

Auburn Water District

2023 Drinking Water Quality Report



SOUTHBIDGE STREET COURT WATER TREATMENT PLANT
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION PUBLIC WATER SUPPLY ID # 2017000

Board of Commissioners
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2023 DRINKING WATER QUALITY REPORT

AUBURN WATER DISTRICT, AUBURN, MASSACHUSETTS

PWS ID #2017000

The Auburn Water District (AWD) is pleased to present its Annual Water Quality Report for the calendar year 2023. This report is a snapshot of drinking water quality that we provided during the 2023 calendar 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 information because informed customers are our best allies.

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).

I. PUBLIC WATER SYSTEM INFORMATION

Compliance with Safety and Health Standards

The Department of Environmental Protection (MassDEP) routinely monitors our water system, while the District inspects and monitors the water system daily. The MassDEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. 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.

Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, you are invited to attend any of our Water Commissioner's meetings. Meetings are generally held the 3rd Wednesday of each month at 9:00 AM at the Water District office located at 75 Church St., Auburn, MA, unless otherwise posted. Should you have any questions or require additional information, please call the Auburn Water District Office during normal business hours, Monday to Friday, 8:00 AM – 4:00 PM at (508) 832-5336. Please visit our website at www.auburnwater.com

II. YOUR DRINKING WATER SOURCES

Is My Water Treated?

Our water system makes every effort to provide you with high quality drinking water. To improve the quality of the water delivered to you, we treat it to remove several contaminants.

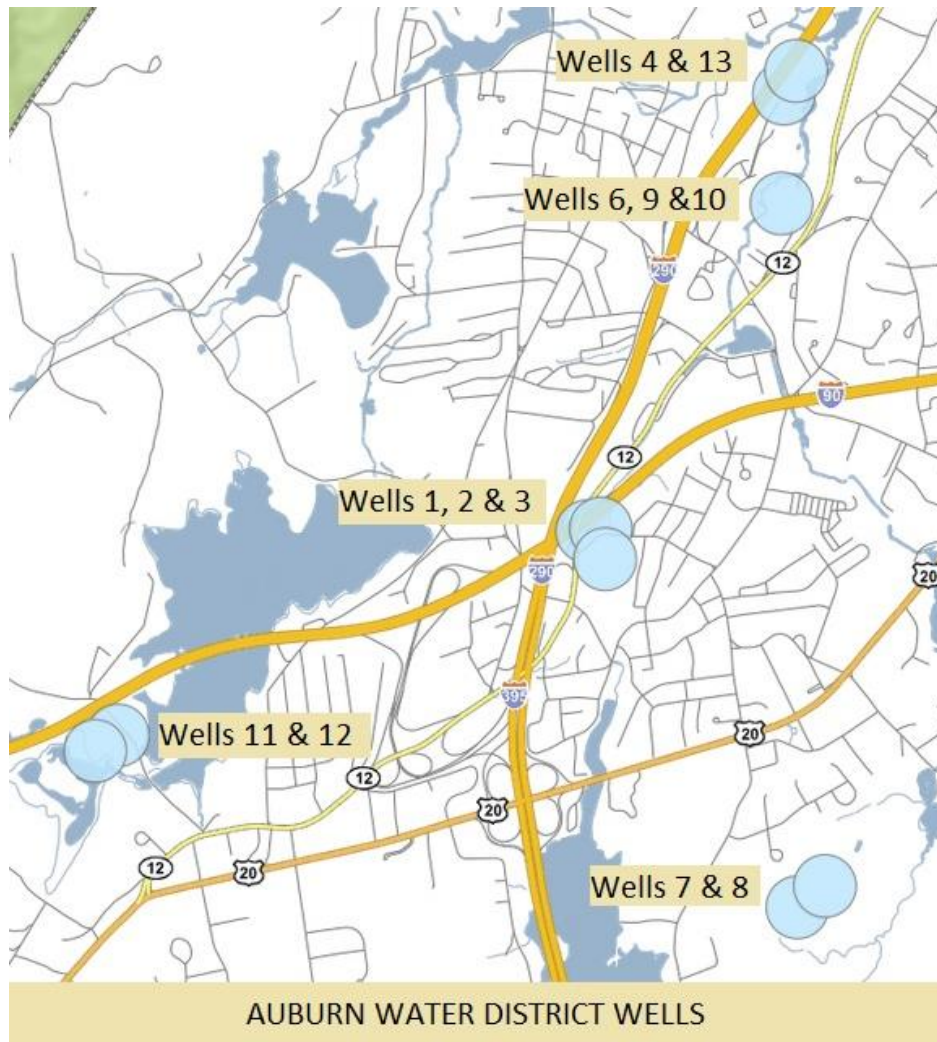
- We add a disinfectant (chlorine) to protect you against microbial contaminants.
- We chemically treat the water to adjust the pH to reduce lead and copper concentrations that come from the household plumbing lines.
- We chemically treat and filter the water to reduce levels of iron, manganese, and arsenic.

