CITY OF RAVENNA – WATER TREATMENT PLANT

2024 Annual Consumer Report on the Quality of Tap Water

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This report is also available on the World Wide Web at: www.ravennaoh.gov

This annual report provides summary information from 2024 about your drinking water. The Ravenna Public Water System 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. In 2024, the Ravenna Water Treatment Plant had an unconditional license to operate the water system.

Source Water Information

The City of Ravenna Public Water System uses surface water drawn from Lake Hodgson. For the purposes of source water assessments in Ohio, all surface waters are susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by various methods in a short period of time. The City of Ravenna's source water protection area contains a moderate number of potential contaminant sources, which include agricultural run-off, private septic systems, oil and gas wells, run-off from constructions sites and road crossings. The City of Ravenna Public Water System treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The Ohio Environmental Protection Agency prepared the Source Water Assessment Summary and Report. Copies of the Ravenna Source Water Assessment Summary and Report are available online at https://www.ravennaoh.gov/departments/utilities/water-treatment/.

Lake Hodgson source water can generate aesthetic issues. It is a common occurrence for algae to grow in any lake during certain times of the year. The source water quality results are not included in this report. The algae can cause an objectionable taste and odor to be imparted in the water. Harmful algal bloom toxins have never been detected in our finished drinking water. The City of Ravenna has invested in a treatment system that utilizes powdered activated carbon to remove objectionable tastes and odors. Since powdered activated carbon is a very expensive chemical, its use is minimized to contain costs while maintaining a dosage sufficient to eliminate the most objectionable taste or odors.

The City of Ravenna distributed 537 million gallons to Ravenna customers. The City of Ravenna also maintains an emergency connection with the City of Kent. During 2024, Ravenna used 6.4 million gallons from this connection for maintenance from Kent. The City of Kent used a total of 0.355 million gallons for maintenance for the year 2024. On average this connection is used for a total of 3.25 days a year but is spread out over 26 weeks. This report does not contain

the water quality received from the City of Kent, but a copy of the consumer confidence report can be obtained from the City of Kent water plant by calling John Ellison at (330) 676-7220 or by checking the Consumer Confidence Report online link at https://www.kentohio.gov/living-here/utilities/water-distribution.

What are the 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. Drinking Water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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).

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

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, 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 infection. These people should seek advice about drinking water from their health care providers. US EPA/Centers for Disease Control and Prevention (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).

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The Ravenna Public Water System conducted sampling for bacteria, inorganic, synthetic organic, and volatile organic contaminants during 2024. Samples were collected for a total of 49 different contaminants, most of which were not detected in the Ravenna Public Water System. The Ohio EPA requires us to monitor some contaminants less than once per year because the concentration of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, apartments, nursing homes, schools, businesses). You can do this by posting this notice in a public place or distribute copies by hand or mail.

Contact Us

You are welcome to contact The Ravenna Water Treatment Plant regarding information in this report or other water questions by phone call at (330) 296-2741. Visit the City of Ravenna on the Internet at http://www.ravennaoh.gov.

To report hydrant tampering or illegal cross connections with city water please contact Water Distribution at 330-296-3114. For more information about backflow and cross connections please visit https://www.ravennaoh.gov/departments/service-department/street-department/backflow-prevention-and-cross-connection-control/.

Table of Detected Contaminants

Sample Year 2024 Contaminants (units)		Action Level (AL)	MCLG	Individual Results over AL	90th Percentile	Year	Violation	Typical Sources in Drinking Water + +
Lead and Copper Testing	Copper (ppm)	1.3 ppm	0	0	0.267	2024	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
		Out of 30 city samples, none were found to have copper levels in excess of the action level of 1.3 ppm.						
	Lead (ppb)	15 ppb	0	0	3.82	2024	No	Corrosion of household plumbing systems; Erosion of natural deposits
		Out of 30 city samples, none were found to have lead levels in excess of the action level of 15ppb.						

+Lead and Copper samples are tested yearly in homes throughout Ravenna.
++ There is no detectable lead in our water as it leaves the treatment plant. Corrosion of household plumbing systems is a source of lead and copper contamination. Water samples are collected at customer taps as required by the Safe Drinking Water Act to ensure safe water.

The Ravenna Public Water System Lead and Copper Monitoring regularly monitors lead and copper at homes in our service area that meet Tier 1 requirements. Our monitoring results have been below the federal action level for lead of 15 part per billion (ppb) for over 20 years. These low levels are the result of successful water treatment techniques and that enabled us to be on a reduced monitoring schedule in the past.

