Dayton Veterans Affairs Medical Center (Dayton VAMC) Drinking Water Consumer Confidence Report For 2022

In 2022 we had an unconditional license to operate our water system

1. Introduction

The Dayton VAMC has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

2. Source Water Information

The Dayton VAMC receives treated drinking water from the City of Dayton and then treats it with chlorine dioxide at the entry points to buildings 320, 330, and 410 to provide additional microbial protection. The Source of Dayton's drinking water is the Miami Valley Buried Aquifer. This aquifer is a large underground area of water-bearing sand and gravel deposits. The water provided to the Dayton VAMC by the City of Dayton in 2022 met all the drinking water standards of the US Environmental Protection Agency (US EPA) and Ohio Environmental Protection Agency (OEPA).

Source Water Assessment - The Ohio EPA conducted an assessment of Dayton's water source. The assessment concluded that the aquifer supplying water to the City of Dayton's well fields have a high susceptibility to contamination. This determination is based on the influence of surface water recharge to the aquifer; the presence of a relatively thin protective layer of clay overlying the aquifer; the shallow depth of the aquifer; contaminant plumes in Dayton's well field protection area; the presence of significant potential contaminant sources in the protection area; and the presence of contaminants in treated water. More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling the Division of Environmental Management at 937-333-3725.

3. What are sources of contamination to drinking water?

Groundwater is influenced by surface water. 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 water include:

- a. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- b. 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, or farming.
- c. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- d. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- e. 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, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

4. Who needs to take special precautions?

Health Information

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. Environmental Protection Agency/Center for Disease Control and Prevention (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 at 1-800-426-4791.

Lead Information

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. Dayton VAMC 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 at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

5. About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The Dayton VAMC conducted sampling for disinfectants, disinfection by-products, and lead and copper during 2022. Samples were collected for a total of eleven different contaminants; none of which violated the drinking water standards.

Groundwater Protection

In 1985 the City of Dayton Water Department developed a Well Field Protection Program to counter threats to groundwater quality. This program includes land use control zoning, treatment of contaminated groundwater, early warning monitoring wells, and emergency preparedness. Dayton's Well Field Protection Program won an award from the American Water Works Association and was the first program approved by the OEPA. The Groundwater Foundation has also designated Dayton as a Groundwater Guardian community. Dayton encourages environmentally friendly, economic development projects in its groundwater protection areas.

For More Information

City of Dayton citizens can participate in decisions about water quality by attending City Commission meetings and Environmental Advisory Board meetings. Call the Water Department Administration Office at 333-3734 for meeting dates and times. For more information on water quality: City of Dayton Water Dept., 3210 Chuck Wagner Lane, Dayton, Ohio 45414 or call 937-333-6093.

Dayton VAMC community members: For more information on your water quality contact:

Chuck Terry
Chief, Maintenance and Operations
Dayton VA Medical Center
4100 W Third Street
Dayton OH 45342
937-268-6511 Ext: 2809

Megan Shade Environmental Engineer Dayton VA Medical Center 4100 W Third Street Dayton OH 45342 937-268-6511 Ext: 3726

City of Dayton Department of Water 2022 Water Quality Report We are proud to report that the City of Dayton complied with all MCL* standards for drinking water during 2022.

2022 Repor				Miami Plan				Ottawa Pla			Typical Source of
Substance (Unit)	Maximum Allowed (MCL*)	Ideal Goals (MCLG)	Highest Level Detected	Range of Detection		Year Sampled		Range of Detection		Year Sampled	Contaminants
			Reg	ulated at the	e Trea	tmen	t Plant				
Fluoride (ppm)	4	4	1.07	0.81 -1.0	No	2022	1.01	0.80 – 0.99	No	2022	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	0.93	0.12 - 0.93	No	2022	1.48	0.65 – 1.48	No	2022	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Turbidity (NTU)	TT = 1	N/A	0.12	0.01 - 0.12	No	2022	0.08	0.01 - 0.08	No	2022	Lime softening residuals; Soil
	TT: > 95% n	nust be < 0.3	100% < 0.31				100% < 0.31				runoff.
Total Organic Carbon (TOC) (ppm)	TT	N/A	0.622	0.36 – 0.73	No	2022	0.562	0.46 - 0.85	No	2022	Naturally present in the environment.
Cis-1,2-Dichloroethylene (ppm)	70	70	0.78	N/A	No	2022	ND	ND	No	2022	Discharge from industrial chemical factories
Barium (ppm)	2	2	0.056	N/A	No	2022	0.045	N/A	No	2022	Discharge from metal refineries; Erosion of natural deposits.
			Reg	ulated at th	e Cus	tomei	r's Tap				
	Maximum Allowed (MCL*)	Ideal Goals (MCLG)	Highest Level Detected	Range of Detection	Viola	tion	Year Sampled				Typical Source of Contaminants
Lead (ppb)	AL = 15	0	4.1	No samples > AL ND - 8.7	No)		2020			Corrosion of household plumbing materials; Erosion of natural
Copper (ppm)	AL = 1.3	1.3	0.047	No samples > AL ND -0.59				2020			deposits.
90% of samples were less	than 4.1 ppb for	lead and less	than 0.047 ppi	m for copper. Lead ar	nd copper v	vere not d	letected in mos	t of the water sampl	es. Results	from samp	oles collected in 2020.
			Regu	lated in the	Distri	butio	n Systen	n			
Substance (Unit)	Maximum Allowed (MCL*)	Ideal Goals (MCLG)	Highest Level Detected	Range of Detection	Viola	ition		Year Sample	d		Typical Source of Contaminants
Trihalomethanes (THMs) (ppb)	803	N/A	26.35 ³	13.3 – 35.2	N	o		2022			By-product of drinking water chlorination.
Haloacetic Acids (HAA5s) (ppb)	60³	N/A	8.333	ND – 10.9	N	o		2022			By-product of drinking water chlorination.
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.274	1.16 – 1.35	N	0		2022			Water additive used to control microhes

