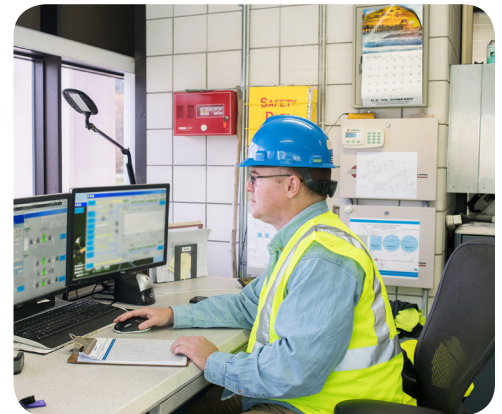




# Springfield Water and Sewer Commission **Annual Drinking Water Quality Report** for Calendar Year 2019



## 2019 Board of Commissioners

Daniel Rodriguez, *Chairman*  
Vanessa Otero, *Commissioner*  
William E. Leonard, *Commissioner*

**(413) 452-1300**  
**info@waterandsewer.org**  
**waterandsewer.org**  
PWS# 1281000

The Springfield Water and Sewer Commission provides this report to meet federal and state Safe Drinking Water Act Requirements.

The Board of Commissioners meets monthly. Please call 413-452-1300 for meeting dates and times or to obtain extra copies of this report.

## Contact Information

**Public Information:**  
**(413) 452-1302**

**Billing / Account Questions:**  
**(413) 452-1393**

**Water Quality Concerns and  
Water/Sewer Emergencies (24/7):**  
**(413) 310-3501**

**Water/Sewer Service, Repairs (24/7):**  
**(413) 310-3501**






Message from the Executive Director

Dear Customer,

The Springfield Water and Sewer Commission is committed to providing clean drinking water and protecting public health. From the source in Cobble Mountain Reservoir to the faucet in your home the Commission is dedicated to the stewardship of your drinking water. The Commission analyzes approximately 50,000 water sample tests throughout the year to ensure water quality. This report summarizes the Commission’s water quality tests in 2019 and provides information about the source of your drinking water, treatment, and other useful information.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail. This report is available online at [www.waterandsewer.org/waterqualityreport](http://www.waterandsewer.org/waterqualityreport).

  
**Joshua D. Schimmel**  
Executive Director

Special Health Information

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 (1-800-426-4791).

**Important Information about Your Drinking Water**

**Availability of Monitoring Data for Unregulated Contaminants for Springfield Water and Sewer Commission**

As required by US Environmental Protection Agency (EPA), our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a public health protection standard.

**What should I do?**

You do not have to do anything but as our customers you have a right to know that these data are available.

**For more information**

For information on the Unregulated Contaminant Monitoring Program, visit the MassDEP website at <https://www.mass.gov/info-details/public-drinking-water-system-operations> scroll to "Federal Rules and Acts" and then to "EPA-UCMR".

If you wish to speak with someone at the Commission about the results, please contact Jaimye Bartak at 413-452-1302.

Protecting Your Water Source

Located in the hills 20 miles west of the City of Springfield, and surrounded by 14,000 acres of protected forest land, the Cobble Mountain Reservoir (Source ID 1281000-02S) and the Borden Brook Reservoir (Source ID 1281000-04S) in Blandford and Granville, MA are the sources of your drinking water. The pristine location and acres of protected land minimize the risk of water supply contamination, as the forest provides a natural buffer to surrounding development and natural filtration of potential contaminants. The Commission’s Watershed Protection Plan includes a blueprint for active forest management, promoting diversity of tree species, and healthy forest regeneration. While the majority of the land surrounding the reservoirs remains protected, the Commission maintains a strong land acquisition program to continue to enhance source protection and water quality. In 2019, to further understand the water quality in the reservoirs, the Commission implemented an enhanced water sampling program to characterize the raw water in the reservoirs.

The Massachusetts Department of Environmental Protection (MassDEP) completed a Source Water Assessment that evaluates the susceptibility of public water supplies to contamination from surrounding land uses. A susceptibility ranking of **moderate** was assigned to the Commission’s system using the information collected. Risks identified include residential land use, transportation rights of way, and agriculture. The complete Source Water Assessment Program report is available by contacting the Commission at 413-452-1300 or at <https://www.mass.gov/doc/western-region-source-water-assessment-protection-swap-program-reports/download>.