The Unknown Sources of Lead in a Home and the Tips to Prevent Exposure

Knowing the date of installation of the plumbing in your home will help you to understand the risk of lead exposure through pipes, solder, faucets, and fixtures. Plumbing or fixtures installed between 1982- 1986 could contain lead. Faucets manufactured between 1986 and 2014 could also contain lead in their makeup. As a standard practice the U.S. EPA recommends the actions: clean, flush, and consume cold. All three are important steps to take when the water service is restored after repairs or maintenance.

*Clean your faucet aerators screens regularly. Small particles of solder and other material can accumulate in faucet aerators and in some circumstances can release lead into the water. Aerators should be cleaned at least twice a year and after work on your plumbing. See your facet manufacturers' guidelines for instructions.

*Flush your cold-water lines before consuming water when water that has not been used for 6 or more hours. To flush the plumbing, run water until you feel a temperature change then run water for an additional 30 seconds to 3 minutes. The time depends on the length and diameter of your service line. The farther your home is from the street, the longer you need to flush the line.

*Use cold water for cooking, drinking, and preparing baby formula. Hot water corrodes pipes faster and is more likely to contain lead. If you need hot water for food or drinks, get water from the cold-water tap and then heat the water.

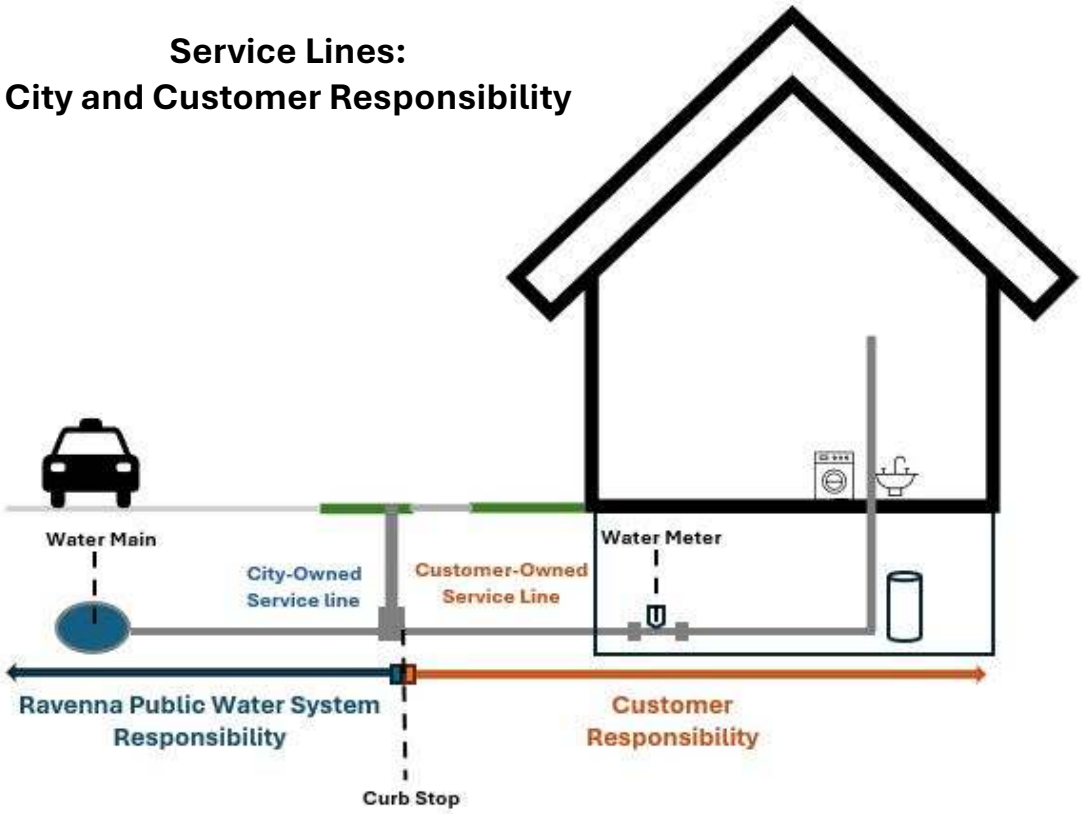
To Prevent Exposure, Remember To:

Clean Aerators **Flush Lines** **Use Cold**

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 City of Ravenna 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

Per the Lead and Copper Rules, The Ravenna Public Water System was required to develop and maintain a Service Line Inventory. A service line is the underground pipe that supplies your home or building with water. To view the Service Line Inventory, which lists the material type(s) for your location, you can visit https://www.ravennaoh.gov/departments/utilities/.



