2024
Annual Drinking Water Quality Report
Waldorf Community – MD0080049
Charles County, Maryland
Prepared by the Department of Public Works
Utilities Division

We are pleased to present the Annual Drinking Water Quality Report for the Waldorf Community for the period of January 1, 2024, through December 31, 2024. This report informs you about the quality of the water and services we deliver to you every day. This report is provided in compliance with Federal regulations and is updated annually.

Our constant goal is to provide you with a safe and dependable supply of drinking water. We are committed to protecting water resources, improving the water treatment process, and ensuring the quality of your water meets or exceeds all local, State, and Federal standards and regulations. We are confident the drinking water from the Waldorf system is safe and meets all requirements. A source water assessment was performed by MDE and is available on their website, mde.maryland.gov.

Usted puede obterner esta información en español, llamando al Departamento de Obras Públicas División de Utilidades en 301-609-7400.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade, such as microbes, inorganic or organic chemicals, and radioactive substances. 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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

The sources of drinking water for the Waldorf system are the Patapsco and Magothy aquifers and the Washington Suburban Sanitary Commission's surface water plant. An aquifer is an underground reservoir or deposit of water that is tapped by drilling wells and pumping the water to the surface for distribution. The earth between the surface and the underground aquifer helps to purify the water, making it easier to treat the water supply before it is pumped into the water distribution system. Charles County also purchases water from the Washington Suburban Sanitary Commission (WSSC) which is blended with the existing Waldorf groundwater wells. The sources of water used by WSSC for its water treatment plants are the Patuxent and Potomac Rivers. The Waldorf system is served by 18 wells, plus water from WSSC Utility connection.

Waldorf water system		
Water source name.	**Ground water**	
0150005 WSSC - SAW MILL PLACE	Surface water	
BENSVILLE WELL 1 CH940724	Ground water	
BENSVILLE WELL 2 CH940037	Ground water	
BILLINGSLEY (P WELL) CH880341	Ground water	
BILLINGSLEY 2 (M WELL) CH042573	Ground water	
BROOKWOOD-GENEVIEVE WELL CH941043	Ground water	
CLEVELAND PARK 2 (P WELL) CH940464	Ground water	
CLEVELAND PARK WELL 2 CH140368	Ground water	
JOHN HANSON CH731750	Ground water	
MATTAWOMAN- BEANTOWN CH042572	Ground water	
PINEFIELD CH732423	Ground water	
PINEY CHURCH CH732889	Ground water	
SMALLWOOD WEST CH811194	Ground water	
ST CHARLES TOWER MAGOTHY WELL CH190352	Ground water	
ST. CHARLES CH700087	Ground water	
TOWNE PLAZA CH810135	Ground water	
WESTWOOD DRIVE 2 (P WELL) CH943965	Ground water	
WESTWOOD DRIVE1 (M WELL) CH812310	Ground water	
WHITE OAK CH811195	Ground water	

Some people may be more vulnerable to contaminants in drinking water than the general population. The elderly, infants, and immunocompromised persons, such as persons with cancer who are undergoing chemotherapy, persons who have undergone organ transplants, people with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) or other immune system disorders, can be at a higher risk of infection from contaminants. These people should seek advice about drinking water from their healthcare providers. The Environmental Protection Agency/Center for Disease Control (EPA/CDC) guidelines to reduce the risk of infection are available from the Safe Drinking Water Hotline at 1-800-426-4791.

The Department of Public Works, Utilities Division, routinely monitors the Waldorf system for contaminants in your drinking water according to Federal and State laws. The following table shows the results of our monitoring efforts and identifies the year a contaminant was tested. The results of testing for contaminants which are not regulated are listed in the Unregulated Contaminants section. Definitions of key terms are presented below the table.

Waldorf System

Test Results						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Major Source in Drinking Water
Disinfectants						
Chlorine (**2024)**	N	0 – 3.3	Ppm	MRDLG 4	MRDL 4	Water additives to control microbes
Highest Detected Chlorine (2024)	N	3.3	Ppm	4	4	Water additives to control microbes
Disinfectant By – Product						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Major Source in Drinking Water
HAA5s (Total Haloacetic Acids) (2024) Range – all sources Highest LRAA	N	0 – 60.5 36.1	Ppb	No goal for the total	60	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes) (2024) Range – all sources Highest LRAA	N	1.1 – 98.3 59.4	Ppb	No goal for the total	80	By-product of drinking water chlorination
Inorganic Contaminants						
Barium (2024) Range – all sources	N	0.33 - 0.369	Ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chloethane (2024)	N	1.01 – 1.14	ug/L	3	5	Originates from industrial releases.
Fluoride (2024) Range – all sources	N	0.24 – 0.3	Ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Fluoride (2024) Highest sample	N	0.3	Ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (2023)	N	0 – 3.5	Ppb	2	2	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.

