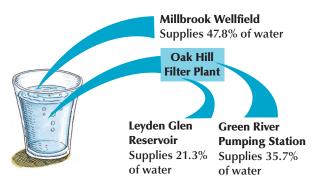
## **Greenfield Water Supply**

Average daily consumption 1,6878,359 gallons



Greenfield residents used 47 gallons per capita per day. The average consumer used 50 gallons per capita per day

Current water usage in the home:

24% toilet flushing
20% bathing
12% leaks
19% faucets
8% other uses

## **Notice of noncompliance**

In January a sample for Total Trihalomethanes and Haloacetic Acids 5 (THM and HAA5-disinfection byproducts) was required. The samples were not taken until February. This constitutes a sampling violation and therefore results in a notice of non compliance. While the sample was taken late, the remaining samples were taken on time for the rest of the year. None of the samples violated regulatory limits.

## 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 6106

**Hazardous Waste Disposal:** 413-772-1539, Paul Zilinski, or paul.zilinski@greenfield-ma.gov





The water is contained with a dam and crest gate. The crest gate allows us to raise or lower the water level approximately three feet.

This reservoir holds 4,500,000 gallons of water. It supplies 56.5% of the Town's needs and is the most economical source. The water flows by gravity to the Oak Hill Filter Plant and then into the city filling the Rocky Mountain Tank. All by gravity!!



What's next ... The coming year will see a well rehab on well #2. This is a routine cleaning and check of the mechanics of the well. The pH adjustment system, originally installed in 1987, has served us well but is in need of updating. This will be handled mostly in house with support from a contractor.

## Why do you flush hydrants?

Hydrant flushing is done in the spring and "spot" flushing is done throughout the year. This is done to help ensure the very best water quality and to help remove any corrosion build up that may have happened since the last flushing. It also allows the water department to make sure every fire hydrant is fully functional and to address any that are not. During and for a very short period once flushing is done you may see/experience\_ "brown water". This is because the system is stirred up from flushing, actually the purpose, and some residual Keebs us clean debris did not get flushed out. Simply and working! let your water run for a bit and it should

clear up. If not, call the water facilities at 413-772-1539 and they can have a local hydrant flushed to speed up the process.

White Water... is exciting when you're rafting, but not when it is coming out of your faucet! Entrained air (dissolved oxygen) can manifest when the water is cold, like during winter, and is warmed up when it enters your home. The "cure" and test to prove it is just air in the water,

let it sit in a clear (actual glass container is best) glass and watch it. It will clear from the bottom up leaving crystal clear tasty water behind. That is the excess air being released from the water that is no longer under pressure.

# What is a cross connection? What can I do about it?



A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can come from your home. For instance, when you 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 a 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. Using an attachment on your hose called a backflow-prevention device can prevent this problem. The DPW recommends the installation of backflow 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 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. For additional information on cross connections and on the status of your water system's cross connection program please contact Mark Holley at 413-772-1539.

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)	2022	10.0	10.0		0.139 - 0.491	No	Runoff from fertilizer use; Erosion of natural deposits
Chlorine (ppm)	2022	4	4		0.19 - 2.18	No	Water treatment chemical used to control microbes
Total Trihalomethanes [THMs] (ppb)	2022	80	0	11.0	14.0- 27.1	No	RAA = Running Annual Average Disinfection by-products
Haloacetic Acids [HAA] (ppb)	2022	60	N/A	4.6	.50 – 17.2	No	RAA = Running Annual Average Disinfection by-products
Sodium (ppm)	2022	20	N/A		11	No	Runoff from storm water
Manganese (ppm)	2021	0.05mg/L - 0.3 mg/L	N/A		ND (<0.002 ug/L) ND (<0.0079ug/L)	No	Natural sources
Iron (ppm)	2021	0.3 mg/L	N/A		ND (<0.051ug/L) - 0.05	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)	2020	15	0		<0.001 - 0.0074	No	Household plumbing and service connections
Copper (ppm)	2020	1.3	1.3		0.0446 - 1.72	No	Household plumbing and service connections
Secondary Substances (unit of measure)	Year Sampled	SMCL	MCLG	Amount Detected	Range	Exceedance	
Turbidity*(NTU)	2022	Treat tech* = 1	N/A		.02 - 0.35		Soil runoff
Asbestos (ppm)	2022	0.17 mg/L	N/A	N/D			
PFAS (ppt)	2021	20ppt	N/A		ND - 1.1	No	Discharges and emissions from industrial and manufacturing sources associated with the production or

Greenfield has been mandated in the testing for Per- and Polyfluoroalkyl Substances (PFAS). After having four consecutive quarters of non detection in source waters we have a waiver from quarterly testing. We will be testing at the DEP recommended intervals going forward. The link below is to MASS DEP's website that has additional information on testing, results, and concerns. https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas

#### **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 Crytosporidium 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.

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

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

