

Questions... call us!

Water quality questions:

Mark Holley, Water Facilities Superintendent
413-772-1539 or mark.holley@greenfield-ma.gov

Leaks, low pressure, meter problems, or billing information:

Department of Public Works
413-772-1528 ext 6100 or 6106

Hazardous Waste Disposal:

413-772-1539, Paul Zilinski, or paul.zilinski@greenfield-ma.gov

City Council: For city council meetings, please check the town website, greenfield-ma.gov

WATER QUALITY REPORT 2018

GREENFIELD, MASSACHUSETTS
MAYOR WILLIAM MARTIN

CONSUMER CONFIDENCE REPORT
REPORTING YEAR 2018
PUBLIC WATER SUPPLY # 1114000

Did you know...

Over 3,000 individual tests are performed on Greenfield's drinking water every year.

Periodic tests include analysis of the source waters for a wide variety of substances such as pesticides, inorganic compounds and radioactive substances. Daily, the water leaving the treatment plant is tested for bacteria, pH, turbidity and chlorine residual. Monthly, over 30 bacteriological tests are performed on water from all sections of the city to insure the water maintains high quality as it travels through miles of distribution lines.

What's new in the system...

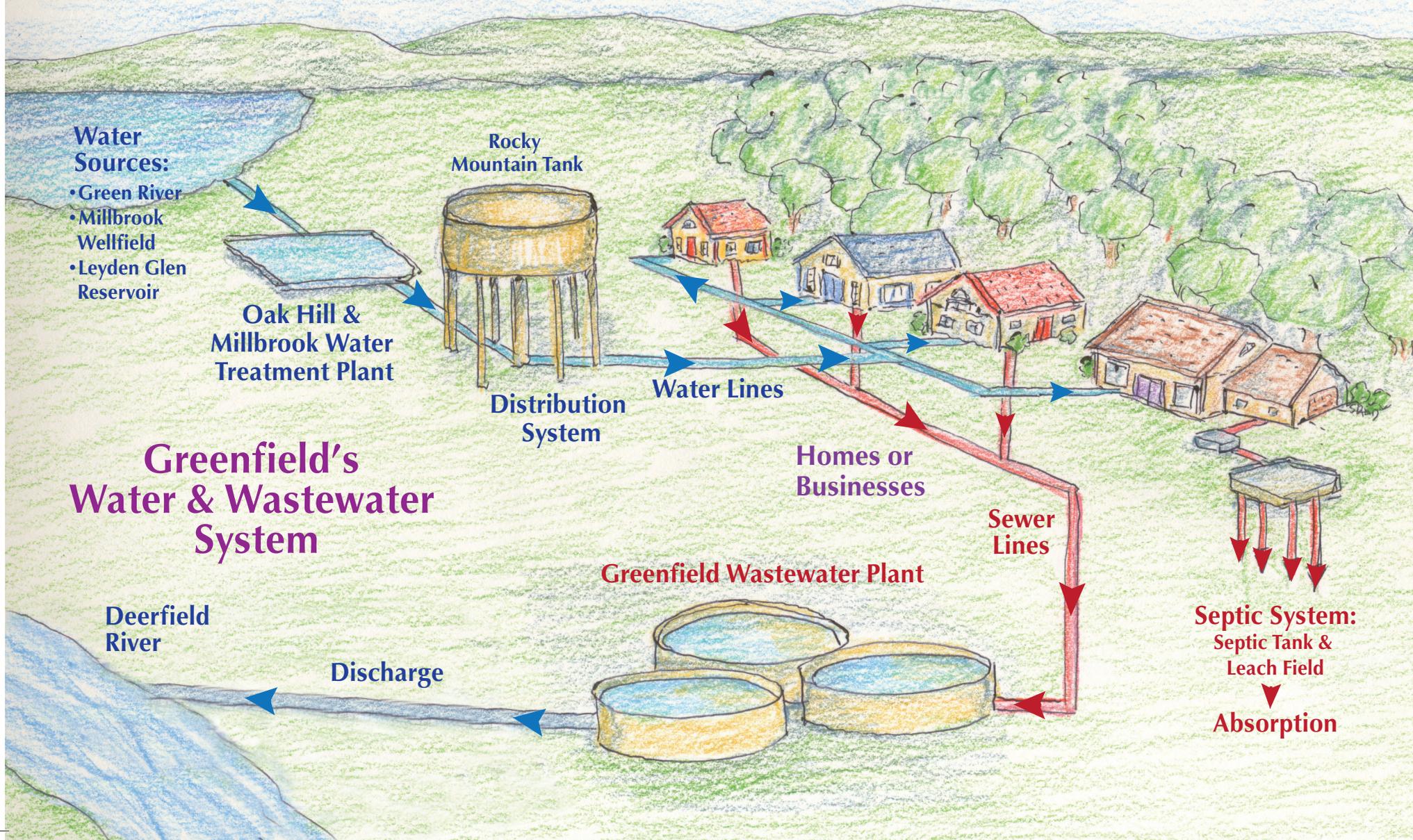
Millbrook Corrosion Control Facility received some upgrades to the pH adjustment system, which is an important part of corrosion control. The upgrades included a Programmable Logic Controller (PLC) that adjusts pH based on the actual pH. The old system relied on flow rate only and did not have the ability to adjust to the different pH's from each well. As part of this upgrade alarms were added to alert if pH varied too far from the set point and could shut down the system if the pH varies far from the set point.



The distribution system was leak checked twice as part of maintaining the 96 miles of water mains, along with repairing water main breaks, hydrants, and water meters!!