**CORROSION CONTROL**  
Phosphate is added to the water to protect pipes from leaching lead or copper, and sodium hydroxide is added to adjust pH.

**CHLORINATION**  
Chlorine is added to kill any disease-causing microorganisms.

Important Information from U.S. EPA and MassDEP

**What could be in the water before it is treated?**  
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 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, humans, and wildlife.

**Inorganic contaminants**, such as salts and metals, 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** may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

**Organic chemical contaminants** include synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

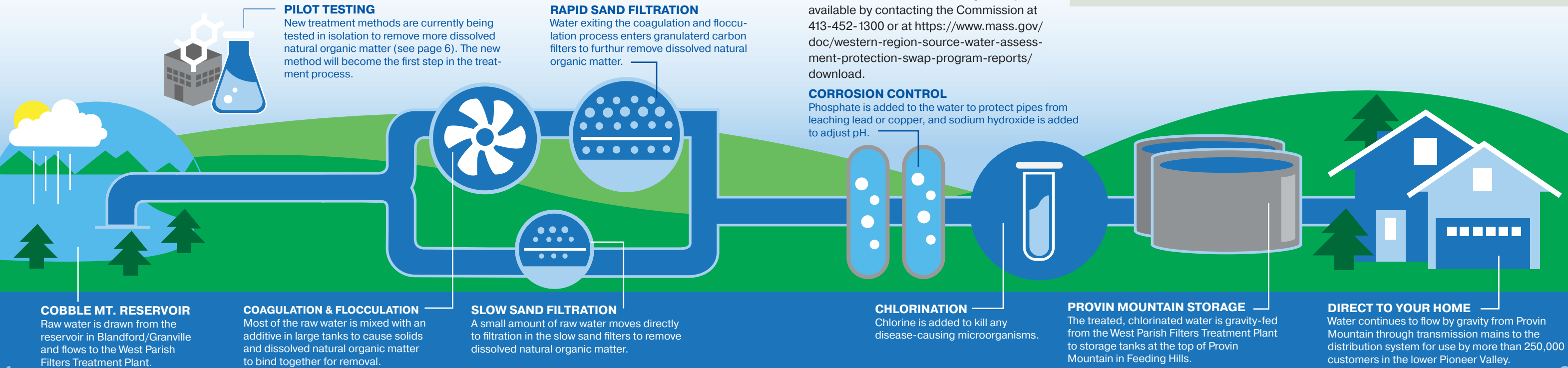
**Radioactive contaminants** can be naturally occurring or be the result of oil and gas production, and mining activities.

Drinking water, including bottled water, may reasonably be expected to contain at least 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure that tap water is safe to drink, the Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations 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 (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

How We Treat Your Water

Clean drinking water is delivered at an annual average of 30 million gallons per day to retail customers in Springfield and Ludlow and wholesale customers in Agawam, East Longmeadow, and Longmeadow. Water from Borden Brook and Cobble Mountain Reservoirs undergoes the following treatment process at West Parish Filters Water Treatment Plant in Westfield:



2019 SWSC WATER QUALITY INFORMATION TABLE

The table below shows detections of regulated contaminants through water quality testing in 2019 (unless otherwise specified), and how they compare to state and federal standards. The Commission’s state-certified laboratory analyzed approximately 50,000 water quality tests in 2019.

Private certified laboratories were also utilized to analyze water samples. The testing results are from finished water in the distribution system. In 2019, sample results for one regulated contaminant exceeded regulatory limits. Information about this exceedance is also contained in this report.

