



2018 ANNUAL DRINKING WATER QUALITY REPORT
For
East Bridgewater Water Department
East Bridgewater, Massachusetts
MASSDEP PWSID # 4083000

This report is a snapshot of 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 information because informed customers are our best allies.

PUBLIC WATER SYSTEM INFORMATION

Address: 100 Willow Avenue, East Bridgewater, MA 02333
Contact Person: Jason Trepanier, Superintendent, Water Department
Telephone No.: 508-378-1620
Internet Address: www.eastbridgewaterma.org/Public_Documents/EBridgewaterMA_DPW/index

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 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. As part of our ongoing commitment to you, last year we made the following improvements to our system: installed 1,125 new meters and rehabilitated Well No. 1 and Well No. 3.

Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, you are encouraged to attend any of our regularly scheduled meetings with the Board of Selectmen.

YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?

The drinking water supplied by our system comes from five wells. Four wells are located in the eastern section of town and are connected to the filtration plant at the Crescent Street site. The fifth well is located in the Elmwood section of town and is connected to a second filtration plant. Our system has interconnections with the Towns of Brockton, Bridgewater, Halifax, Hanson, and Whitman for emergency situations and backup supplies.

Source Name	MassDEP Source ID#	Source Type	Location of Source
Well No. 1	4083000-01G	Groundwater	Pond Street
Well No. 2	4083000-02G	Groundwater	Crescent Street
Well No. 3a	4083000-03G	Groundwater	Washington Street
Well No. 3b	4083000-06G	Groundwater	Washington Street
Well No. 4	4083000-04G	Groundwater	Hudson Street
Well No. 5	4083000-05G	Groundwater	East Street

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 treat it to remove several contaminants. The filtration plants remove iron and manganese from the water before it is delivered to your home or business or to our water storage tank. 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.

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How Are These Sources Protected?

MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply sources serving this water system. The SWAP Report assesses the susceptibility of public water supplies. The East Bridgewater Water Department was assigned a susceptibility ranking of high based on the MassDEP assessment of potential pollution sources in our watershed. The complete East Bridgewater SWAP Report is available at the Water Department office and online at <http://www.mass.gov/eea/agencies/massdep/>. In light of our system's ranking, we participate in several programs to protect our water supply. For more information, call Jason Trepanier at 508-378-1620.

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.

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.

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/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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 East Bridgewater Water Department is responsible for providing high quality drinking water,

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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.

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 or expected risk to health. NOTE: MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Action Level (AL) – The concentration of a contaminant which, 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.

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

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

pCi/l = picocuries per liter (a measure of radioactivity)

NTU = Nephelometric Turbidity Units

ND = Not Detected

N/A = Not Applicable

TON = Threshold Odor Number

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

Massachusetts 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.

WATER QUALITY TESTING RESULTS

What Does This Data Represent?

The water quality information presented in the tables 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 tables.

	Date(s) Collected	90 TH percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Source of Contamination
Lead (ppb)	8/23-24/2016	1	15	0	30	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	8/23-24/2016	0.08	1.3	1.3	30	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

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	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
Fecal Coliform or <i>E. coli</i>	0	*	0	N	Human and animal fecal waste

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

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
Inorganic Contaminants							
Fluoride (ppm)	2/27/2018	ND	ND	4	4	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)	2/27/2018	2.64	1.69 – 2.64	10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Nitrite	1/18/2017	ND	ND	1	1	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Perchlorate	8/8/2018	0.21	0.19 – 0.21	2	N/A	N	Rocket propellants, fireworks, munitions, flares, blasting agents
Volatile Organic Compounds							
Tetrachloroethylene (PCE) (ppb)	3/12/2018	ND	ND	5	0	N	Discharge from factories and dry cleaners; residual of vinyl-lined water mains
Radioactive Contaminants							
Gross Alpha (pCi/l) (minus uranium)	4/25/2012	0.29	-0.1 – 0.29	15	0	N	Erosion of natural deposits
Radium 226 & 228 (pCi/L) (combined values)	4/25/2012	0.72	0.33 – 0.72	5	0	N	Erosion of natural deposits
Disinfectants and Disinfection By-Products							
Total Trihalomethanes (TTHMs) (ppb)	Quarterly in 2018	21.0	5.9 – 25.0	80	-----	N	Byproduct of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	Quarterly in 2018	7.1	ND – 10.8	60	-----	N	Byproduct of drinking water disinfection
Chlorine (ppm) (free)	1/3/2012	0.97	0.0 – 0.97	4	4	N	Water additive used to control microbes

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.