The water quality of our system is constantly monitored by our licensed operators, and the MassDEP, to determine the effectiveness of existing water treatment and to determine if any additional treatment is required.

Where Does My Drinking Water Come From?

Your water is provided by the following sources listed below:

Source Name	DEP ID#	Source Type	Location of Source
Well # 1	2017000-01G	Groundwater	Church Street
Well # 2	2017000-02G	Groundwater	Church Street (off-line)
Well # 3	2017000-03G	Groundwater	Church Street
Well # 4	2017000-04G	Groundwater	Walsh Avenue
Well # 13	2017000-13G	Groundwater	Walsh Avenue
Well # 6	2017000-06G	Groundwater	Southbridge Street Court
Well # 9	2017000-09G	Groundwater	Southbridge Street Court
Well # 10	2017000-10G	Groundwater	Southbridge Street Court
Well # 7	2017000-07G	Groundwater	South Street (off-line)
Well # 8	2017000-08G	Groundwater	South Street (off-line)
Well # 11	2017000-11G	Groundwater	West Street
Well # 12	2017000-12G	Groundwater	West Street



How Are These Sources Protected?

The 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. A susceptibility ranking of “high” was assigned to this system using the information collected during the assessment by the MassDEP due to land uses within Water Supply Protection areas of our wells (Zone I and Zone II). The complete SWAP report is available at the Auburn Water Department, the Auburn Board of Health and online at <https://www.mass.gov/service-details/the-source-water-assessment-protection-swap-program>.

III. SUBSTANCES FOUND IN TAP WATER

In order to ensure that tap water is safe to drink, the 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. 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).

Sources of drinking water (both tap water and bottled water) can 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. The source of the Auburn Water is strictly from groundwater wells. 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, can naturally occur 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.

Sodium Information: Sodium is a naturally occurring common element found in soil and water. The sodium in our wells is caused by runoff of de-icing materials from the many miles of highways and local roads that traverse near our well sites. This is a public safety issue and as such we must balance the use of salt with the public safety of our roads. The Auburn Water District is aggressively working with MassDEP and MassDOT to develop alternatives to reduce the sodium levels in our wells around the highways in our watershed.

Sodium is necessary for the normal functioning of regulating fluids in human systems. Some people, however, have difficulty regulating fluid volume because of several diseases, including congestive heart failure and hypertension. The guideline of 20 mg/l (20 ppm) for sodium represents a level in water that physicians and sodium-sensitive individuals should be aware of in cases where sodium exposures are being carefully controlled. For additional information, contact your health care provider, your local Board of Health, or MassDPH's Bureau of Environmental Health Assessment at 1-617-624-5757.

Immuno-Compromised Persons: 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).

IV. WATER QUALITY TESTING RESULTS

What Does This Data Represent?

The water quality information presented in the table(s) are 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(s). Not listed are more than 100 other substances for which we tested that were not detected during 2023.

Lead and Copper

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. Auburn Water District is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components within our customer's homes and facilities. 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 the 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>**

Lead and Copper	Date(s) Collected	90 TH Percentile	Action Level (AL)	MCLG	# of Sites Sampled	# of Sites Above AL	Possible Source of Contamination
Lead (ppb)	2023	2.6	15	0	61	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2023	0.582	1.3	1.3	61	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Coliform Bacteria

Coliforms are bacteria that are naturally present in the environment and are not harmful themselves; however, their presence can be an indicator that other potentially harmful bacteria may be present. The District presently collects 16 coliform bacteria samples each month throughout the distribution system. The water entering our distribution system has been chlorinated, and the results represent the water we deliver to our customers.

Distribution System	Highest # Positive in a month	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination
Total Coliform	0	1	0	N	Naturally present in the environment
E.coli	0	*	0	N	Human or animal fecal waste

* Compliance with the E.coli MCL is determined upon additional repeat testing.