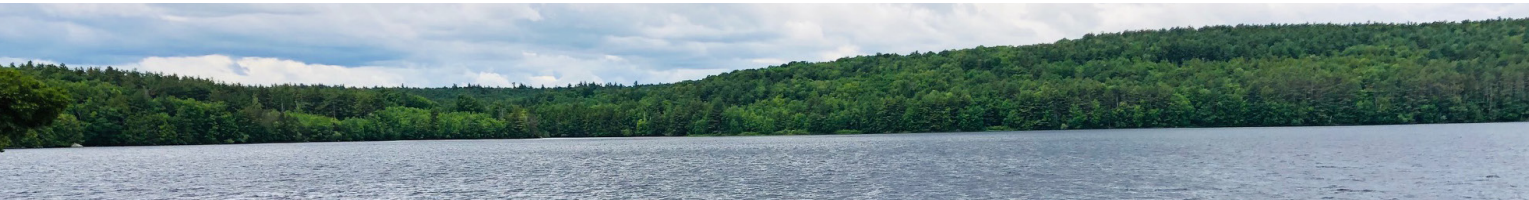
| PUBLIC WATER SUPPLY IDENTIFICATION #1281000 |                   |       |   |                                  |   |           |  |
|---|-------------------|-------|---|----------------------------------|---|-----------|--|
| DISINFECTANTS                               | DATE              | MRDLG | MRDL  | HIGHEST QUARTERLY ANNUAL AVERAGE | RANGE DETECTED AT INDIVIDUAL SAMPLING SITES | VIOLATION | MAJOR SOURCES IN DRINKING WATER  |
| Residual Free Chlorine (ppm)                | Daily             | < 4.0 | 4.0   | 0.73                             | ND - 1.98                                   | No        | Water additive used to control microbes  |
| BACTERIA                                    | DATE              | MCLG  | MCL   | HIGHEST DETECTED LEVEL           | RANGE DETECTED AT INDIVIDUAL SAMPLING SITES | VIOLATION | MAJOR SOURCES IN DRINKING WATER  |
| Heterotrophic Plate Counts (HPC)†           | 5/23/19, 10/31/19 | NA    | TT  | 2.0                              | ND - 2 CFU/ml                               | No        | Heterotrophic plate count is an indicator method that measures a range of naturally-occurring bacteria in the environment. |
| INORGANICS                                  | DATE              | MCLG  | MCL   | HIGHEST DETECTED LEVEL           | RANGE DETECTED AT INDIVIDUAL SAMPLING SITES | VIOLATION | MAJOR SOURCES IN DRINKING WATER  |
| Nitrate (ppm)                               | 11/1/2019         | 0     | 10  | 0.0757                           | N/A   | No        | Erosion of natural deposits, stormwater, fertilizer run-off  |
| Barium (ppm)                                | 11/1/2019         | 0     | 2   | 0.0080                           | N/A   | No        | Erosion of natural deposits  |
| RADIONUCLIDES                               | DATE              | MCLG  | MCL   | HIGHEST DETECTED LEVEL           | RANGE DETECTED AT INDIVIDUAL SAMPLING SITES | VIOLATION | MAJOR SOURCES IN DRINKING WATER  |
| Gross Alpha (pCi/L)                         | 9/18/2015         | 0     | 15  | 0.262                            | N/A   | No        | Erosion of natural deposits  |
| Radium-226 & Radium-228 Combined (pCi/L)    | 9/18/2015         | 0     | 5   | 0.25                             | N/A   | No        |  |
| TURBIDITY *                                 | DATE              | MCLG  | TT  | HIGHEST SINGLE MEASURMENT        | LOWEST MONTHLY PERCENTAGE                   | VIOLATION | MAJOR SOURCES IN DRINKING WATER  |
| Rapid Sand Filtration ** (NTU)              | Daily Compliance  | N/A   | 5   | 0.49                             | N/A   | No        | Soil Runoff  |
| Rapid Sand Filtration ** (NTU)              | Monthly           | N/A   | TT: at least 95% of samples per month below 0.3 | NA                               | 100%  | No        |  |
| Slow Sand Filtration *** (NTU)              | Daily Compliance  | N/A   | 5   | 0.28                             | NA  | No        |  |
| Slow Sand Filtration *** (NTU)              | Monthly           | N/A   | TT: at least 95% of samples per month below 0.3 | NA                               | 100%  | No        |  |

† Heterotrophic Plate Count is not associated with health effects but is a method that measures the bacterial quality of water as an indicator of the adequacy of water treatment.