TAMPERING LAW: The State of Ohio has a law (ORC 4933.19) which makes tampering with city meters or equipment illegal and establishes penalties for violations. Penalties are prescribed for the following illegal acts:

1. Interfering with or by-passing a water meter or attachment to impede or reduce correct registration of the meter.
2. Reconnecting water service that has been disconnected or shut-off by the city for non-payment or other reasons.

Anyone found guilty of these illegal acts may be subject to a maximum of five years in jail or a maximum fine of $2,500 or both.

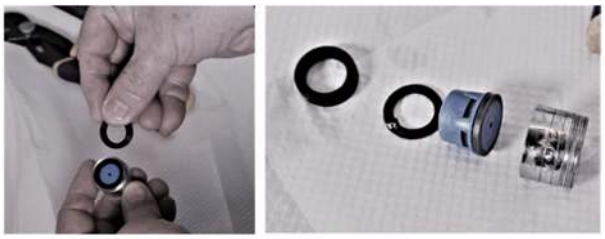
In addition, persons convicted must pay for the value of the water stolen and for any damaged equipment. Proof that a meter, pipe, valve, or other attachment has been tampered with or reconnected is presumptive evidence that the customer or user has caused the tampering or reconnecting. It is no longer necessary to catch a person in the act of tampering or reconnecting

Clean Aerators

Cleaning faucet aerators at least twice per year and after disruptions in water service is important for maintaining the quality of water coming into your home. Aerator screens are made of metal or plastic and attach to the end of the faucet. During normal use aerators may accumulate tiny particles of sediment that have corroded from inside your home's plumbing and hot water tank. There are different types of aerators. The standard aerator screws onto the tip of the faucet and is the most common. Recessed faucet aerators may be inserted into some kitchen sink spray nozzles. Another type are called cache aerators, which need a special key or wrench to remove. Faucets with cache aerators are originally packaged with a flat metal or plastic tool that can be placed into the aerator grooves to unscrew it. If you do not have an aerator key set, one can be ordered online or by calling the manufacturer of your faucet. Instructions can be found online for most brands of faucet. It is also useful to take a photo with a camera phone or digital camera when the aerator is being taken apart for cleaning, so one can easily reassembly the aerator parts once finished.

Cleaning a Standard Aerator that Screws on to the Tip of Faucet

1. Remove aerator with adjustable wrench or once loosened, remove with fingers. Unscrew the screen until it comes off the tip of the faucet, by turning it clockwise if you are looking down at the top of the faucet.



2. Separate the parts of the screen. Rinse all parts with water and set into a small container.

3. If residue has accumulated on the screen or housing, soak the aerator parts in white vinegar for 20 minutes. Then, scrub all parts with a small clean brush.

4. Reassemble the aerator pieces and attach it to the faucet. Test the faucet for flow.

An Explanation of the Water-Quality Data Table

The regulated contaminants are listed in the tables along with the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for the public health, the amount detected, the usual sources of such contamination, notes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important. All abbreviations used in the table to shorten longer names are defined below. Please read these definitions below for each abbreviation in question to find out more. The data presented in this report are from the most recent testing done in accordance with the regulations. No data older than five years is included. Although we ran tests for many contaminants, only the listed substances were found. All results are below the Maximum Contaminant levels required.

Definitions

Action Level or AL: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Detected Level: The average level detected of a contaminant for comparison against acceptance levels for each parameter. These levels could be the highest single measurement, or an average of values depending on the contaminant.

Maximum Contaminant Level or 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 Contaminant Level Goal or 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 Residual Disinfectant Level Goal or 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.

Minimum Reporting Level (MRL): the smallest measured concentration of a substance that can be reliably measured by using a given analytical method.

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

Range: The range of all values for samples tested for each contaminant.

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

Unit Descriptions:

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

Part Per Trillion (ppt): Units of measure for concentration of contaminant. A part per trillion corresponds to 30 seconds every 30 million years.

Parts per Billion (ppb) or Micrograms per Liter (ug/l): Units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Nephelometric Turbidity Units, NTU: Measure of cloudiness of the water. We monitor this because it is a good indicator of the effectiveness of the plant filtration system. The EPA sets a limit of 0.3NTU in 95% of the samples analyzed each month not to exceed 1 NTU.

In 2024, The City of Ravenna Public Water System met or exceeded all regulatory requirements and had no violations.