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Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Inorganic Contaminants						
Sodium (ppm)	2/28/2018	27.3 – 41.9	34.6	---	20	Natural sources; runoff from use as salt on roadways; by-product of treatment process
Nickel (ppm)	3/12/2018	ND – 0.009	0.0045	---	0.1	Discharge from industrial processes
Sulfate (ppm)	12/22/2015	17.6 – 24.0	20.8	250	---	Natural sources
Other Organic Contaminants - When detected at treatment plant as VOC residuals, not TTHM compliance						
Bromodichloromethane (ppb)	3/1/2018 11/6/2018	0.8 – 0.9	0.85	---	---	By-product of drinking water chlorination
Bromoform (ppb)	3/1/2018 11/6/2018	0.7 – 0.8	0.75	---	---	By-product of drinking water chlorination
Chloroform	3/1/2018 11/6/2018	ND – 0.8	0.4	---	70	By-product of drinking water chlorination
Dibromochloromethane (ppb)	3/1/2018 11/6/2018	1.4 – 1.6	1.5	---	---	By-product of drinking water chlorination
Secondary Contaminants						
Iron (ppb)	12/22/2015	ND	ND	300	---	Naturally occurring, corrosion of cast iron pipes
Manganese* (ppb)	4/11/2017	ND	ND	50	Health Advisory of 300	Erosion of natural deposits
Aluminum (ppb)	12/22/2015	ND – 0.01	0.01	200	---	Byproduct of treatment process
Chloride (ppm)	12/22/2015	47.2 – 61.7	54.5	250	---	Runoff from road de-icing, use of inorganic fertilizers, landfill leachates, septic tank effluents, animal feeds, industrial effluents, irrigation drainage, and seawater intrusion in coastal areas
Copper (ppm)	12/22/2015	0.02	0.02	1	---	Naturally occurring organic material
Odor (TON)	12/22/2015	5	5	3	---	Erosion of natural deposits; leaching from wood preservatives
PH	12/22/2015	7.6 – 7.7	7.7	6.5 – 8.5	---	----
Total Dissolved Solids (TDS) (ppm)	12/22/2015	170 – 210	190	500	---	Erosion of natural deposits
Zinc (ppm)	12/22/2015	0.010 – 0.011	0.011	5	---	Erosion of natural deposits, leaching from plumbing materials
Unregulated Contaminants						
1,4-dioxane (ppb)	3/31/2015	0.08	0.08	---	0.3	By-product of industrial processes
Chlorate (ppb)	3/31/2015 4/8/2015	110 – 220	165	---	---	By-product of drinking water chlorination
Chromium-6 (ppb)	3/31/2015 4/8/2015	0.07 – 0.09	0.08	---	---	By-product of industrial processes
Strontium (ppb)	3/12/2015 3/31/3015	100 – 160	117.5	---	---	Naturally occurring

* US EPA has established a lifetime health advisory (HA) value of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1000 ppb for acute exposure.

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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. We are proud to report that last year your drinking water met all applicable health standards regulated by the state and federal government.

A Notice of Noncompliance was issued for missed samples of Disinfection Byproducts – Total Trihalomethanes and Haloacetic Acids in February 2018. The samples were taken on March 1, 2018. The test results were excellent. The drinking water that we supply continues to be safe and potable.

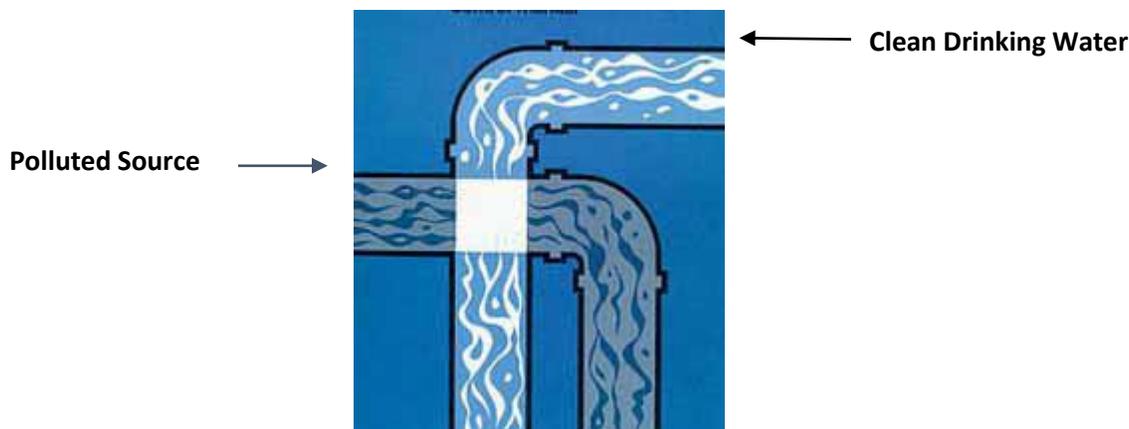
EDUCATIONAL INFORMATION

Do I Need To Be Concerned About Certain Contaminants Detected In My 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 East Bridgewater 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>.

Sodium sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure, should be aware of the sodium levels where exposures are being carefully controlled.

What Is a Cross Connection? What Can I Do About It?



A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can come from your own home. For instance, you're going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops (say because of fire hydrant use in the town) when the hose is connected to the fertilizer, the fertilizer may be sucked back into the drinking water pipes through the hose. Using an attachment on your hose called a backflow prevention device can prevent this problem.

The East Bridgewater Water Department recommends the installation of backflow prevention devices, such as a low-cost hose bib vacuum breaker, for all inside and outside hose connections. You can purchase this at a hardware store or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system in your town. For additional information on cross connections and on the status of your water system's cross connection program, please call Jason Trepanier at 508-378-1620.