	Unregu	lated Co	ompounds -	- (averag	e and ra	ange a	re shown f	for water	plant ef	ffluent sa	mples)
2022 Report	t		Miami Plant					Ottawa	Plant		Typical Source of Contaminants
Substance (Unit)	Maximum Allowed (MCL*)	Ideal Goals (MCLG)	Highest Level Detected	Range of Detection	Violation	Year Sampled	Highest Level Detected	Range of Detection	Violation	Year Sampled	
Bromodichloromethane (ppb)	N/A	N/A	2.07	N/A	N/A	2022	1.31	N/A	N/A	2022	By-products of drinking water chlorination.
Bromoform (ppb)	N/A	N/A	0.95	N/A	N/A	2022	0.68	N/A	N/A	2022	
Chloroform (ppb)	N/A	N/A	1.44	N/A	N/A	2022	1.04	N/A	N/A	2022	
Dibromochloromethane (ppb)	N/A	N/A	2.36	N/A	N/A	2022	1.47	N/A	N/A	2022	
Perfluorooctanoic Acid (ppt) PFOA	N/A	N/A	ND ⁶	ND	N/A	2022	ND ⁶	ND	N/A	2022	Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals applied to many industrial, commercial and consumer products to make them
Perfluorooctanesulfonic Acid (ppt) PFOS	N/A	N/A	ND ⁶	ND	N/A	2022	8.926	5.4 – 13.1	N/A	2022	waterproof, stain resistant or nonstick. PFAS are also used in products like cosmetics, fast food packaging, and a type of firefighting foam called aqueous film forming foam (AFFF) which are used
Perfluorohexanesulfonic Acid (ppt) PFHxS	N/A	N/A	ND ⁶	ND	N/A	2022	10.36	6.5 -14.2	N/A	2022	mainly on large spills of flammable liquids, such as jet fuel. PFAS are classified as contaminants of emerging concern, meaning that research into the harm they may cause to human health is still ongoing.

- Dayton complied with requirements for every month in 2022. Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported above, the City of Dayton's highest recorded turbidity result for 2022 at Miami Plant was 0.12 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%, and highest at Ottawa Treatment Plant was 0.08 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.
- 2 Dayton complied with alternate compliance criteria for TOC regulations under the D/DBP Rule. The level reported is "average".
- 3 Highest running annual average.
- 4 Highest running quarterly average.
- 5 In 2022 there were 1 distribution samples were positive for coliform bacteria. There were 1,500 samples analyzed.
- 6 Level Reported is "average". Health Action Levels for PFAS. PFOA: 0.004 ppt, PFOS: 0.02 ppt, PFHxS: 140 ppt., GenX: 10 ppt, PFBS: 200

Definitions

*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.

NTU = Nephelometric Turbidity Units (measure of "cloudiness")

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 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 contaminants.

TT = Treatment Technique - A required process intended to reduce the level of a contaminant in drinking

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

picocuries per liter (pCi/L) are units of measure of radioactivity

N/A = Not applicable > greater than < less than ND = Not detected

Parts per Million (ppm) are units of measure for concentration of a contaminant. A part per million corresponds to one second in 11.5 days.

