



## 2020 WATER QUALITY REPORT SOUTH HADLEY FIRE DISTRICT NO. 2

WATER DEPARTMENT

PWSID# 1275001

### WATER COMMISSIONERS

**Frank DeToma, Chairman**  
**Katharine Bedard, Clerk**  
**Dan Luis, Member**

For more information regarding this report contact:  
Mark Aiken, Water Superintendent, Phone: 413-532-9210

Office Hours are Monday through Friday, 8:30 A.M. till 2:30 P.M.

South Hadley Fire District No.2 Water Department is proud to be your local water service provider. We are pleased to present to you the Annual Water Quality Report for the year 2020. This report is designed to inform you about the quality of your water and 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 and protect our water resources. We are committed to ensuring the quality of your water. Please take time to review this report. It provides details about the source and quality of your drinking water using data from water quality testing conducted for our system between January and December 2020.

In 2020 we pumped 169,785,000 gallons of water from our ground water wells. Delivering safe drinking water to our customers is our highest priority. Our team appreciates the trust you put in us every day when you turn on the tap. We are committed to honoring that trust and delivering a quality product and world class service to our customers for less than a penny a gallon. If you have any questions or comments about your drinking water on this report, please call our office at 413-532-9210.

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**Beginning in 2016, South Hadley Fire District No.2 (SHFD2) no longer mails individual copies of the Consumer Confidence Report to customers, as it is available electronically by following the link on your water bill. Printed copies will be available in our office on or before July 1, 2021. If you have any questions, please contact the Water Department during regular business hours, Monday through Friday, from 8:30 AM until 2:30 PM**

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## South Hadley Fire District No. 2 Water Quality Report – Monitoring Results for Drinking Water

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 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, (800)-426-4791. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

*The water quality information presented in the table(s) is from the most recent round of testing done in accordance with the regulations. All data shown were collected during the last calendar year unless noted in the table(s).*

### WATER QUALITY TEST RESULTS

CONTAMINANT	UNIT	MCL EPA'S LIMITS	MCLG Health Goals	LEVEL Detected	VIOLATION (yes/no)	Year Sampled	Potential Source of Contamination
Arsenic	ppm	0.01	0.01	<0.0005	NO	2020	Erosion of natural deposits; and agricultural pollution
Chlorine	ppm	4	4	.38	NO	2020	Water additive used to control microbes
Copper	ppm	1.3 = AL	1.3	0.484 90 <sup>th</sup> percentile	NO	2020	Corrosion of household plumbing systems; erosion of natural deposits; Leaching from wood preservatives. 20 sites sampled
Lead	ppb	15 = AL	0	.0053 90 <sup>th</sup> percentile	NO	2020	Corrosion of household plumbing systems; Erosion of natural deposits. 20 sites sampled.
Nitrate Well - 1	ppm	10	10	1.08	NO	2020	Run off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrate Well - 2	ppm	10	10	1.07	NO	2020	Run off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrate Well - 1	ppm	1	1	<.004	NO	2020	Run off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrate Well – 2	ppm	1	1	<.004	NO	2020	Run off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Perchlorate	ppb	2	2	<0.5	NO	2020	Industrial Byproduct
Sodium -Well 1	ppm	20	20	<0.5	NO	2020	Naturally Occurring
Sodium - Well 2	ppm	20	20	7.1	NO	2020	Naturally Occurring
Total Trihalomethanes	ppm	.080	.080	.00314	NO	2018	Disinfection by product

### DEFINITIONS

- MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed 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.
- AL (Action Level):** the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow
- 90th Percentile:** 90% of samples are equal to or less than the number in the chart.
- NA:** Not Applicable.
- PPB** (parts per billion): micrograms per liter (ug/l).
- PPM** (parts per million): milligrams per liter (mg/L).
- pCi/L** (picocuries per liter): a measure of radioactivity
- ND:** Not Detectable
- MRLD (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 control of microbial contaminants (ex. Chlorine, chloramines, chlorine dioxide).
- MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a drinking water disinfectant below which there is no known of expected risk to health. MRDLs do not reflect the benefits of the use of disinfectants to control microbial contaminants.



