



CITY OF OAKWOOD

Drinking Water Consumer Confidence Report

For Calendar Year 2022



May 08, 2023

Introduction

The city of Oakwood prepared this report to provide information to you, the consumer, on the quality of our drinking water. This report includes general health information relating to drinking water; a description of the Oakwood water system; general information about water quality; Oakwood water quality test results; information on how to participate in decisions concerning your drinking water; and water system contacts.

The city of Oakwood owns and operates a public municipal water system that serves the residents and businesses throughout the community. The system is comprised of eight production wells, three water treatment plants, 44 miles of underground water lines, 352 fire hydrants and a 1.5 million gallon water tower. The Director of Engineering and Public Works oversees the operation of the public water system. The Water Plant Superintendent is charged with the day-to-day operation of the wells, water tower and water treatment plants.



Springhouse Water Treatment Plant



Shafor Water Treatment Plant



Softening Units at Shafor Water Treatment Plant

Source water information

Oakwood receives its drinking water from groundwater pumped through eight production wells. These wells draw water from tributary aquifers flowing towards the Great Miami Buried Valley Aquifer. The city's system produced 99.97% of the total city water demand in 2022. Had additional water been needed, it would have been supplied from the city of Dayton water system.

Oakwood has two reserve water connections with the city of Dayton and one with Montgomery County. During 2022, Oakwood produced 444.636 million gallons from the eight Oakwood water wells. We purchased 134,000 gallons of water from the city of Dayton. This report does not contain information on the city of Dayton water quality but a copy of the Dayton Consumer Confidence Report can be obtained by contacting the city of Dayton, Division of Environmental Management, at (937) 333-6093 or by viewing the Dayton website at www.daytonohio.gov/documentcenter/view/13502/2022-Water-Quality-Report

The aquifer that supplies drinking water to Oakwood has a moderate susceptibility to contamination, due to the sensitivity of the aquifer in which the drinking water wells are located and the existence of several potential contaminant sources within the protection zone. This does not mean that the wellfield will become contaminated, only that conditions are such that the groundwater could be impacted by potential contaminant sources. Possible contamination may be avoided by implementing protective measures. For this reason, Oakwood has an Ohio EPA endorsed Source Water Assessment and Protection Program. See page 6 of this report for information on how you can help protect our water supply. More detailed well field protection information can be obtained by calling the Water Plant Superintendent at (937) 298-0777.

City of Dayton Source Water Assessment

The Ohio EPA conducted a source water assessment of Dayton's water source. The assessment concluded that the aquifer supplying water to the city of Dayton's well fields has 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 city of Dayton Division of Environmental Management at (937) 333-3725.

What are sources of contamination to drinking 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and (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, the United States Environmental Protection Agency (USEPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The 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 Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791.)

Who needs to take special precautions?

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 immune system disorders, some elderly, and infants can be particularly at risk from infection.

These people should seek advice about drinking water from their health care providers. USEPA/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 (1-800-426-4791.)



High Service Pumps
at Springhouse



#8 Well



Control Panel at Springhouse



Chlorine Pump at Springhouse

About your drinking water

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 water service lines and home plumbing. Oakwood 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. A list of laboratories certified in the State of Ohio to test for lead may be found at 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 (1-800-426-4791) or at www.epa.gov/safewater/lead.

The EPA requires regular sampling to ensure drinking water safety. Oakwood conducted sampling for bacteria, nitrates, total trihalomethanes (TTHM), haloacetic acids (HAA5) and lead and copper during 2022. Over the past three years, samples were collected for a total of 125 different contaminants, most of which were not detected in the city of Oakwood's water supply. The Ohio EPA requires Oakwood to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

As the data shows, Oakwood complied with all Maximum Contaminant Level (MCL) standards for drinking water during 2022. Oakwood softens its water from approximately 27 grains per gallon to an average of 12 grains per gallon. In 2022, Oakwood had an unconditioned license to operate the public water system as issued by Ohio EPA.

Revised Total Coliform Rule (RTCR) information

All water systems were required to begin compliance with a new rule, the Revised Total Coliform Rule, on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes E. coli bacteria. The USEPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found, these must be corrected by the Public Water System.