Regulated, Unregulated and Secondary Contaminants

Regulated Contaminant	Date(s) Collected	Highest Detect	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Inorganic & Organic Contaminants							
Arsenic (ppb)	2023	ND	ND	10	10	N	Naturally occurring compound from eroding / decomposing natural deposits,
Nitrate (ppm)	2023	1.81	0.138 - 1.81	10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
PFAS6 (ppt)	2023	17.6	7.70 – 17.6	20	--	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.
Gross Alpha (pCi/L)	2022	1.27	0.333 – 1.27	15	0	N	Erosion of natural deposits
Radium 226 & 228 (pCi/L)	2022	0.627	0.029 - 0.627	5	0	N	Erosion of natural deposits
Disinfection Contaminants							
Trihalomethanes (TTHMs) (ppb)	Quarterly	24.8	11.6 - 24.8	80	--	N	Byproduct of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	Quarterly	3.11	ND – 3.11	60	--	N	Byproduct of drinking water disinfection
Chloroform (ppb)	Quarterly	4.78	ND - 4.78	--	--	N	Byproduct of drinking water disinfection
Bromodichloromethane (ppb)	Quarterly	7.26	ND – 7.26	--	--	N	Byproduct of drinking water disinfection
Chlorodibromomethane (ppb)	Quarterly	4.54	ND - 4.54	--	--	N	Byproduct of drinking water disinfection
Bromoform (ppb)	Quarterly	0.82	ND - 0.82	--	--	N	Byproduct of drinking water disinfection
Chlorine (ppm)	Monthly	0.76	0.02 - 0.76	--	4	N	Water additive used to control microbes

Unregulated and Secondary Contaminant	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	Health Advisory or ORSG	Possible Source
Sodium (ppm)	2023	169 - 172	170	--	20	Natural sources; runoff from use as salt on roadways; by-product of treatment process
Alkalinity (ppm)	2023	20 - 160	93	none	--	Naturally occurring
Aluminum (ppm)	2021	ND – 0.311	0.11	0.2	--	Naturally occurring
Calcium (ppm)	2021	14.2 – 82.6	33.2	None	--	Naturally occurring
Chloride (ppm)	2021	68.4 - 919	3	250	--	Runoff from road de-icing, use of inorganic fertilizers, landfill leachates, septic tank effluents
Hardness (ppm)	2022	115 - 122	117	--	--	CaCO3 calcium carbonate
Iron (ppb)	2023	ND	ND	300	--	Naturally occurring, corrosion of cast iron pipes
Magnesium (ppm)	2022	3.88 - 4.10	3.99	none	--	Natural sources as well as discharges from industrial uses
Manganese (ppb)	2023	ND – 2.87	1.43	50	300*	Naturally occurring
Perfluorobutane sulfonic acid (PFBS) (ppt)	2023	1.7 – 3.1	2.35	none	--	Manmade chemical; used in products to make them stain, grease, heat, and water resistant
Perfluorohexanoic acid (PFHxA) (ppt)	2023	0.95 – 3.6	2.65	none	--	Manmade chemical; used in products to make them stain, grease, heat, and water resistant
pH	2023	7.33 - 8.16	--	6.5-8.5	--	Runoff and leaching from natural deposits
Potassium (ppm)	2021	3.37 - 63.5	39.1	none	--	Naturally occurring
Sulfate (ppm)	2021	0 - 30.9	15.4	250	--	Naturally occurring
Total Dissolved Solids (ppm)	2021	242 – 1,610	642	500	--	Erosion of natural deposits.
Zinc (ppm)	2021	ND - 166	83	5	--	Erosion of natural deposits, leaching from plumbing materials

Abbreviations

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

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.

mrem/year = millirems per year (a measure of radiation absorbed by the body)

ND = Not Detected

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.

pCi/L = Picocuries per liter

PFAS6 = Per- and polyfluoroalkyl substances

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

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

ppt = parts per trillion or nanograms per liter (ng/l)

RAA = Running Annual Average – the average of four consecutive quarters of data.

SMCL = Secondary Maximum Contaminant Level –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.

Unregulated Contaminants -Those for which USEPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist USEPA in deciding whether the contaminants should have a standard.