Radioactive Contaminants						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Major Source in Drinking Water
Beta/proton emitters Range – all sources (2024**)**	N	0.0 – 14.3	pCi/L	0	50	Decay of natural and man-made deposits
Combined Radium (226 & 228) Range – all sources (2024)	N	0.6 – 2.9	pCi/L	0	5	Erosion of natural deposits
Radium-226 (2024)	N	0.6-1.2	pCi/L	0	5	Erosion of natural deposits

Radium-228 (2024)	N	0-1.7	pCi/L	0	5	Erosion of natural deposits
Gross Alpha excluding radon and uranium (2024)	N	0.0 – 10.5	pCi/L	0	15	Erosion of natural deposits

Unregulated Contaminant Monitoring Rule results (UCMR5), done in 2024, 2025, PFAS results

Contaminant	Violation Y/N	Range of Level Detected/ Average	Unit Measurement	MCLG	MCL	Use or Environmental Source
PFBS Range Average	N	ND to 3.1 0.07	ng/L	N/A	N/A	PFAS is per-and polyfluoroalkyl substances, originates from Industrial processes, firefighting foam and man-made products
PFHxA Range Average	N	ND to 5.1 0.19	ng/L	N/A	N/A	PFAS is per-and polyfluoroalkyl substances, originates from Industrial processes, firefighting foam and man-made products
PFPeA Range Average	N	ND to 6.0 0.32	ng/L	N/A	N/A	PFAS is per-and polyfluoroalkyl substances, originates from Industrial processes, firefighting foam and man-made products

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive, percent, %	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E.Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	5% of monthly samples are positive	1.1% in October 2024	0	0	N	Naturally present in the environment

Lead and Copper data

Lead and Copper	Date Sampled	Action Level (AL)	90th Percentile	# sites Over AL	Units	Range of Tap sampling
Lead Distribution (2023)	2023	0.015	<0.002	0	ppm	ND – 0.003
Copper Distribution (2023)	2023	1.3	0.234	0	ppm	0.008 – 0.286

Our water system tested a minimum of 90 sample(s) per month in accordance with the Total Coliform Rule for microbiological contaminants. With the microbiological samples collected, the water system collects disinfectant residuals to ensure control of microbial growth.

Disinfectant	Date	Highest RAA	Unit	Range	MRDL	MRDLG	Typical Source
CHLORINE	2024	1.1	ppm	0 – 3.3	4	4	Water additive used to control microbes

Charles County purchases some water from WSSC, Washington Suburban Sanitary Commision, (approximately 3 % on a yearly basis), therefore we are required to provide a link to WSSC's CCR:

https://www.wsscwater.com/sites/default/files/2025-03/WQR%202024.pdf

Below is Chart with results from WSSC water testing:

Regulated Contaminants	Collection Date	Water System	Highest Sample Result	Range of Sampled Result(s) (low - high)	Unit	MCL	MCLG	Typical Source
BARIUM	7/31/2024	WSSC	0.0405	0.0213 - 0.0405	Ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
DIBROMOCHLOROMETHANE	6/30/2024	WSSC	0.00392	0.00051 - 0.00392	MG/L	0.1	0.06	By-product of drinking water chlorination
FLUORIDE	7/31/2024	WSSC	0.793	0.41 - 0.793	Ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NICKEL	9/2/2024	WSSC	0.0032	0 - 0.0032	MG/L	0.1	0.1	
NITRATE	2/5/2024	WSSC	1.85	0.223 - 1.85	Ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	2/5/2024	WSSC	1.85	0.223 - 1.85	Ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Results from WSSC water testing (Disinfection Byproducts)

Disinfection Byproducts	Monitoring Period	Water System	Highest LRAA	Range of Sampled Result(s) (low - high)	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2023 - 2024	**WSSC**	46	23.57 - 78.27	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 - 2024	**WSSC**	43	21.62 - 67.39	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 - 2024	**WSSC**	46	26.18 - 86.34	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 - 2024	**WSSC**	48	26.62 - 66.38	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	42	26.31 - 64.27	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	46	23.36 - 92.83	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	46	23.61 - 94.91	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	44	28.47 - 66.47	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	44	26.68 - 64.78	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	45	22.9 - 89.25	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	42	22.87 - 87.52	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	43	12.01 - 62.68	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	43	27.44 - 66.65	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	44	25.87 - 64.97	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	39	17.56 - 84.85	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	2023 – 2024	**WSSC**	45	15.8 - 64.48	ppb	60	0	By-product of drinking water disinfection
TTHM	2023 – 2024	**WSSC**	56	24.74 - 96.41	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 – 2024	**WSSC**	65	33.01 - 106.02	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 – 2024	**WSSC**	57	28.84 - 94.8	ppb	80	0	By-product of drinking water chlorination