**Important Health Information:** Some people may be more vulnerable to contaminants in drinking water than the general population.

Immuno-compromised persons such as people with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/Aids or other immune system disorders, some elderly, and infants may be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (center for disease control) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other micro contaminants are available

from the Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that the tap water is safe to drink, The Mass DEP and EPA prescribe regulations that limit the number of certain contaminants in water provided by public works systems. The Food and Drug Administration (FDA) and the Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

**The U.S. Environmental Protection Agency (EPA) wants you to know:** 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 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 maybe 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, this 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 agriculture, urban storm water runoff, and residential uses.

**Organic chemical contaminants,** including synthetic and volatile organic chemicals, which are by-products of industrial 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. For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

**Your Water Source;** South Hadley Fire District No. 2 pumps groundwater from our wells at Dry Brook Station Aquifer MASS DEP # 04G and 05G. The quality of water that we are able to pump in any given minute, day, month or year is strictly governed by the Massachusetts Department of Environmental Protection. Back-up water supplies would come from South Hadley Fire District No. 1 in case of an emergency. We have seven (7) interconnections between the two systems. We add sodium hypochlorite (liquid chlorine) for disinfection to maintain compliance with MCLs or action levels.

## **Educational Information**

"If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The South Hadley Fire District No. 2 Water Department 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: [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)."

## Educational Information

### What is lead:

Major sources of lead in drinking water are corrosion of household plumbing systems, and erosion of natural deposits.

**Health Effects:** Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink water containing lead in excess of the action level over many years could develop kidney problems or high blood pressure.

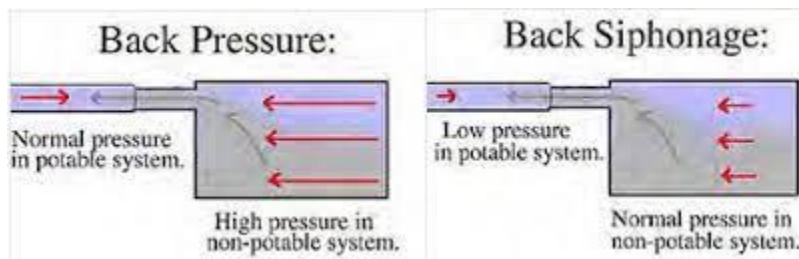
### What is copper:

Major sources of copper in drinking water are corrosion of household plumbing systems, erosion of natural deposits, and leaching from wood preservatives. Health Effects: Copper is an essential nutrient, some people who drink water containing copper in excess of the action level over a relatively short time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. Anyone with Wilson's Disease should consult their personal doctor.

If you are concerned about lead or copper levels, you may wish to have your water tested. Running your tap for 30 seconds to two minutes before use will significantly reduce the levels of lead and copper in the water. Additional information is available from the U.S. Environmental Protection Agency's Safe Drinking Water Hotline or at:

[www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)

## Cross-Connection Contamination



Cross-connections that could contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (back siphonage). Community water supplies are continually jeopardized by cross-connection unless appropriate valves, known as backflow prevention devices, are installed and maintained. For more information, visit the Web site of the American Backflow Prevention Association ([www.abpa.org](http://www.abpa.org)) for a discussion on current issues.

What you can 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 involve unprotected garden hoses. There are very simple steps that you, as a drinking water user, can take to prevent such hazards:

- Never submerge a hose in soapy water buckets, pet watering containers, pools, tubs, sinks, drains, or chemicals.
- Never attached a hose to a garden sprayer without the proper backflow preventer.
- Buy and install a hose bib vacuum breaker on every 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.

## UNREGULATED CONTAMINANTS

Unregulated contaminants are those for which there are no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water whether future regulation is warranted.

