrams per liter

NTU - Nephelometric Turbidity Units

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

ppb – Parts per billion

ppm – Parts per million

pCi/L – picocuries per liter (a measurement of radioactivity)

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

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

United States Environmental Protection Agency (USEPA) – The Federal Agency responsible for setting and enforcing drinking water regulations.

Variances and Exemptions – Is when State or EPA permission not to meet MCL or a treatment technique under certain conditions.

Watershed – The land upon which rain falls then flows across as runoff that eventually collects into streams, rivers, lakes, ponds, and reservoirs. Watershed boundaries are determined by the topography with hills and mountains determining which direction the runoff will travel.