

What's new...

New technology keeps the water running!

During the summer of 2014 the Millbrook well field received an upgrade to the command and control systems. These upgrades included Variable Frequency Drives and a new Programmable Logic Controller. These new pieces allow for the slowing down of the pumping rates of each well individually or collectively when the demand for water is less than 100%. The new Logic Controller will allow some smaller pumps in the corrosion control system to be shut off when not needed. This should translate into savings in both electrical usage and wear and tear on the wells and pumps.

As an added benefit these upgrades have replaced aged infrastructure that was well beyond its useful life, and with no spare parts available represented a threat to the resiliency of the water system.

And the good news! This upgrade was paid for by incentives from Northeast Utilities (at the time) and a gap funding grant from the Department of Energy and Resources, which means no direct cost to the users of the water system!

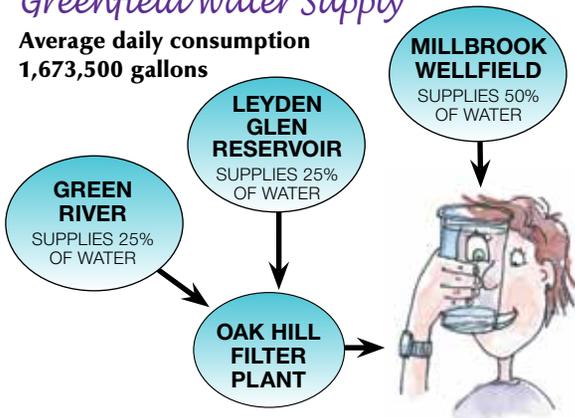


Past to present...

New technology, equipment and tools upgrade our water system.

Greenfield Water Supply

Average daily consumption
1,673,500 gallons



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 town to insure the water maintains high quality as it travels through miles of distribution lines.



WATER FACTS

- 3% of Earth's water is fresh water.
- 97% of the water on Earth is salt water
- 68.7% of the fresh water on Earth is trapped in glaciers.
- Water can dissolve more substances than any other liquid including sulfuric acid.
- Approximately 400 billion gallons of water are used in the United States per day.
- The first water pipes in the US were made from wood (bored logs that were charred with fire).
- At 1 drip per second, a faucet can leak 3,000 gallons of water per year.

http://water.epa.gov/learn/kids/drinkingwater/water_trivia_facts.cfm

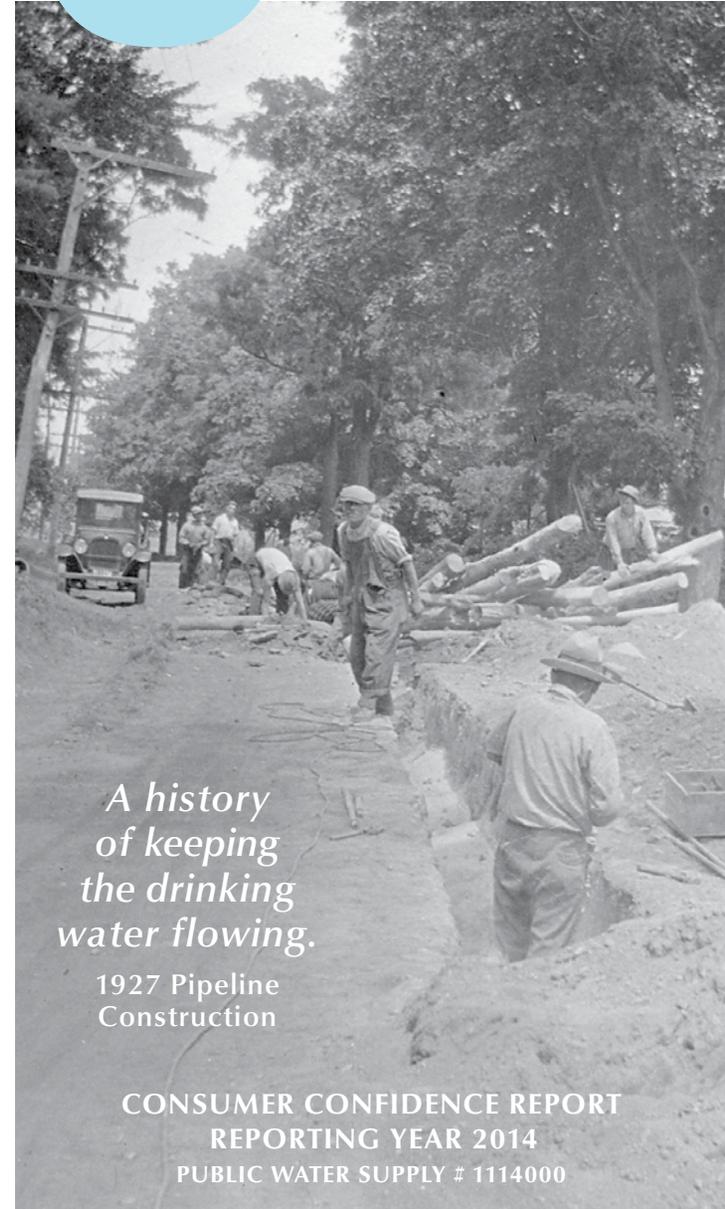
Why do you flush hydrants? Isn't it a waste of water?