AS SET BY EPA			DIST. 2 WATER					
CONTAMINANT		UNIT	MCL	MCLG	LEVEL DETECTED	VIOLATION	YEAR SAMPLES	POTENTIAL SOURCE OF CONTAMINATION
IRON	WELL 1	PPM	N/A	0.3	0.024	NO	2020	Erosion of natural deposits
IRON	WELL 2	PPM	N/A	0.3	0.095	NO	2020	Erosion of natural deposits
MANGANESE	WELL 1	PPM	N/A	0.05	<.001	NO	2020	Erosion of natural deposits
MANGANESE	WELL 2	PPM	N/A	0.05	0.003	NO	2020	Erosion of natural deposits

**In order to maintain water quality** within your home, it is suggested by the South Hadley Fire District No. 2 Water Department that you remove and clean each faucet aerator twice annually. Aerators are the screens that screw into the end of the faucet.

Our goal is to provide you with a continuous supply of quality drinking water. We welcome comments and suggestions you may have to help us reach and maintain that goal.

### Protecting Your Water Source

**SWAP** (Source Water Assessment Program) is a program of the Massachusetts Department of Environmental Protection (DEP) to study existing and potential threats to the quality of public drinking water sources throughout the state. Sources are rated depending upon their contaminant susceptibility.

The Massachusetts Department of Environmental Protection (DEP) has completed a Source Water Assessment Program (SWAP) report for the South Hadley Fire District No. 2 Water Department. We use this report to assess and improve our water. Copies of this report are available upon request, or by logging on to:

[www.mass.gov/dep/water/drinking/swapreps.htm](http://www.mass.gov/dep/water/drinking/swapreps.htm).

### Water Quality Statement

The data presented in the Table Detected Contaminants is the same data collected to comply with U.S. EPA and the Massachusetts state monitoring and testing requirements. We have learned through our testing that some contaminants have been detected well below the levels set by the EPA. To assure high quality water, individual water samples are taken each year for chemical, physical and microbiological tests. Tests are done on water taken from the source and, for lead and copper monitoring, from the customer's tap. Testing can pinpoint a potential problem so that preventative action may be taken.



## SOUTH HADLEY WATER COMMISSIONERS

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The South Hadley Fire District No. 2 Water Commission is the governing and policy-making body of the District No. 2 Water Department.

**To become involved with the water quality** decisions you may participate in public meetings, held every second Thursday of each month at 5:30 P.M. (unless otherwise posted), in the South Hadley Fire District No. 2 meeting room, 20 Woodbridge Street, South Hadley.

### Public Participation How You Can Get Involved:

- Reading the information provided in bill inserts and special mailings
  - Contacting the department directly with questions or to discuss issues
  - Attending the Annual Meeting on the First Monday in May.
  - Voting on Election Day.
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## Reading Your Bill

Water usage is billed six times per year.

On your billing statement, you will notice a row of numbers similar to this example:

Reading dates	Service Description	Previous	Current	Usage	Charges
	Water Usage	481200	484800	3600	\$171.00

- The first number listed is your past meter (Previous) reading in cubic feet (CF).
- The second number is your current meter (Present) reading in cubic feet (CF).
- The third number is the total amount of water you have consumed (Usage) in cubic feet (CF).
- The fourth number listed is the cost (Charges) of the water used. (36 x 4.75 = 171.00)

*Note: The numbers used are from an example bill. Actual numbers will vary.*

### Calculating Water Usage (cubic feet to gallons).

Your water meter measures and records water usage in cubic feet. Water billing is calculated by the unit, with each unit equal to 100 cubic feet. There are 7.48 gallons in one cubic foot of water, or 748 gallons in each hundred-cf unit of water.

To calculate how many gallons you have used, multiply the hundred-cf units consumed by 748.

In our example, a rate payer has used 3600 cubic feet, or 36 hundred-cf units of water.

- 36 X 748 = 26,928 gallons consumed.
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## ONE DRIP AT A TIME!

How much water am I losing from that dripping faucet?