| UNREGULATED****              | DATE   | ORSG/SMCL        | MCL  | HIGHEST SINGLE MEASURMENT | RANGE DETECTED  | VIOLATION | MAJOR SOURCES IN DRINKING WATER                                    |
|------------------------------|--------|------------------|------|---------------------------|-----------------|-----------|--|
| Sodium (ppm)                 | Yearly | ORSG = 20        | None | 14.6                      | N/A             | No        | Natural sources; runoff from use of de-icing compounds on roadways |
| Manganese (ppm)              | Yearly | SMCL = 0.05      | None | 0.0143                    | 0.0078 - 0.0143 | No        | Erosion of natural deposits  |
| Aluminum (ppb)               | Weekly | SMCL = 200       | None | 61.9                      | 0 - 61.9        | No        | Residue from treatment process                                     |
| Chloroform (ppb)             | Yearly | ORSG = 70        | None | 5.98                      | N/A             | No        | By-product of drinking water chlorination                          |
| Bromodichloromethane 3 (ppb) | Yearly | None Established | None | 0.79                      | N/A             | No        |  |

2019 SWSC WATER QUALITY INFORMATION TABLE (CONTINUED)

| PUBLIC WATER SUPPLY IDENTIFICATION #1281000            |                                       |      |           |              |   |           |   |
|--|---------------------------------------|------|-----------|--------------|---|-----------|---|
| DISINFECTION BY-PRODUCTS                               | DATE                                  | MCLG | MCL       | HIGHEST LRAA | RANGE DETECTED AT INDIVIDUAL SAMPLING SITES | VIOLATION | MAJOR SOURCES IN DRINKING WATER           |
| TTHMs (ppb) (Total Trihalomethanes)                    | Quarterly                             | N/A  | 80 (LRAA) | 64.3         | 42.4 - 76.7                                 | No        | By-product of drinking water chlorination |
| Haloacetic Acids (HAA5) (ppb) (Total Haloacetic Acids) | Quarterly                             | N/A  | 60 (LRAA) | 77.4         | 41.2 - 81.8                                 | Yes       | By-product of drinking water chlorination |
| HAA5 (ppb) by site                                     | DATE                                  | MCLG | MCL       | Average      | Range Detected                              | Violation | Major Sources in Drinking Water           |
| 833 Page Blvd.   | 3/6/2019,6/3/2019, 9/3/2019,12/3/2019 | N/A  | 60        | 70.3         | 55.4 - 70.0                                 | Yes       | By-product of drinking water chlorination |
| Catalina Pump Station                                  | 6/3/2019, 9/3/2019,12/3/2019          | N/A  | 60        | 70.9         | 67.1 - 77.9                                 | Yes       |   |
| Chapin St. Pump Station                                | 6/3/2019                              | N/A  | 60        | 62.3         | 46.7 - 57.3                                 | Yes       |   |
| 1400 State St.   | 3/6/2019,6/3/2019, 9/3/2019,12/3/2019 | N/A  | 60        | 75.2         | 54.9 - 81.8                                 | Yes       |   |
| North Main St. Fire                                    | 3/6/2019,6/3/2019, 9/3/2019,12/3/2019 | N/A  | 60        | 77.4         | 41.2 - 79.2                                 | Yes       |   |
| Center St. Fire Station, Ludlow                        | 6/3/19, 9/3/19,12/3/19                | N/A  | 60        | 71.6         | 68.2 - 76.1                                 | Yes       |   |
| 1043 Sumner Ave.                                       | 3/6/2019,6/3/2019, 9/3/2019,12/3/2019 | N/A  | 60        | 73.3         | 66.6 - 78.6                                 | Yes       |   |
| 322 Main St.   | 3/6/2019,6/3/2019, 9/3/2019,12/3/2019 | N/A  | 60        | 69           | 60.6 - 69.2                                 | Yes       |   |



As required by US Environmental Protection Agency (EPA), our water system has sampled for a series of unregulated contaminants (shown in the two green tables). Unregulated contaminants are those that do not yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a public health protection standard.