TTHM	2023 – 2024	**WSSC**	62	31.67 - 105.89	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 – 2024	**WSSC**	63	31.05 - 109.51	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 – 2024	**WSSC**	59	27.92 - 100.25	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 – 2024	**WSSC**	53	24.67 - 106.45	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 – 2024	**WSSC**	65	25.86 - 111.53	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 – 2024	**WSSC**	61	29.8 - 102.55	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 – 2024	**WSSC**	55	26.41 - 90.05	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 – 2024	**WSSC**	49	23.06 - 84.69	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 - 2024	**WSSC**	57	31.91 - 84.69	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 - 2024	**WSSC**	65	30.63 - 107.28	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 - 2024	**WSSC**	62	31.44 - 102.24	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 - 2024	**WSSC**	47	19.45 - 97.68	ppb	80	0	By-product of drinking water chlorination
TTHM	2023 - 2024	**WSSC**	65	32.47 - 111.66	ppb	80	0	By-product of drinking water chlorination

Definitions of Key Terms

- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a system must follow.
- 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 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 Residual Disinfectant Level Goal (MRDLG) – 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.
- Maximum Residual Disinfection Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.
- Non-Detects (ND) – The laboratory analysis indicates the contaminant is non-detectable.
- Parts per billion (ppb) or Micrograms per liter (µg/L) – The equivalent of 1 minute in 2,000 years or a single penny in $10,000,000.00

- Parts per million (ppm) or Milligrams per liter (mg/L) – The equivalent of 1 minute in 2 years or a single penny in $10,000.00.
- Picocuries per liter (pCi/L) – A measure of the radioactivity in water. The equivalent of one penny in $10,000,000,000.00 or one penny in ten trillion dollars.
- Part per Trillion (PPT) – The equivalent of one penny on $10,000,000,000.00 or one penny in ten trillion dollars.
- Locational Running Annual Average (LRAA) – average for the results of TTHMs and HAA5s
- TTHM – Trihalomethanes, disinfection by-products.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of experiencing adverse health effects from the contaminant. The presence of some contaminants in drinking water is unavoidable, but we make every effort to keep your drinking water at or below the levels specified by law as being safe for consumption.

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. Charles County Department of Public Works is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or, a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Charles County Utilities at 301-609-7400. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead

An initial inventory of service line pipe materials located within our service area was required to be submitted to the Maryland Department of the Environment (MDE) by October 16, 2024. Our initial inventory was submitted to MDE on 10/15/2024 and is available upon request. Additionally, this report is available at https://www.charlescountymd.gov/slai

If you are concerned about lead in your water and wish to have your water tested, contact Charles County Utilities at 301-609-7400. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead

PFAS – short for per- and polyfluoroalkyl substances – refers to a large group of more than 4,000 human made chemicals that have been used since the 1940s in a range of products, including stain and water-resistant fabrics and carpeting, cleaning products, paints, cookware, food packaging and fire-fighting foams. These uses of PFAS have led to PFAS entering our environment, where they have been measured by several states in soil, surface water, groundwater, and seafood. Some PFAS can last a long time in the environment and in the human body and can accumulate in the food chain.

The Maryland Department of the Environment (MDE) conducted a PFAS monitoring program for Community Water Systems from 2020 to 2022. The results are available on MDE's website: https://mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx.

The Environmental Protection Agency (EPA) proposed regulations for 6 PFAS compounds in drinking water in March 2023. The MCLs for PFOA and PFOS are proposed to be 4.0 parts per trillion (ppt). The proposal for HFPO-DA (GenX), PFBS, PFNA and PFHxS is to use a Hazard Index of 1.0 (unitless) to determine if the combined levels of these PFAS pose a risk and require action.

The 5th Unregulated Contaminant Monitoring Rule (UCMR5) began testing for 29 PFAS compounds and lithium in 2023, and testing will run through 2025. The UCMR5 should test all community water systems with populations of at least 3300 people. Three randomly selected systems in Maryland with populations less than 3300 people will also be tested under the UCMR5. Detections greater than the minimum reporting levels for each constituent should be reported in the CCR.

Some people who drink water containing Haloacetic acids more than the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing trihalomethanes more than the MCL over many years may experience problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer.

Source water assessment has been performed by the Maryland Department of the Environment and Is accessible on their website at:
https://mde.maryland.gov/programs/Water/water_supply/Source_Water_Assessment_Program/Pages/by_county.aspx

The staff of the Department of Public Works, Utilities Division, works diligently to provide top-quality water and excellent customer service. All customers are urged to protect our valuable water resources and practice conservation to ensure a sustainable water supply for our community. If you have any questions concerning this report or any aspect of your water utility, please contact Sam Simanovsky, Regulatory Compliance Officer, at 301-609-7400.

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