ANNUAL WATER QUALITY REPORT

Reporting Year 2021

Presented By

Tuscarawas County
Metropolitan Sewer District

PWS ID#: 7901612, 7902012, 7902103

Introduction

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be continued reliable, high-quality tap water delivered to you and your family.

Where Does My Water Come From?

Customers of our Dundee water system are served by three groundwater wells located near the Dundee Water Treatment Plant. The county purchases water from the Village of Tuscarawas to supply water to the Wainwright water system. The Village of Tuscarawas receives its water from two wells located near Village Park along Cherry Street. Our Wilkshire Hills water system receives its water from two groundwater wells located near the Wilkshire Hills Water Treatment Facility.

The Wilkshire Hills system also has two emergency interconnections with the Village of Bolivar. Neither of these connections were utilized in 2021.

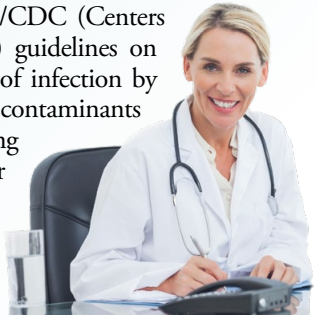
> "When the well is dry, we know the worth of water."
>
> —*Benjamin Franklin*

Community Participation

Public participation and comments are encouraged at regular meetings of the Tuscarawas County Board of Commissioners, which meets weekly on Monday at 9:00 a.m. and Wednesday at 1:00 p.m. in the William Winters Room at 125 East High Avenue, New Philadelphia. If you would like more information regarding these meetings, you may contact Rhonda Jordan at (330) 365-3240.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 (800) 426-4791 or http://water.epa.gov/drink/hotline.



Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call Michael Jones, PE, Director, or Justin Angel, Superintendent, at (330) 874-3262.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 two 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. A list of laboratories certified in the State of Ohio to test for lead may be found at http://www.epa.ohio.gov/ddagw or by calling (614) 644-2752. 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 (800) 426-4791 or at www.epa.gov/safewater/lead.

Source Water Assessment

The state has completed a source water assessment for each of our systems. The purpose of these assessments is to determine the susceptibility of each drinking water source to potential contaminant sources. The report includes background information and a relative susceptibility rating of high, moderate, or low. It is important to understand that a susceptibility rating of high does not imply poor water quality, only the system's potential to become contaminated within the assessment area. The assessment findings are summarized in the table below:

SUSCEPTIBILITY OF SOURCES TO POTENTIAL CONTAMINANT SOURCES		
SOURCE NAME	**SUSCEPTIBILITY RATING**	**SWAP REPORT DATE**
Dundee Groundwater Supply	Low	2017
Wilkshire Hills	High	2002
Village of Tuscarawas (Wholesaler) Groundwater Supply	High	2002

If you would like a copy of the assessment for any of these sources, please feel free to contact our office during regular business hours at the number provided in this report.

WATER TREATMENT PROCESS	
WATER SYSTEM	**TREATMENT**
Dundee	Filtration, Disinfection
Village of Tuscarawas (Wholesaler)	Disinfection, Phosphate Addition
Wilkshire Hills	Fluoridation, Phosphate Addition

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

> For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Note that we have a current, unconditioned license to operate our water system.

REGULATED SUBSTANCES

				Dundee		Wainwright		Wilkshire Hills		Tuscarawas (Wholesaler)			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2019	15	0	NA	NA	NA	NA	0.102[1]	NA	NA	NA	No	Erosion of natural deposits
Barium (ppm)	2019	2	2	0.081	NA	NA	NA	0.11	NA	NA	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2021	[4]	[4]	0.93	0.42–1.49	0.80	0.47–1	0.94	0.85–1.11	NA	NA	No	Water additive used to control microbes
Combined Radium (pCi/L)	2019	5	0	NA	NA	NA	NA	0.505[2]	NA	NA	NA	No	Erosion of natural deposits
Fluoride (ppm)	2021	4	4	NA	NA	NA	NA	1.19	0.35–1.35	NA	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2021	60	NA	9.03	NA	4.11	NA	1.84	ND–1.84	NA	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2021	10	10	0.158	NA	NA	NA	3.63	NA	0.40	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2019	50	50	1.47	NA	NA	NA	4.55	NA	NA	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2021	80	NA	30.1	NA	14.7	NA	16.4	14.4–16.4	NA	NA	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

				Dundee			Wainwright			Wilkshire Hills				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2020	1.3	1.3	0.46	0.016–0.853	0/5	0.29[3]	0.06–0.29[3]	0/5[3]	1.21[4]	0.02–1.37[4]	1/20[4]	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2020	15	0	0.65	ND–1.29	0/5	ND[3]	NA	0/5[3]	4.34[4]	ND–9.02[4]	0/20[4]	No	Lead service lines; Corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits

UNREGULATED SUBSTANCES

		Dundee		Wainwright		Wilkshire Hills		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromoform (ppb)	2019	0.66	NA	NA	NA	NA	NA	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2019	0.76	NA	NA	NA	0.65	NA	By-product of drinking water disinfection
Nickel (ppb)	2019	2.24	NA	NA	NA	3.16	NA	Naturally occurring

[1] Sampled for gross alpha particles.
[2] Sampled for radium 228.
[3] Sampled in 2019.
[4] Sampled in 2021.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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 contaminants.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

pCi/L (picocuries per liter): A measure of radioactivity.

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).