| Fourth Unregulated Contaminant Monitoring Rule (UCMR4) | DATE                 | ORSG/SMCL      | MCL       | HIGHEST DETECTED LEVEL | RANGE DETECTED AT INDIVIDUAL SAMPLING SITES | VIOLATION | Major Sources in Drinking Water           |
|--|----------------------|----------------|-----------|------------------------|---|-----------|---|
| Manganese (ppb)  | Quarterly            | SMCL = 50      | N/A       | 13.2                   | 4.9 - 13.2                                  | No        | Erosion of natural deposits               |
| HAA6Br (ppb)   | Quarterly            | N/A            | N/A       | 4.5                    | 1.9 - 4.5                                   | No        | By-product of drinking water chlorination |
| HAA9 (ppb)   | Quarterly            | N/A            | N/A       | 69.4                   | 36.3 - 69.4                                 | No        |   |
| Sample Sites   | HAA6Br (ppb) by site |                |           | HAA9 (ppb) by site     |   |           | By-product of drinking water chlorination |
|  | Average              | Range Detected | Violation | Average                | Range Detected                              | Violation |   |
| 833 Page Blvd.   | 3.5                  | 2.7 - 4.3      | No        | 56.6                   | 47.9 - 63.7                                 | No        |   |
| Catalina Pump Station                                  | 3.6                  | 2.9 - 4.4      | No        | 59.1                   | 48.6 - 69.4                                 | No        |   |
| Chapin St. Pump Station                                | 3                    | 2.2 - 3.7      | No        | 48.6                   | 43.4 - 54.5                                 | No        |   |
| 1400 State St.   | 3.3                  | 2.2 - 3.7      | No        | 53.4                   | 37.9 - 66.2                                 | No        |   |
| North Main St. Fire                                    | 3.6                  | 2.8 - 4.3      | No        | 57.7                   | 45.4 - 65.8                                 | No        |   |
| Center St. Fire Station, Ludlow                        | 3                    | 1.9 - 3.6      | No        | 52.1                   | 36.3 - 65.8                                 | No        |   |
| 1043 Sumner Ave.                                       | 3.6                  | 3.0 - 4.5      | No        | 58.9                   | 49.3 - 66.8                                 | No        |   |
| 322 Main St.   | 3.6                  | 2.8 - 4.5      | No        | 56.7                   | 47.5 - 62.8                                 | No        |   |



## Glossary of Terms

**CFU (Colony Forming Unit)** -

\***Heterotrophic Plate Counts (HPC)**-Heterotrophic Plate Count is not associated with health effects but is a method that measures the bacterial quality of water as an indicator of the adequacy of water treatment.

**LRAA (Locational Running Annual Average)** - The average of four consecutive quarters of data taken at one location.

**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.

**MRDL (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.

**MRDLG (Maximum Residual Disinfectant Level Goal)** - 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.

**N/A** - Not Applicable

**NTU (Nephelometric Turbidity Units)** - A numeric value indicating the cloudiness of water.

**ORSG (Massachusetts Office of Research and Standards Guideline)**  
The concentration of a chemical in drinking water, at or below which adverse health effects are unlikely to occur after chronic (lifetime) 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 measure of radioactivity.

**SMCL (Secondary Maximum Contaminant Level)** - The highest level of a contaminant that is allowed in drinking water for the secondary contaminants. These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

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

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

\*\* **Rapid Sand Filtration** - The turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed a maximum of 1.0 NTU in any single measurement.

\*\*\* **Slow Sand Filtration** The turbidity level of the filtered water shall be less than or equal to 1.0 NTU in 95% of the measurements taken each month and shall not exceed a maximum of 5.0 NTU in any single measurement.

\*\*\*\* **Unregulated Contaminants** - Substances for which EPA has set guidelines but not established drinking water standards.



