



# 2022 Consumer Confidence Report

## Southwick Water Department • Southwick, Massachusetts

### MASSDEP PWSID # 1279000



This report is a snapshot of the drinking water quality that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards. We are committed to providing you with this information because informed customers are our best allies.

#### PUBLIC WATER SYSTEM INFORMATION

Address: 454 College Highway  
Southwick, MA 01077  
Contact Person: Randal Brown,  
P.E., NGICP, DPW Director  
Telephone #: 413-569-6772  
Internet Address:  
www.southwickma.org/water-division

#### Water System Improvements

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MassDEP). MassDEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water. To ensure that we provide the highest quality of water available, your water system is operated by a Massachusetts certified operator who oversees

the routine operations of our system. As part of our ongoing commitment to you, last year we made the following improvements to our system: a new chemical feed system for Well 1 was put online in July 2022 and continued routine flushing at various locations. The items addressed from the December 2021 Sanitary Survey by Mass DEP included creating a formal Asset Management Plan, update the

listing Capital Improvement Plan, update of the System Staffing & Comprehensive Operations Plan, posting of emergency contact numbers at our storage tank facility and guard installation at the well motor shaft for safety purposes.

**Opportunities for Public Participation**  
If you would like to participate in discussions regarding your water quality, you may

attend the following meetings: Board of Water Commissioners typically meet on the first and/or third Thursday each month at 6pm at Town Hall unless posted otherwise.

**YOUR DRINKING WATER SOURCE**  
**Where Does My Drinking Water Come From?**  
Southwick's water system is composed of 51 miles of water mains, 2 wells, 4 pumping stations, and 2 storage tanks.

Southwick also maintains an interconnection with SWSC to provide a supplemental water supply source during times of peak demand. Southwick's drinking water originates from the Great Brook Aquifer. Over the years, the Town has purchased over 232 acres of land over the aquifer in order to control land use and preserve water quality.

Source Name	Mass DEP Source ID#	Source Type	Location of Source
Great Brook Well # 1	1279000-01G	Ground Water	Northeast Section of Southwick
Great Brook Well # 2	1279000-02G	Ground Water	Northeast Section of Southwick
Cobble Mountain Reservoir	1281000-02S	Surface Water	Interconnection with Springfield Water
Borden Brook Reservoir	1281000-04S	Surface Water	Interconnection with Springfield Water

#### Is My Water Treated?

Our water system makes every effort to provide you with safe and pure drinking water. To improve the quality of the water delivered to you, we add a disinfectant to protect you against microbial contaminants. The water quality of our system is constantly monitored by us and MassDEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required.

#### How Are These Sources Protected?

MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving this water system. The SWAP Report assesses the susceptibility of public water supplies.

#### What is My System's Ranking?

A susceptibility ranking of high was assigned to this system using the information collected during the assessment by MassDEP.

#### Where Can I See The SWAP Report?

The complete SWAP report is available at the DPW Office at Town Hall and online at <https://www.mass.gov/service-details/the-source-water-assessment-protection-swap-program>. For more information call the Southwick Water Department at 413-569-6772.

#### SUBSTANCES FOUND IN TAP WATER

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, and wildlife.

**Inorganic contaminants** - such as salts and metals, which can be naturally-occurring or result from urban stormwater 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 stormwater runoff, and residential uses.

**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 stormwater 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, the Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of cer-

tain 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.

All 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). 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 some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. Southwick 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 <http://www.epa.gov/safewater/lead>.

#### IMPORTANT DEFINITIONS

**Maximum Contaminant Level (MCL)** - 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.

**Maximum Contaminant Level Goal (MCLG)** - 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.

**Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a wa-

ter system must follow.

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

**Secondary Maximum Contaminant Level (SMCL)** - These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

**Unregulated Contaminants** - Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.

**Office of Research and Standards Guideline (ORSG)** - This is 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.

**Running Annual Average (RAA)** - The average of four consecutive quarter of data.

**Maximum Residual Disinfectant Level (MRDL)** - The highest level of a disinfectant (chlorine, chloramines, chlorine dioxide) 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 (chlorine, chloramines, chlorine dioxide) below which there is no known expected risk to health.

MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppm = parts per million, or milligrams per liter (mg/l)

ppb = parts per billion, or micrograms per liter (ug/l)

ppt = parts per trillion, or nanograms per liter

N/A = Not Applicable  
ND = No Detect

#### WATER QUALITY TESTING RESULTS

##### What Does This Data Represent?

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

MassDEP has reduced the monitoring requirements for synthetic organic contaminants, inorganic contaminants and perchlorate because the source is not at risk of contamination. The last samples collected for these contaminants were found to meet all applicable US EPA and MassDEP standards.

