

Borough of Madison
 Hartley Dodge Memorial
 50 Kings Road
 Madison, New Jersey 07940

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Local
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Este informe contiene informacion muy importante sobre el agua que usted bebe. Visite www.rosenet.org para obtener mas informacion.

MADISON WATER DEPT.

The Madison Water Department is a public community water system consisting of 5 wells, 0 wells under the influence of surface water and 0 surface water intake(s).

Also, 4 purchased surface and ground water sources, 2 ground water sources and 2 surface/ground water mix. This system's source water comes from the following aquifer(s) and/or surface water body(s): Buried Valley water aquifer system.

This system may purchase water from the following water system(s): Florham Park Water Department, Southeast Morris County MUA, Chatham Water Department, NJ American Water Company.

SOURCE WATER ASSESSMENT REPORT & SUMMARY

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at <http://www.nj.gov/dep/watersupply/swap/index.html>, or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550 or watersupply@dep.nj.gov.

You may also contact your public water system at 973-593-3092.



MADISON'S NOTIFICATION SYSTEM

Alert Madison

Sign up for Madison's emergency alert system, AlertMadison, by visiting alertmadison.org

AlertMadison includes the lifesaving Smart911 technology.

QUESTIONS?

If you have any questions about this report or concerning your water utility, please contact Tom DeBiasse at 973-593-3092. If you want to learn more, please attend any of our regularly scheduled Borough Council meetings at Hartley Dodge. The meeting schedule is posted online at www.rosenet.org



Mayor:
 Robert H. Conley

Borough Council:
 Carmela Vitale
 Astri J. Baillie
 Maureen Byrne
 John J. Hoover
 Debra J. Coen
 Rachel Ehrlich

MADISON

NEW JERSEY

PWSID
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2020 WATER QUALITY REPORT

OUR MISSION CONTINUES

We are pleased to present you with this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day.

Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

WHAT'S THE SOURCE OF MADISON'S DRINKING WATER?

Our water source is wells. Our 5 wells draw groundwater from a Buried Valley Aquifer System. The capacity of the wells ranges from 1.1 million gallons per day (MGD) to 1.9 MGD. The wells discharge into a system of underground piping and two elevated water tanks. The Madison Avenue tank holds 500,000 gallons and the Midwood Terrace tank holds 750,000 gallons.

EPA REGULATIONS

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.



SUBSTANCES THAT COULD BE IN WATER

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The 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 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 storm water 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 storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

CONCERNS ABOUT LEAD

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 Borough of Madison is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. The Borough tests for lead on a regular basis and has confirmed that Madison does not have elevated lead readings in its public water supply. 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 is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>

THE SAFE DRINKING WATER ACT

We constantly monitor the water supply for various contaminants. The Safe Drinking Water Act regulations allow for waivers and reduced monitoring on certain volatile organic chemicals, synthetic organic chemicals and lead and copper.

We at the Borough of Madison work hard to provide top quality water to every tap. We ask that all our customers help us to protect our water resources, which are the heart of our community, our way of life and our children’s future.

The Madison Water System has been granted waivers for both Asbestos and SOCs by the State based on a determination of unlikely vulnerability to such contaminants.

Definitions

Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Nutrients: Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

Pesticides: Man-made chemicals used to control pests, weeds, and fungus. Common sources include land application, and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

Inorganics: Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrate.

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to <http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394

Disinfection Byproduct Precursors: A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example, leaves) present in surface water.

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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 or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

TEST RESULTS (TABLE A)

The following table 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.

The seven contaminant categories are defined following the table. 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.

TEST RESULTS (TABLE B)

The Madison Borough Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1 to December 31, 2019. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, is more than one year old.

Radioactive Contaminants: can be naturally occurring or may be the result of oil and gas production and mining activities.

Inorganic Contaminants: such as salts and metals which can be naturally occurring or may result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers, and gasoline components.

Unregulated Contaminants: are those for which the EPA has not established drinking water standards.

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

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

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 (800-426-4791).