*West Parish Filters Water Treatment Plant in Westfield*

## Cross Connection Control Program

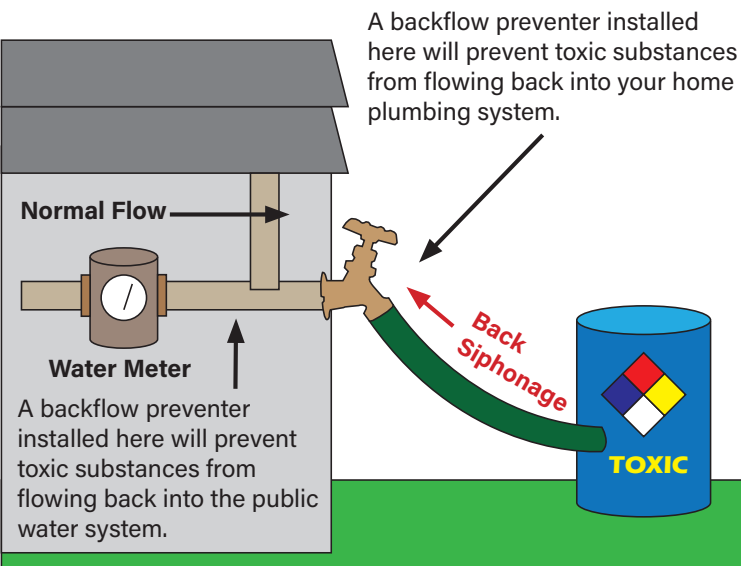
A cross connection is formed at any point where a drinking water line connects to a polluted source, such as boilers, air conditioning systems, fire sprinkler systems, irrigation systems, laboratory equipment, plating tanks, or chemical vats. In residences, a common cross connection is a garden hose attached to a fertilizer or chemical sprayer container, or a hose inserted into a pool. If water pressure drops, perhaps due to nearby fire hydrant use or a water main break, the resulting vacuum can pull pollutants back into the water system.

To prevent contamination through cross connections:

- Never submerge a hose in soapy water buckets, pet watering containers, pools, tubs, sinks, drains, or chemicals.
- Never attached a hose to a chemical sprayer without a backflow preventer.
- Buy and install an inexpensive hose connection vacuum breaker on every threaded water fixture.
- Buy appliances and equipment with a backflow preventer.

If you are an owner of industrial, institutional, or commercial property, you must have your facility's internal plumbing surveyed for cross connection hazards, install proper backflow devices, or eliminate cross connections entirely. For more information, contact the Commission's Cross Connection Control Program at 413-310-3501.

### Backflow Prevention



## Public Notification – Haloacetic Acid (HAA5)

### Maximum Contaminant Level (MCL) Exceedance

In 2019 the Commission reported four quarterly exceedances of the MCL for haloacetic acids to MassDEP. The MCL, or regulatory limit, for HAA5 is 60 parts per billion (ppb) for the locational running annual average (LRAA) at a sample station. The LRAA is determined by averaging the prior four quarterly samples at one location. In accordance with regulations, we issued a Public Notification by direct mail and in bills, the news media, and the internet for each exceedance.

This was not an emergency, and there was no immediate or short-term health risk. Customers were and are still advised that they can drink and use their water as usual. HAA5 is regulated due the potential health risks if consumed at elevated levels over decades or a lifetime. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. More information and full 2019 HAA5 test results are available at:

<http://waterandsewer.org/haa5-frequently-asked-questions/>

HAA5 forms when chlorine, required for disinfection, interacts with naturally dissolved organic matter (NOM). NOM enters Cobble Mountain Reservoir, the main source of the Commission's drinking water supply, through rain and snow runoff from the surrounding forest. Since high amounts of precipitation in the fall of 2018 caused an increase in NOM in Cobble Mountain Reservoir, the raw water quality has continued to evolve. The amount and types of dissolved NOM in Cobble Mountain Reservoir dictate the amount of chlorine to maintain safe disinfection. The presence of NOM and the chlorine dosage required at the time samples were taken for HAA5 resulted in higher than typical HAA5 levels in the Commission's treated water. The Commission has been working with experts to address this issue and advance both short-term and long-term solutions.