V. UNDERSTANDING PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Since October 2020, MassDEP promulgated a PFAS public drinking water standard, called a Massachusetts Maximum Contamination Level (MMCL), of 20 nanograms per liter (ng/L) (or parts per trillion (ppt)) – individually or for the sum of the concentrations of six specific PFAS. These PFAS are perfluorooctane sulfonic acid (PFOS); perfluorooctanoic acid (PFOA); perfluorohexane sulfonic acid (PFHxS); perfluorononanoic acid (PFNA); perfluoroheptanoic acid (PFHpA); and perfluorodecanoic acid (PFDA). MassDEP abbreviates this set of six PFAS as “PFAS6.” This drinking water standard is set to protect against adverse health effects for everyone consuming the water. The District has a dedicated informational web page for PFAS information. To learn more please visit our page:

<https://www.auburnwater.com/per-and-polyfluoroalkyl-substances-pfas/>

VI. CROSS-CONNECTION CONTROL AND BACKFLOW PREVENTION

The Auburn Water District 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 and sent through 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 and, if so, how?

What is a cross-connection?

A cross-connection is any actual or potential connection between the drinking water lines and potential sources of pollution or contamination, such as a piping arrangement 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 event.

What is backflow?

Backflow is the undesired reverse of the water flow in the drinking water distribution lines. This backward flow of the water can occur when the pressure created by equipment, such as a boiler or air-conditioning system, 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, more than half 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, including:

- NEVER submerge a hose in soapy water buckets, pet watering containers, pools, tubs, sinks, drains or chemicals.
- NEVER attach a hose to a garden sprayer without the proper backflow preventer.
- Buy and install a hose bib 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 in almost all hardware stores and home-improvement centers.
- Identify and be aware of potential cross-connections to your water line.
- Buy appliances equipped with backflow prevention devices.
- Buy and install backflow preventers 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-connections by your water supplier. If your property HAS NOT yet been surveyed, contact the District to schedule a cross-connection survey.

The Massachusetts Drinking Water Regulations, 310 CMR 22.00, require all public water systems to have an approved and fully implemented Cross-connection Control Program (CCCP). The District is working diligently to protect the public health of its drinking water customers from the hazards caused by unprotected cross-connections through the implementation of its cross-connection survey program, elimination or proper protection of all identified cross-connections, the registration of all cross-connections protected by reduced pressure backflow preventers (RPBPs) or double check valve assemblies (DCVAs), and the implementation of a testing program for all RPBPs and DCVAs.

Should you have any questions or require additional information on cross-connections, please call the Auburn Water District Office during normal business hours, M-F 8:00 AM – 4:00 PM, at (508) 832-5336.

VII. WATER CONSERVATION

Water conservation is encouraged year-round. Saving water can easily be achieved by being mindful of your daily habits, including taking a shorter shower, only running full loads of dishes and laundry, turning off the faucet while brushing your teeth, and more.

Why Conserve Water?

The simple answer: so, we have enough when we need it. By conserving water, we minimize those periods when water scarcity is a problem. This ensures there is enough water for our people, wildlife, and the environment – now and in the future.

How to save water: 5 tips for saving water around the home.

The majority of household water use comes from toilets, washing machines, showers, baths, faucets, and leaks, but what you can do to save water is fairly simple. These five water-saving tips will put you on the path to conserving water in your household.

1. **Update your toilet to a high-efficiency toilet.** High-efficiency toilets might sound a little confusing. What is there to be efficient about with a toilet? In this case, it's about conserving water, not energy. Whenever you flush a traditional toilet, you waste water. High-efficiency toilets can change all of that, reducing your water bill and helping you make more sustainable decisions.
2. **Use the right amount of water for each load of laundry.** Typically, 15-40 percent of indoor home water use comes from doing laundry. Save water by making sure to adjust the settings on your machine to the proper load size.
3. **Water plants wisely.** Water your lawn or garden early in the morning or late in the evening, so the water lasts and is not immediately evaporated by the hot sun.
4. **Check for and repair leaks.** An average of 10,000 gallons of water is wasted every year due to household leaks. One of the most effective ways to cut your water footprint is to repair leaky faucets and toilets.
5. **Turn off the water.** Teach your whole household to turn off the faucet while brushing teeth or shaving. Every little bit of water conservation helps!

To learn more about why we should conserve water and what you can do as a resident, go to: <https://www.mass.gov/conservemawater>.

VIII. STAY CONNECTED WITH THE DISTRICT

Connect with Us!

Customers that wish to stay informed can go to our website:

[Auburnwater.com](https://www.auburnwater.com)

Follow us on AWD's social media:



On Instagram

@auburnwaterdistrict

On X (formerly Twitter)

@auburnwater