Sample Year 2024 Contaminants (units)		MCLG	MCL	Level Found	Range of Detection	Violation	Typical Sources in Drinking Water
Microbiological	**Turbidity (NTU)**	N/A	TT (< 1NTU)	0.11	0.03-0.11	No	Soil Runoff
	Turbidity (% meeting Standard)	N/A	TT (%)	100	100	No	Soil Runoff
	Total Coliform (% positive samples in a month)*	0	TT (<5% of samples collected)	0	N/A	No	Naturally present in the environment
Disinfectan	**Total Chlorine (ppm)**	MRDLG 4	MRDL 4	0.98	0.83-1.17	No	A water additive used to control microbes
Organic	**TTHM (ppb)**	N/A	80**	30.7**	11.7-40.9	No	Total Trihalomethanes are a by-product of drinking water chlorination
	HAA5 (ppb)	N/A	60**	34.6**	19.6-58.2	No	Haloacetic acids are a by-product of drinking water chlorination
	Total Organic Carbon (ppm) * **	N/A	TT	1.07	1.00-1.61	No	Naturally present in the environment
Inorganic	**Fluoride (ppm)**	4	4	0.97	0.70-1.18	No	Naturally present in the environment from erosion, water additive to promote strong teeth
	Nitrate (**ppm**, measured as Nitrogen)	10	10	0.58	0.19-0.58	No	Run off from fertilizer, leaching septic tanks, sewage, erosion of natural deposits
	Barium (ppm)	2	2	0.016	N/A	No	Erosion of natural deposits
	Chlorite (ppm)	1.0	0.80	0.69	0.45-0.70	No	Byproduct of drinking water disinfection.

*Coliform samples collected in the distribution system.

** Running Annual Average from 2023-2024.

***The level reported under "Level Found" for Total Organic Carbon (TOC) is the lowest quarterly annual average ratio between percentage of TOC removed to the percentage of TOC required to be removed. A value greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals applied to many industrial, commercial and consumer products to make them 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 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. For more information about PFAS, please visit https:// epa.ohio.gov/pfas.

Unregulated Contaminants Rule, Fifth Round (UCMR5)

Unregulated contaminants are those for which U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of these contaminants in drinking water and whether future regulation is warranted. In 2023 the City of Ravenna participated in the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR 5). Several PFAS chemicals were found at very low levels that were near the detection limits of the test. As can be seen in the chart below. For a copy of the results please call Amy Wilson at (330) 296-2741. More information about UCMR monitoring requirements can be found on the USEPA website: epa.gov/dwucmr.

UCMR5 Contaminants (Units) (Typical Sources in Drinking Water)	**Sample Year**	**Average Level Found**	**Range of Detections**	**Sample Location**
perfluorohexanoic acid (PFHxA) (ppt) (Stain- and grease-proof coatings on food packaging and household products)	2023	0.9	Non-detect -0.9	Entry Point
Perfluorobutanoic Acid (PFBA) (ppt) (Stain-resistant fabrics, paper food packaging, photographic film)	2023	3.6	1.8 -7.1	Entry Point
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)(ppt) (Used in products to make them stain, grease, heat, and water resistant)	2023	0.9	Non-detect -0.9	Entry Point
Perfluorobutanesulfonic Acid (PFBS) (ppt) (Water and stain repellent products and coatings, paints, cleaning agents, food packaging)	2023	1.4	Non-detect -0.0014	Entry Point
perfluoroheptanoic acid (PFHpA) (ppt) (Used in products to make them stain, grease, heat, and water resistant)	2023	1.1	Non-detect -0.0011	Entry Point
perfluoropentanoic acid (PFPeA) (ppt) (Used in products to make them stain, grease, heat, and water resistant)	2023	1.2	1.1 – 1.2	Entry Point
perfluorooctanoic acid (PFOA) (ppt) (Fire-fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives, and photographic films)	2023	1.4	Non-detect -1.4	Entry Point

Public participation and comments are welcome at The Ravenna City council meetings with the schedule available at: https://www.ravennaoh.gov/departments/city-council/council-calendar/ or by calling (330) 297-2155. This report was prepared by Amy Wilson, Superintendent at the Ravenna Water Treatment Plant at (330) 296-2741 (amy.wilson@ravennaoh.gov). For more information call Dan Mounts, Chemist at the Ravenna Water Treatment Plant (330) 296-2741 (dan.mounts@ravennaoh.gov) or Tim Contant, Ravenna Service Director (330) 297-6326 tim.contant@ravennaoh.gov).