The Madison treatment facility removed Volatile Organic Compounds. Volatile results are pre-treatment; no chemicals have been added.																								
	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproduct 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- 5		2	3	5					5	4			1	2	3		3	2	5			2		3
GUDI - 0																								
Surface Water Intakes - 0																								

CONTAMINANT	VIOLATION (Yes/No)	LEVEL DETECTED	UNITS OF MEAS.	MCLG	MCL	LIKELY SOURCE OF CONTAMINANT
Coliform Test Results Yr. 2019	Y - 1 out of 15 samples tested positive in August 2018	P - Repeat samples were taken per Coliform Reule and no other positive samples were found		0		Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Radioactive Contaminants						
Gross Alpha Test results Yr. 2017 Treatment A + B	No	<3	pCi/L	0	15	Erosion of Natural Deposits
Well C	No	<3	pCi/L	0	15	
Well D	No	<3	pCi/L	0	15	
Well E	No	<3	pCi/L	0	15	

Combined Radium-226 & 228 Test results Yr. 2017 Treatment A + B	No	<1	pCi/L	0	5	Erosion of Natural Deposits
Well C	No	<1	pCi/L	0	5	
Well D	No	1.5	pCi/L	0	5	
Well E	No	Range <1 - 1.5 Highest level detected 1.5	pCi/L	0	5	

Inorganic Contaminants						
Arsenic Test Results Yr. 2017	No	Range = 1.07 - 1.35 Highest level detected = 1.35	ppb	n/a	5	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Iron Test Results Yr. 2019	No	< 0.1	ppm	0.05	0.3	Natural Deposits
Manganese Test Results Yr. 2019	No	<0.0005	ppm	0.01	0.05	Erosion of Natural Deposits
Barium Test Results Yr. 2017	No	Range = 0.019 – 0.047 Highest level detected = 0.047	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride Test Results Yr. 2017	No	Range < 0.05 - .05	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Copper Test Results Yr. 2018 Results at 90 th Percentile	No	0.11 No samples exceeded the action level	ppm	1.3	AL = 1.3	Corrosion of household plumbing systems
Lead Test Results Yr. 2018 Results at 90 th Percentile	No	3.97 No samples exceeded the action level	ppb	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as nitrogen) Test Results Yr. 2019	No	Range = 1.61 - 2.03 Highest level detected = 2.03	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion or natural deposits

Disinfection Byproducts						
CONTAMINANT	VIOLATION (Yes/No)	LEVEL DETECTED	UNITS OF MEAS.	MRDLG	MRDL	LIKELY SOURCE OF CONTAMINANT
TTHM (total trihalomethanes) Test Results Yr. 2019	No	Range ND - 12.37 Highest Locational Running Annual Average = 8.0	ppb	N/A	80	By-product of drinking water disinfection
HAA5 (haloacetic acids) Test Results Yr. 2019	No	Range ND – 2.99 Highest Locational Running Annual Abverage = 2.0	ppb	N/A	60	By-product of drinking water disinfection

Regulated Disinfectants						
Chlorine Test Results Yr. 2019	No	Range 0.2 - 0.7 Highest Annual Average = 0.3	ppm	4	4	Water additive used to control microbes

The Borough of Madison participated in monitoring for unregulated contaminants with the Unregulated Contaminant Monitoring Rule (UCMR). 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 future regulation is warranted. Below is a table of contaminants detected.

Unregulated contaminants UCMR 4 Test Results Yr. 2018			
CONTAMINANT	RANGE DETECTED	UNIT OF MEASUREMENT	MAJOR SOURCE IN DRINKING WATER
Bromide	57.7 – 116.0	ppb	By-product of drinking water disinfection
Bromochloroacetic Acid	ND - .436	ppb	By-product of drinking water disinfection
Dibromoacetic Acid	0.4 - 1.94	ppb	By-product of drinking water disinfection
Dibromoacetic Acid	ND - 0.3	ppb	By-product of drinking water disinfection
Manganese – Entry Point	ND - 6.1	ppb	Erosion of Natural Deposits
Total Organic Carbon - Pre-Treatment	ND - 1300	ppb	Naturally present in the environment