	Date(s) Collected	90th Percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Source of Contamination
<b>Lead and Copper - Residential</b>							
Lead (ppm)	11/23/2022 & 11/30/2022	0.002	0.015	0	40	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	11/23/2022 & 11/30/2022	0.111	1.3	1.3	40	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
	Date(s) Collected	Range Detected	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Source of Contamination
<b>Lead and Copper - School &amp; Early Education and Care Facilities</b>							
Lead (ppm)	11/14/2022 & 11/15/2022	0-0.0015	0.015	0	4	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	11/14/2022 & 11/15/2022	0-0.0996	1.3	1.3	4	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y / N)	Possible Source(s) of Contamination
<b>Inorganic Contaminants</b>							
Barium (ppm)	11/17/2020	0.252	0.252	2	2	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (ppm)	10/11/2022	3.06	3.01-3.06	10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Perchlorate (ppb)	7/13/2021	0.74	0.74	2	N/A	N	Rocket Propellants, fireworks, munitions, flares, blasting agents
PFAS6 (ppt)	Quarterly in 2022	2.1	ND-2.1	20	N/A	N	Discharges and emissions from industrial and 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.
<b>Disinfectants and Disinfection By-Products</b>							
Total Trihalomethanes (TTHMs) (ppb)	Quarterly in 2022	89.49	60.1-89.49	80	N/A	N	Byproduct of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	Quarterly in 2022	119.4	54.4-119.4	60	N/A	Y	Byproduct of drinking water disinfection
Chlorine (ppm) (free)	Daily in 2022	0.206	0.002-0.34	4	4	N	Water additive used to control microbes
<b>Unregulated and Secondary Contaminants</b>							
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 and whether future regulation is warranted.							
Unregulated Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG		Possible Source
Sodium (ppm)	11/17/2020	9.81	9.81	N/A	20		Discharge from the use and improper storage of sodium - containing de-icing compounds or in water-softening agents
** Iron (ppb)	4/12/2022	< 50	< 50	300	N/A		Naturally occurring, corrosion of cast iron pipes
** Manganese (ppb)	4/12/2022	< 2	< 2	50	Health Advisory of 300		Natural sources as well as discharges from industrial uses
pH	Daily	7.56	7.56	6.5-8.5	N/A		Runoff and leaching from natural deposits; seawater influence

#### COMPLIANCE WITH DRINKING WATER REGULATIONS

##### Does My Drinking Water Meet Current Health Standards?

We are committed to providing you with the best water quality available. However some contaminants that were tested last year did not meet all applicable health standards regulated by the state and federal government. Due to contaminant violations of haloacetic acids (HAA5) during quarters 1, 2, 3 & 4 of 2022 our system took the following corrective actions for each violation: mailed a public notification to all service connections in our system, posted the notice on the town website along with additional information pertaining to HAA5s, and a press release was also prepared. This was not an emergency. If it was you would have been notified within 24 Hours. HAA5 is a group of five haloacetic acid compounds which form when disinfectants react with natural organic matter (NOM) in the water. Some people

who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. In addition, young children (including infants), pregnant women, or those who may become pregnant may be potentially more susceptible to risks from exposures to chemicals, such as HAA5. It is important to note that, as water travels through the water distribution system and blends with water from other sources, the HAA5s dissipate and concentrations decrease significantly. Southwick Water Department has been closely monitoring the situation with Springfield Water & Sewer Commission (SWSC). SWSC continues to advance efforts on a long-term solution which includes constructing a new treatment plant. Construction has begun. SWSC is accelerating this work as quickly as possible while committing significant resources to the process. Land management tools are also being implemented per a Source Water Protection Plan to optimize

raw water quality.

#### EDUCATIONAL INFORMATION Cross-Connection Control and Backflow Prevention

The Southwick Water Department makes every effort to ensure that the water delivered to your home and business is clean, safe and free of contamination. Our staff works very hard to protect the quality of the water delivered to our customers from the time the water is extracted via deep wells from underground aquifers or withdrawal point from a surface water source, throughout the entire treatment and distribution system. But what happens when the water reaches your home or business? Is there still a need to protect the water quality from contamination caused by a cross-connection? If so, how?

##### What is a cross-connection?

A cross-connection occurs whenever the drinking water supply is or could be in contact with potential sources of pollution or contamination. Cross-connections exist in

pipings arrangements or equipment that allows the drinking water to come in contact with non-potable liquids, solids, or gases (hazardous to humans) in event of a backflow.

##### What is a backflow?

Backflow is the undesired reverse of the water flow in the drinking water distribution lines. This backward flow of water can occur when the pressure created by equipment or a system such as a boiler or air-conditioning is higher than the water pressure inside the water distribution line (back pressure), or when the pressure in the distribution line drops due to routine occurrences such as water main breaks or heavy water demand causing the water to flow backward inside the water distribution system (back siphonage). Backflow is a problem that many water consumers are unaware of, a problem that each and every water customer has a responsibility to help prevent.

##### What can I 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, they are:

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

in any 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.
- Buy appliances and equipment with backflow preventers.
- Buy and install backflow prevention devices or assemblies for all high and moderate hazard connections.

If you are the owner or manager of a property that is being used as a commercial, industrial, or institutional facility you must have

your property's plumbing system surveyed for cross-connection by your water purveyor. If your property has NOT been surveyed for cross-connection, contact your water department to schedule a cross-connection survey.