Hydrant flushing is done in the late spring and "spot" flushing is done throughout the year. This is done to help ensure water quality, to clear the mains of tuberculation (corrosion buildup), and to make sure every hydrant works correctly when they are needed! Brown water may result. Keep the faucet running until the brown water stops.



WATER QUALITY REPORT 2014

GREENFIELD, MASSACHUSETTS
MAYOR WILLIAM MARTIN



A history of keeping the drinking water flowing.

1927 Pipeline Construction

CONSUMER CONFIDENCE REPORT
REPORTING YEAR 2014

PUBLIC WATER SUPPLY # 1114000

Commonly asked questions...

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 own 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 fire hydrant use in the town) 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 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 town. 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.

Questions... call us!

Water quality questions:

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

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

Department of Public Works
413-772-1528 ext 100 or 106

Hazardous Waste Disposal:

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



Thank you for
conserving
water!

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

CHEMICAL PARAMETERS

Substance/year	Units	Highest Level Allowed (EPA's MCL)*	Highest Level Detected	Range of Detected Levels	Ideal Goals (EPA's MCLG)*	Major Sources in Drinking Water
Nitrate '14	ppm	10.0	0.35	0.087 - 0.35	10.0	Runoff from fertilizer use; Erosion of natural deposits.
Chlorine '14	ppm	MRDL= 4	1.27	0.24 - 1.27	MRDLG = 4	Water treatment chemical used to control microbes
Total Trihalomethanes '14	ppb	80.0	20.3 RAA	8.9 - 20.25	0	RAA = Running Annual Average Disinfection by-products
Haloacetic Acids '14	ppb	60.0	12.9 RAA	5.9 - 12.93	N/A	RAA = Running Annual Average Disinfection by-products
Turbidity* '14	NTU	Treat tech* = 1	0.18	.02 - 0.18	none	Soil runoff
Lead '14	ppb	Action level* = 15	2.8 90th percentile	0.5 - 12.0 no exceedance	0	Household plumbing and service connections
Copper '14	ppm	Action level* = 1.3	1.00 90th percentile	0.160 - 1.10 no exceedance	1.3	Household plumbing and service connections
Sodium '14	ppm	20.0	14	2.7 - 14.0	N/A	Runoff from storm water
Sulfate '12	ppm	N/A	12.0	6.0 - 12.0	N/A	Natural sources
Manganese '14	ppm	0.05 mg/L 0.3 mg/L	0.035	ND (<0.002ug/L) ND - 0.035	N/A	Natural sources
Iron '14	ppm	0.3 mg/L	0.16	ND (<0.051ug/L) - 0.16	N/A	Natural sources
Barium '14	ppm	0.2 mg/L	0.0089	0.0089	N/A	Natural sources
Nickel '11	ppm	No current MCL	0.0013	ND (<0.001) - 0.0013	N/A	Natural sources

DEFINITIONS:

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 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>