2020 Annual Water Quality Report

East Windsor Municipal Utilities Authority
PWS ID: NJ1101002

Our Commitment to Quality

Once again, we proudly present our annual water quality report which details the results of water quality testing completed from January to December, 2019. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Included in this report are details about where your water comes from, what it contains, and how our water quality results compare to federal and state standards.

We are pleased to tell you that we had no Safe Drinking Water Act violations in 2019. We are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

We want you to be informed about your drinking water. For more information about this report, or for any questions relating to your drinking water, please call the East Windsor MUA at 609-443-6000.

Public Participation – How Can I Get Involved?

If you have questions or would like to become involved in discussions about your water quality, the East Windsor MUA meets on the 3rd Thursday of each month at the Administration office, on 7 Wiltshire Dr., East Windsor, NJ.

How to Contact Us

The East Windsor MUA welcomes your comments and questions as they relate to the quality of your water. For more information about this report, or for any questions relating to your drinking water, please feel free to call 609-443-6000

This report contains important information about your drinking water. If you do not understand it, please have someone translate it for you.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Where Does Our Water Come From?

The East Windsor MUA Water Department is a public community water system consisting of 7 wells. This system's source water comes from the Potomac-Raritan-Magothy (PRM) aquifer formation.

What's In the Source Water before We Treat It?

In general, the sources of drinking water (both tap 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 can pick up substances resulting from the presence of animals or from human activities.

Substances That May Be Present in Source Water Include:

- Microbiological Contaminants: such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations or wildlife.
- Inorganic Contaminants: such as salts and metals which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or 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 may also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive Contaminants: which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

East Windsor MUA PWSID # 1101002

East Windsor MUA is a public community water system consisting of seven wells. None of the wells are under the influence of surface water. There are no surface water intakes and no ground water sources or surface water sources purchased. The system's source water comes from the following aquifers: middle Potomac-Raritan- Magothy aquifer and the upper Potomac-Raritan-Magothy aquifer. The system does not purchase water from any other water system.

Protecting Your Water Source

What is S.W.A.P.

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

Susceptibility Ratings for East Windsor Municipal Utilities Authority Water Sources

The table below illustrates the susceptibility ratings for the seven-contaminant categories (and radon) for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report. Definitions, Source Water Assessment Reports and Summaries are available for public water systems at www.state.nj.us/dep/swap/ or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.

	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection By-product Precursors		
Sources	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Wells - 7		5	2	5		2		3	4	4		3	1	1	5	5		2		5	2	2	4	1
GUDI - 0																								
Surface water intakes - 0																								

Contaminant Categories

DEP considered all surface water highly susceptible to pathogens; therefore all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and they all received a low rating.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Source water protection is a long-term dedication to clean and safe drinking water. It is more cost effective to prevent contamination than to address contamination after the fact. Every member of the community has an important role in source water protection. NJDEP recommends controlling activities and development around drinking water sources whether it is through land acquisition, conservation easements or hazardous waste collection programs. We will continue to keep you informed of SWAP's progress and developments.

Lead Education Statement

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. East Windsor Municipal Utilities Authority 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.

Wise Water Use Tips

Wise water use is an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. Here are a few suggestions:

Wise water tips you can use inside your home:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

Sources of Information:

- U.S. Environmental Protection Agency Safe Drinking Water Hotline: 1-800-426-4791
- New Jersey Department of Environmental Protection Bureau of Safe Drinking Water: (609) 292-5550

How Do I Read the Table of Detected Contaminants?

Starting with the Contaminant, read across from left to right. A "Yes" under Compliance Achieved means the amount of the substance met government requirements. The column marked MCLG, Maximum Contaminant Level Goal, is 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. The shaded column marked MCL, Maximum Contaminant Level, is 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. The shaded column marked Range Detected shows the highest and lowest test results for the year. The column marked Highest Level Detected shows the highest test results during the year. Typical Source shows where this substance usually originates. Compare the Range Detected values with the MCL column. To be in compliance, the Highest Level Detected must be lower than the MCL standard. Those substances not listed in the table were not found in the treated water supply.

As you can see from the table, our system had no MCL violations again this year. The footnotes and the definitions below will help you interpret the data presented in the Table of Detected Contaminants.

Table Definitions

- Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 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.
- 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.
- MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- MRDL (Maximum Residual Disinfectant Level): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- NA: Not Applicable
- NLE: No Limit Established
- ND: Not Detected
- 90th Percentile Value: Of the samples taken, 90% of the values of the results were below the level indicated in the table.
- ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).
- ppm (parts per million): One part substance per million parts water (or milligrams per liter).
- pCi/L (picoCuries per liter): Measurement of the natural rate of disintegration.
- AL = Action Level
- RUL: Recommended upper limit

Water Quality Statement

The data presented in the Table of Detected Contaminants is the same data collected to comply with U.S. EPA and New Jersey state monitoring and testing requirements. We have learned through our testing that some contaminants have been detected, however, these contaminants were detected well below the levels set by the EPA to protect public health. To assure high quality water, individual water samples are taken each year for chemical, physical and microbiological tests. Tests are done on water taken at the source, from the distribution system after treatment and, for lead and copper monitoring, from the customer's tap. Testing can pinpoint a potential problem so that preventive action may be taken. The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate

the monitoring requirements for asbestos, volatile organic chemicals, and synthetic organic chemicals. Our system received a waiver for synthetic organic chemicals because we are not considered vulnerable to this type of contamination.