Parts per Billion (ppb) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Dayton VAMC 2022 Water Quality Report Building 330

Disinfectants and Disinfection By-Products

Substance (Unit)	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical Source of Contaminants
Chlorite (ppm)	0.8	1.0	0.65	0.02 – 0.65	N	2022	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	No Goal	60	9.1	_	N	2022	By-product of drinking water disinfection.
Total Trihalomethanes (TTHMs) (ppb)	No Goal	80	36	_	N	2022	By-product of drinking water disinfection.
Chlorine Dioxide (ppm)	Allowable detec 0.04 -	ction	0.71	0.11 – 0.71	N	2022	Water additive used to control microbes

Lead and Copper

Substance (Unit)	Action Level	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical source of Contaminants
Copper (ppm)	1.3	0.09	0.036 - 0.09	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	1.9	Nd – 1.9	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits

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Action Level = The concentration of a contaminant which, if exceeded, triggers treatment or other requirements for a water system.

ND = Not detected

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Dayton VAMC 2022 Water Quality Report Building 320 A Pod

Disinfectants and Disinfection By-Products

Substance (Unit)	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical Source of Contaminants
Chlorite (ppm)	0.8	1.0	0.75	0.02 – 0.75	N	2022	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	No Goal	60	5	_	N	2022	By-product of drinking water disinfection.
Total Trihalomethanes (TTHMs) (ppb)	No Goal	80	33	_	N	2022	By-product of drinking water disinfection.
Chlorine Dioxide (ppm)	Allowable detec 0.04 -	ction	0.77	0.06 – 0.77	N	2022	Water additive used to control microbes

Lead and Copper

Substance (Unit)	Action Level	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical source of Contaminants
Copper (ppm)	1.3	0.29	0.035 - 0.29	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	9.2	ND – 9.2	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits

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Dayton VAMC 2022 Water Quality Report Building 320 B Pod

Disinfectants and Disinfection By-Products

Substance (Unit)	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical Source of Contaminants
Chlorite (ppm)	0.8	1.0	0.38	0.02 – 0.38	N	2022	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	No Goal	60	5.3	_	N	2022	By-product of drinking water disinfection.
Total Trihalomethanes (TTHMs) (ppb)	No Goal	80	34	_	N	2022	By-product of drinking water disinfection.
Chlorine Dioxide (ppm)	Allowable detec 0.04 -	ction	0.72	0.08 – 0.72	N	2022	Water additive used to control microbes

Lead and Copper

Substance (Unit)	Action Level	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical source of Contaminants
Copper (ppm)	1.3	0.12	0.033 – 0.12	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	2.06	ND – 2.06	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits

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Dayton VAMC 2022 Water Quality Report Building 320 C Pod

Disinfectants and Disinfection By-Products

Substance (Unit)	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical Source of Contaminants
Chlorite (ppm)	0.8	1.0	0.79	0.02 – 0.79	N	2022	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	No Goal	60	1	_	N	2022	By-product of drinking water disinfection.
Total Trihalomethanes (TTHMs) (ppb)	No Goal	80	39	_	N	2022	By-product of drinking water disinfection.
Chlorine Dioxide (ppm)	Allowable detec 0.04 -		0.68	0.10 – 0.68	N	2022	Water additive used to control microbes

Lead and Copper

Substance (Unit)	Action Level	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical source of Contaminants
Copper (ppm)	1.3	0.53	0.01 – 0.53	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	1.1	ND – 1.1	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits

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Dayton VAMC 2022 Water Quality Report Building 320 D Pod

Disinfectants and Disinfection By-Products

Substance (Unit)	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical Source of Contaminants
Chlorite (ppm)	0.8	1.0	0.63	0.02 - 0.63	N	2022	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	No Goal	60	5.9	_	N	2022	By-product of drinking water disinfection.
Total Trihalomethanes (TTHMs) (ppb)	No Goal	80	39	_	N	2022	By-product of drinking water disinfection.
Chlorine Dioxide (ppm)	Allowable detec 0.04 -	ction	0.73	0.08 – 0.73	N	2022	Water additive used to control microbes

Lead and Copper

Substance (Unit)	Action Level	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical source of Contaminants
Copper (ppm)	1.3	0.14	0.06 - 0.14	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	ND	ND	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits

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Dayton VAMC 2022 Water Quality Report Building 410

Disinfectants and Disinfection By-Products

Substance (Unit)	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical Source of Contaminants
Chlorite (ppm)	0.8	1.0	0.053	0.02 – 0.053	N	2022	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	No Goal	60	6.6	_	N	2022	By-product of drinking water disinfection.
Total Trihalomethanes (TTHMs) (ppb)	No Goal	80	22	_	N	2022	By-product of drinking water disinfection.
Chlorine Dioxide (ppm)	Allowable detec 0.04 -	ction	0.79	0.07 – 0.76	N	2022	Water additive used to control microbes

Lead and Copper

Substance (Unit)	Action Level	Highest Level Detected	Range of Detection	Violation	Year Sampled	Typical source of Contaminants
Copper (ppm)	1.3	0.10	0.017 – 0.10	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	1.9	ND – 1.9	N	2022	Corrosion of household plumbing systems; Erosion of natural deposits

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