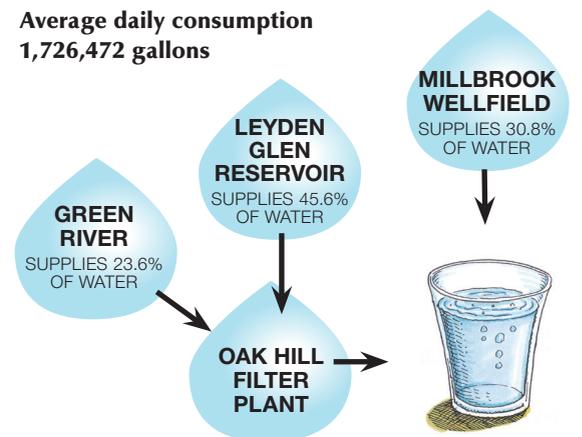
Sampling violation:

During the year 2018 one Safe Drinking Water Act sample was positive for total coliform. All of the follow up and re samples were absent of bacteria. The one positive sample requires a public notification. If the follow up and re samples were also positive then an immediate notice would have been given. One HAA5, or system sample was missed during the first quarter of 2018. This represents a reporting and monitoring violation and requires public notification. This is that notification.



Greenfield Water Supply

Average daily consumption
1,726,472 gallons



Commonly asked questions...

What is a Cross Connection?

A cross connection is a connection between a drinking water pipe and a polluted source.



The pollution can come from your own home. For instance, you're going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops (say because of fire hydrant use in the city) when the hose is connected to the fertilizer, the fertilizer may be sucked back into the drinking water pipes through the hose.

What Can I do about it?

Using an attachment on your hose called a backflow-prevention device can prevent this problem.

The DPW recommends the installation of back flow prevention devices, such as a low cost hose bib vacuum breaker, for all inside and outside hose connections. You can purchase this at a hardware store or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system in your city.

In 2018, 498 Back flow preventers were tested with a total of 804 tests, some devices tested more than once due to their type, per DEP.

For additional information on cross connections and on the status of your water system's cross connection program, please contact the DPW at 413-772-1539.

Is Greenfield's water hard?



No! There is a common misconception that all New England water is hard. This is not true. Greenfield's water is categorized "soft" meaning that it contains less than 75 ppm (less than 4 grains) of hardness.



Should I use hot water to make baby formula?

No. Hot water may contain impurities such as rust, copper and lead that come from the hot water heater and plumbing in your house. These impurities can generally dissolve into hot water faster than into cold water.

SUBSTANCES DETECTED Below are substances that were detected in the Cities' drinking water during the years listed next to the parameter. None of these substances were detected above the allowable limit.

CHEMICAL PARAMETERS

Substance/year (unit of measure)	Year Sampled	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range of Detected Levels	Violation	Major Sources in Drinking Water
Nitrate (ppm)	2017	10.0	10.0	0.49	0.139 – 0.491	No	Runoff from fertilizer use; Erosion of natural deposits
Chlorine (ppm)	2017	4	4	2.18	0.19 – 2.18	No	Water treatment chemical used to control microbes
Total Trihalomethanes [THMs] (ppb)	2018	80	0	11	14.0 – 27.1	No	RAA = Running Annual Average Disinfection by-products
Haloacetic Acids [HAA] (ppb)	2018	60	N/A	4.6	0.50 – 17.2	No	RAA = Running Annual Average Disinfection by-products
Sodium (ppm)	2018	20	N/A	11	11	No	Runoff from storm water
Manganese (ppm)	2018	0.05mg/L – 0.3 mg/L	N/A	0.0079	ND (<0.002 ug/L) ND (<0.0079ug/L)	No	Natural sources
Iron (ppm)	2018	0.3 mg/L	N/A	0.05	ND (<0.051ug/L) – 0.050	No	Natural sources
Barium (ppm)	2017	2 mg/L	N/A	0.009	0.009	No	Natural sources
Nickel (ppm)	2017	No current MCL	N/A	0.001	ND (<0.001) - 0.0010	N/A	Natural sources
Substance (unit of measure)	Year Sampled	Action Level (AL)	MCLG	Amount Detected 90th percentile	Range of Detected Levels	Violation	
Lead (ppb)	2017	15	0	3.5 ug/l	0.59 – 13.00	No	Household plumbing and service connections
Copper (ppm)	2017	1.3	1.3	870 ug/l	ND - 1500	No	Household plumbing and service connections
Secondary Substances (unit of measure)	Year Sampled	SMCL	MCLG	Amount Detected	Range	Exceedance	
Turbidity* (NTU)	2018	Treat tech* = 1	N/A	0.14	.02 – 0.14		Soil runoff
Sulfate (ppm)	2015	N/A	N/A	8	ND – 8.0	No	Natural sources

DEFINITIONS:

90th percentile. Out of ten samples, at least nine were below an accepted level.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to 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 are 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 a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppm: One part per million (this would be one penny in 10,000)

ppb: One part per billion (one penny in \$10,000,000)

***Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.

***Action Level:** The concentration of a contaminant that triggers treatment or other requirement that a water system must follow. Action levels are reported at the 90th percentile for homes at greatest risk.

***Turbidity:** Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.



Are there any precautions some of our customers should consider?

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).

The Town is mandated by EPA to include in this report the following generic language about the health effects of certain contaminants and drinking water sources:

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 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;

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 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water

systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Regarding 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. The Greenfield DPW 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. If you would like your water tested for lead at no charge please call the DPW at 413-772-1539. Additional 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>

Thank you for conserving water

Greenfield residents used 47 gallons per capita per day

The average consumer used 70 gallons per capita per day

Current usage in the home:

27% toilet flushing 16% faucets

21% laundry 16% leaks and other uses

19% bathing 1% dish washing



To find out how you compare try this calculator:

<https://home-water-works.org/calculator>