### What is the Commission Doing to Reduce HAA5?

#### Short-term Solutions

- Evaluating the amount of chlorine needed through intensive data analysis
- Optimizing filtration techniques to remove more NOM
- Reducing water storage time and adding mixers to storage tanks
- Conducting water main flushing in warmer months

#### Long-term solutions

The Commission began a comprehensive planning process in 2015 to address potential water quality concerns and make significant upgrades to the West Parish Filters Water Treatment Plant, including adding a new treatment method to remove more dissolved NOM. In the fall of 2019 a pilot study commenced to determine the most effective treatment method. As part of this study an operational pilot plant (see below) was built on-site at West Parish Filters and is testing several different treatment options in 2019 and 2020. The Commission also implemented an enhanced raw water sampling program to characterize the dynamics of dissolved NOM in the reservoir water. The research from the pilot study and enhanced raw water sampling program will inform which new treatment method will work best to address long-term water quality issues, including HAA5. Following design, review and approval by the Massachusetts Department of Environmental Protection, the Commission will begin construction on the new treatment process.

**Customers with further questions about this notice may call 413-452-1302.**



*At Left: A pilot plant was constructed in summer 2019 on the grounds of West Parish Filters. Inside, various new treatment methods are added to a replication of the existing treatment process to test outcomes.*

*Top Right: The pilot plant uses raw water from the reservoir but is isolated from the current day-to-day treatment process.*

*Bottom Right: Commission staff launch a boat into Borden Brook Reservoir to conduct enhanced raw water sampling.*



## IMPORTANT WATER INFORMATION INFORMACIÓN IMPORTANTE SOBRE EL AGUA

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Ce rapport contient des renseignements très importants sur votre eau potable. Veuillez le traduire ou parler à quelqu'un qui le comprend.

Este relatório contém informações muito importantes sobre a sua água potável. Por favor, traduzir ou falar com alguém que entende.

Questo rapporto contiene informazioni molto importanti sulla vostra acqua potabile. Si prega di tradurlo o parlare con qualcuno che lo capisce.

Raport ten zawiera bardzo ważne informacje na temat swojej wody pitnej. Proszę przetłumaczyć lub porozmawiać z kimś, kto go rozumie.

Báo cáo này có chứa thông tin rất quan trọng về nước uống của bạn. Xin vui lòng dịch nó hoặc nói chuyện với một ai đó hiểu nó.



Follow us on Facebook and  
Twitter! @SpfldWaterSewer



### *Flushing: Why do we do it?*

*Flushing is a valuable and routine maintenance tool used by water systems to enhance water quality and improve fire protection. Flushing brings fresh water to outlying areas of the system and scours away any roughness along the inside of pipes (known as tuberculation). The Commission regularly flushes all areas of its system on a rotating basis.*

## Lead and Drinking Water

Lead is not present in the source water in Cobble Mountain Reservoir or treated water entering the distribution system. The most common sources of lead poisoning are paint and dust containing lead. In cases where lead is detected in drinking water, it is usually due to leaching from pipes that contain lead, such as lead service lines, or plumbing, fixtures, or solder in the home/building. Leaching is most likely to occur when the water is not moving, generally overnight or at other times when water is not used for several hours.

In 1992 the Commission began to proactively remove lead service lines from the distribution system. As of November 2005, all known lead service lines have been removed and replaced. At the treatment plant, water is treated with orthophosphate to inhibit the corrosion of home/building plumbing and to help prevent lead from leaching into water. Testing for the presence of lead and copper is regulated under EPA's Lead and Copper Rule. Testing takes place in three-year cycles.

### Health Risks of Lead in Drinking Water

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 Commission 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.**

### LEAD AND COPPER SAMPLING TABLE - 2018

| SUBSTANCE    | MCLG | MCL       | 90th PERCENTILE SAMPLE | SAMPLING SITES EXCEEDING THE ACTION LEVEL | VIOLATION | MAJOR SOURCES IN DRINKING WATER         |
|--------------|------|-----------|------------------------|---|-----------|---|
| Copper (ppm) | 1.3  | AL = 1.3  | 0.0814                 | 0 out of 50                               | No        | Corrosion of household plumbing systems |
| Lead (ppb)   | 0    | AL = 15.0 | 0.0047                 | 2 out of 50                               | No        |   |

The above table represents the last round of lead and copper sampling that took place in the summer of 2018. The next required round of lead and copper sampling will take place in the summer of 2021 per regulatory requirements.

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

**90th Percentile** - Out of every 10 homes sampled, 9 were at or below this level.

**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.