### One Drip per second turns into:

1 Minute loss = 1/12 ounce  
1 Hour loss = 6 ounces  
1 Day loss = 1 gallon & 1 pint  
1 Week loss = 8 gallons  
1 Month loss = 34 gallons

### Two Drips per second turns into:

1 Minute loss = 1/3 ounce  
1 Hour loss = 20 ounces  
1 Day loss = 3 2/3 gallons  
1 Week loss = 26 gallons  
1 Month loss = 100 gallons

### Drops Breaking into Stream turns into:

1 Minute loss = 2 ounces  
1 Hour loss = 1 gallon  
1 Day loss = 24 gallons  
1 Week loss = 175 gallons  
1 Month loss = 700 gallons



### It's Only a Small Drip...Right?

Slow drips of water can add up quickly. A toilet that “keeps running” after you flush or a sink that drips after it is turned off can waste thousands of gallons of water a year. A small leak in your automatic irrigation system can waste about 6,300 gallons of water per month! If the drip is hot water, you are paying for wasted energy too. Fix leaks as soon as you find them. They won’t go away on their own.

#### A “Running” Toilet Leak

One of the costliest household wastes of water is a leaky toilet. According to the American Water Works Association, toilets account for 45% of all indoor water use in a typical residence. It is estimated that 20% of all toilets leak! Toilet leaks can range from small to large, constant to random, or from being heard or silent. They all cause wasted water. Depending on the water pressure to your house, a running toilet can leak over 1 gallon of water per hour which adds up to 26 gallons per day.

Fortunately, most toilet leaks are relatively easy to fix. In a properly functioning toilet, no water should move from the tank to the bowl, unless the toilet is being flushed. A leaking toilet loses water from the tank to the bowl without being flushed. A toilet can also waste water due to an improperly adjusted or broken fill (ballcock) valve causing water to enter the tank and flow into the overflow tube. Most toilet leaks are caused by a faulty valve (also known as “flush valve ball” or “tank stopper”). A flapper valve should be replaced every 3 to 5 years. Most hardware, plumbing and home improvement stores supply flappers.

LEAK SOURCE	TYPICAL LEAKAGE	GALLONS/ DAY USED	GALLONS/MONTH USED	UNITS/MONTH USED
Running Toilet	1 gallon/hour	26	780	1
Leaking Faucet	1 drip/second	9	259	0.3
Leaking Showerhead	10 drips/minute	1.4	43	0.05
In-ground irrigation	1/32” in diameter (about the thickness of a dime)	210	6,300	8
A garden hose left running or a missing sprinkler head ½” in diameter	½” in diameter	4,320	129,600	173

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## FAQs

### 1. Do I need to filter my water?

Your tap water is perfectly safe without a filter. You might consider using a filter if you have internal problems with the plumbing in your home.

### 2. Is bottled water safer than tap water?

Keep in mind that many bottled waters are actually bottled tap water. Bottled water is regulated through the Food and Drug Administration and is considered a food product therefore, it is not as heavily regulated as tap water. Also, South Hadley Fire District No.2 is required to release information on their water quality, while bottled water companies are not.

### 3. How often is our drinking water tested for contaminants?

South Hadley Fire District No.2 takes hundreds of water samples throughout the year and makes them available to you in our annual Consumer Confidence Report (CCR). Our compliance with all state and federal drinking water laws remains exemplary.

### 4. Is there fluoride in my drinking water?

There is a small amount of naturally occurring fluoride (averaging .07 mg/L). We do not add any fluoride to the water.

### 5. Is the water that comes from the fire hydrant the same water used for drinking?

Yes. The fire hydrants and domestic services are tapped off of the same water mains.

### 6. How often is my meter read / when will I be billed?

Your water meter will be read and billed on a bi-monthly basis a total of six (6) billings. Billing dates, January 1, March 1, May 1, July 1, September 1, November 1).

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**Mark Aiken, Superintendent**

**Web Address:** [www.shdistrict2.org](http://www.shdistrict2.org)

**Office Hours:** Mon - Fri: 8:30am - 2:30pm

**Tele:** 413-532-9210

**Mailing Address:**

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Water Department  
20 Woodbridge Street  
South Hadley MA 01075

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