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 (1-800-426-4791).

Vulnerable Populations Statement

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune 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 pathogens are available from the Safe Drinking Water Hotline (1-800-426-4791).

Water Quality Results

Primary Regulated Substances

Contaminant	Units	MCL	MCLG	Range Detected	Highest Level Detected	Compliance Achieved	Typical Source
Inorganic Chemicals							
Fluoride (2019)[1]	ppm	4	4	0.46 – 0.79	0.79	Yes	Erosion of natural deposits; Water additive which promotes strong teeth
Nitrate (2019)	ppm	10	10	ND – 0.54	0.54	Yes	Runoff from fertilizer use; Industrial or domestic wastewater discharges; Erosion of natural deposits.
Barium (2017)	ppm	2	2	0.015 – 0.064	0.064	Yes	Discharge of drilling wastes; Discharge from metal refineries: Erosion of natural deposits. Runoff from cropland.
Nickel (2017)	ppm	NLE	NA	0.001 – 0.008	0.008	Yes	Naturally occurring: industrial electroplating, stainless steel and alloy production. Runoff from mining and refining operations.
Disinfectant Treatment By-products Stage-2 (2019)							
Total Trihalomethanes [TTHMs]	ppb	80	NA	ND – 16.0	6.0[2]	Yes	By-product of drinking water disinfection.
Haloacetic Acids (HAA5s)	ppb	60	NA	ND – 5.13	2.0[3]	Yes	By-product of drinking water disinfection.
Disinfectants (2019)							
Chlorine	ppm	MRDL = 4	MRDLG = 4	0.26 – 0.79	0.79	Yes	Water additive used to control microbes.
Radiological Substances (2017)							
Alpha Emitters[4]	pCi/L	15	0	ND – 11.8	11.8	Yes	Erosion of natural deposits.
Combined Radium 226 and 228[5]	pCi/L	5	0	<0.3 – 3.9	3.9	Yes	Erosion of natural deposits.

Contaminant	Units	Action Level	MCLG	Range	Homes Above Action Level	Compliance Achieved?	Typical Source
Copper (2018)	ppm	1.3	1.3	ND –0.053	0	Yes[6]	Corrosion of household plumbing systems
Lead (2018)	ppb	15	0	ND – 3.32	0	Yes[7]	Corrosion of household plumbing systems

Secondary Contaminants - Inorganic

Contaminant	Units	MCL	MCLG	Range Detected	Highest Level Detected	Compliance Achieved	Typical Source
Sodium[8] (2017)	ppm	50	NA	1.90 – 5.22	5.22	Yes	Occurs naturally in the environment
Zinc (2017)	ppm	5	NA	ND – 0.042	0.042	Yes	Erosion from rocks and soils

Unregulated Contaminant Monitoring Rule

East Windsor Municipal Utilities Authority participated in the Unregulated Contaminant Monitoring Rule. Unregulated Contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated Contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water

and whether regulation is warranted. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

Unregulated Contaminants (UCMR4) (2019)

Unregulated Contaminants	Units	MCL	MCLG	Average Level Detected	Range of Value	Typical Source
HAA5	ppb	NLE	NLE	0.754	0.248 - 1.401	Disinfectant biproduct - May be formed when disinfectants used to treat water react with naturally occurring organic and inorganic matter
HAA6Br	ppb	NLE	NLE	1.236	0.326 - 1.946	Disinfectant biproduct - May be formed when disinfectants used to treat water react with naturally occurring organic and inorganic matter
HAA9	ppb	NLE	NLE	1.500	0.574 - 2.477	Disinfectant biproduct - May be formed when disinfectants used to treat water react with naturally occurring organic and inorganic matter
Manganese	ppb	NLE	NLE	3.63	ND - 13.8	Erosion of natural deposits Manganese is a naturally occurring mineral found in rocks, soil and groundwater
Bromide[9]	ppb	NLE	NLE	35.1	ND - 48.8	Erosion of natural deposits

[1] Fluoride is added to the water.
[2] Compliance is based on locational running annual average (LRAA) of the four quarters of 2019. The highest LRAA for TTHMs was 6.0 ppb.
[3] Compliance is based on locational running annual average (LRAA) of the four quarters of 2019. The highest LRAA for HAA5s was 2.0 ppb
[4] Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
[5] Radium 226 and Radium 228 have a combined MCL of 5 pCi/L
[6] The 90th percentile (i.e. 90% of homes tested are less than the value) for copper is 0.018 ppm.
[7] The 90th percentile (i.e. 90% of homes tested are less than the value) for lead is 0.99 ppb.
[8] New Jersey State MCL. For healthy individuals, the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be of concern to individuals on a sodium restricted diet.
[9]Bromide was analyzed in raw source water samples taken prior to treatment. These samples are not representative of the water quality delivered to customers.

Note: The State of New Jersey allows us to monitor for certain contaminants less than once a year because the concentrations are not expected to vary significantly from year to year. Some of the data, though representative, are more than one year old.