How do I participate in decisions concerning my drinking water?

Public participation and comments on any city issues, including our public water system, are encouraged. This can be done by contacting city staff or by attending regular meetings of Oakwood City Council. City Council typically meets at the City Building, 30 Park Avenue at 7:30 pm the first Monday of every month. Please check the city website www.oakwoodohio.gov to verify meeting dates and times.

For more information on your drinking water, contact Scott Loper, Water Plant Superintendent, or Doug Spittler, Director of Engineering and Public Works, at (937) 298-0777.

Definitions of terms contained within this report

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water 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 contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter ($\mu\text{g/L}$) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

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

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 Disinfectant Level (MRDL): 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.

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

Not Detected (ND): The level of contaminant was below the level detectable with current testing technology.

The < symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

Listed below is information on those contaminants that were found in the Oakwood drinking water.

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Bacteriological							
Coliform Bacteria (% positive/month)	0	5%	0	Not detected	No	Monthly	Naturally present in the environment
Inorganic Contaminants							
Fluoride ¹ (ppm) 210 Shafor 120 Springhouse	4	4	0.27 0.22	0.22 - 0.27	No	2021	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Barium (ppm) 210 Shafor 120 Springhouse	2	2	0.143 0.0554	0.0554 - 0.143	No	2021	Erosion of natural deposits; Discharge from metal refineries; Discharge of drilling wastes.
Cadmium (ppb) 210 Shafor 120 Springhouse	5	5	ND ND	ND	No	2021	Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paint; Corrosion of galvanized pipes.
Nitrate (ppm) 210 Shafor 120 Springhouse	10	10	1.3 1.1	1.1 - 1.3	No	2022	Fertilizer runoff/natural geology.
Regulated in the Distribution System							
Trihalomethanes (ppb)	N/A	80	19.0	4.4 - 19.0	No	2022	By-products of chlorination
Haloacetic Acids (ppb)	N/A	60	2.6	0 - 2.6	No	2022	By-products of chlorination
Volatile Organic Contaminants – Unregulated							
Bromoform (ppb)	N/A	N/A	4.8	1.0 - 4.8	No	2022	By-products of chlorination
Chloroform (ppb)	N/A	N/A	1.5	0.50 - 1.5	No	2022	By-products of chlorination
Bromodichloromethane (ppb)	N/A	N/A	4.7	1.1 - 4.7	No	2022	By-products of chlorination
Dibromo-chloromethane (ppb)	N/A	N/A	7.9	1.8 - 7.9	No	2022	By-products of chlorination
Residual Disinfectants							
Chlorine (ppm) ²	MRDL= 4	MRDLG= 4	0.9	0.4 - 0.9	No	Weekly	Water additive to control microbes

Table of Detected Contaminants Footnotes

1. The City of Oakwood does not add fluoride supplements to the water it produces.
2. Level found is the highest running annual average.

Lead and Copper						
Contaminants (Units)	Action Level (AL)	90% of test levels were less than	Individual Result over the AL	Violation	Year Sampled	Typical source of Contaminants
Lead (ppb)	15	2.9	0	NO	2022	Corrosion of household plumbing material
	0 out of 20 samples was found to have a lead level in excess of the action level of 15 ppb					
Copper (ppm)	1.3	0.220	0	NO	2022	Corrosion of household plumbing material
	0 out of 20 samples were found to have copper levels in excess of the action level of 1.3 ppm					

EASY THINGS YOU CAN DO TO PROTECT DRINKING WATER SOURCES



Properly dispose of hazardous products

Use and dispose of harmful materials properly

Don't dump hazardous waste on the ground. It can contaminate the soil, which could also contaminate the ground water or nearby surface water. A number of products used at home contain hazardous or toxic substances that can contaminate ground or surface waters, such as:

- Motor oil
- Pesticides
- Leftover paints or paint cans
- Mothballs
- Flea collars
- Household cleaners
- A number of medicines

Don't overuse pesticides or fertilizers. Many fertilizers and pesticides contain hazardous chemicals. These can travel through the soil and contaminate ground water. If you feel you must use these chemicals, please remember to use them in moderation.