

2022 WATER QUALITY REPORT



Paducah Water is pleased to present this year's Annual Water Quality Report. Also known as the Consumer Confidence Report or CCR, this document is designed to inform the public about the quality of water and service Paducah Water delivered to its customers from January 1, 2021 through December 31, 2021.

Our commitment is to provide a safe, reliable supply of drinking water and we want to assure our customers that we will continue to monitor, enhance and sustain the water system in order to do so. In accordance with our Vision Statement, Paducah Water will always strive for excellence in serving the needs of our customers based upon high standards of integrity, competency and reliability, while continually improving ourselves and our product. This is our primary focus.

Jason Petersen, PE
General Manager



WATER SOURCES

The source of the water supply for Paducah Water customers is the Ohio River, under the influence of the Tennessee River. Rivers are considered to be surface water sources. A final source water assessment for this system has been completed and is contained in the Source Water Assessment and Protection Plan Susceptibility Analysis and Protection Recommendations for McCracken County. The completed plan is available for inspection and can be obtained at the Purchase Area Development District office at 270-247-7171. A summary of the susceptibility analysis is as follows: An analysis of the susceptibility of PW's water supply to contamination indicates that this susceptibility is generally high. There are numerous petroleum storage facilities along the Ohio and Tennessee Rivers that provide fuel to land and river transportation. Numerous bridges cross the Ohio and Tennessee Rivers, as well as major tributaries such as the Clarks River and Island Creek. These bridges are of greater concern due to the possibility of hazardous materials infiltrating the water source near the intake due to traffic accidents, structural collapse of the bridge, or illegal dumping. River traffic is a concern that has become more prevalent in the past few years due in part to increased news coverage of accidents and collisions.

PADUCAH WATER CONTACT INFORMATION

Public Water System ID: KY0730533
Agency Interest Number: 3061

Physical Address:
1800 N. 8th Street
Paducah, KY 42001

Mailing Address:
P.O. Box 2377
Paducah, KY 42002-2377

For questions about the quality of our drinking water or about this report, call PW's Water Quality Supervisor at 270-444-5572. For other questions, call our office at 270-442-2746, send an email to info@pwwky.com, or visit our website at www.pwwky.com.

BOARD MEETINGS

The members of the Commissioners of Waterworks meet at 5:00 PM on the last Wednesday of each month. Meetings are held at the Paducah Water Business Office at the address listed above. Board meetings are open to the public.

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 having the described health effect.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. Copies of this report are available upon request by contacting our office during business hours.

Regulated Contaminant Test Results							
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Radioactive Contaminants							
Alpha emitters [4000] (pCi/L)	15	0	2.35	2.35 to 2.35	Apr-20	No	Erosion of natural deposits
Combined radium (pCi/L)	5	0	0.963	0.963 to 0.963	Apr-20	No	Erosion of natural deposits
Inorganic Contaminants							
Barium [1010] (ppm)	2	2	0.021	0.021 to 0.021	Jan-21	No	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride [1025] (ppm)	4	4	0.41	0.41 to 0.41	Jan-21	No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	0.578	0.578 to 0.578	Jan-21	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Disinfectants/Disinfection Byproducts and Precursors							
Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	1.32 (lowest average)	1.54 to 1.60 (monthly ratios)	2021	No	Naturally present in environment
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.							
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.23 (highest average)	0.2 to 2.4	2021	No	Water additive used to control microbes
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	41 (high site average)	14.3 to 61.3 (range of individual sites)	2021	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	58 (high site average)	20.3 to 76.2 (range of individual sites)	2021	No	Byproduct of drinking water disinfection
Household Plumbing Contaminants							
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.109 (90th percentile)	0.005 to 0.161	Sep-21	No	Corrosion of household plumbing systems
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	0 (90th percentile)	0 to 2	Sep-21	No	Corrosion of household plumbing systems
Other Constituents							
Turbidity (NTU) TT * Representative samples	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity		
Turbidity is a measure of the clarity of the water and not a contaminant.	No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples	0.10	100	No	Soil runoff		

Unregulated Contaminants (UCMR 4)	Average	Range (ppb)			Date
Manganese	7.250	2.08	to	17.1	Jan-18
alpha-hexachlorocyclohexane	0.017	0	to	0.067	Jan-18
total permethrin (cis- & trans-)	0.010	0	to	0.042	Jan-18
HAA5	31.769	0.59	to	50.4	Oct-18
HAA6Br	9.019	1.69	to	12.9	Oct-18
HAA9	40.263	11	to	53.8	Oct-18

Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that EPA has not established drinking water standards. There are no MCLs and therefore no violations if found. The purpose of monitoring for these contaminants is to help EPA determine where the contaminants occur and whether they should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact our office during normal business hours.

	Average	Range of Detection		
Sodium (ppm)	EPA guidance level = 20 ppm	15.1	to	15.1

The West McCracken Water District (WMWD) purchased water from Paducah Water through wholesale agreement and operated its distribution system under PWSID 0730454 until the system merged with Paducah Water on February 4, 2022. The data depicted below is representative of the WMWD system from January 1, 2021 through December 31, 2021. If you were served by the WMWD in 2021, the data in this chart pertains to your water quality.

Regulated Contaminant Test Results		West McCracken Water District PWSID 0730454						
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination	
Chlorine (ppm)	MRDL =4	MRDLG =4	1.35 (highest average)	0.59 to 1.92	2021	No	Water additive used to control microbes	
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	43 (high site average)	15.1 to 50.3 (range of individual sites)	2021	No	Byproduct of drinking water disinfection	
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	79 (high site average)	21 to 119 (range of individual sites)	2021	No	Byproduct of drinking water disinfection	
Household Plumbing Contaminants								
Copper [1022] (ppm) sites exceeding action level	AL =1.3	1.3	0.091 (90th percentile)	0.037 to 0.13	Sep-19	No	Corrosion of household plumbing systems	
0								



DEFINITIONS & ABBREVIATIONS

> Greater than

< Less than

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

Below Detection Level (BDL): Laboratory analysis indicates that the contaminant is not present.

Locational Running Annual Average (LRAA): The annual average of one monitoring location.

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 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 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Not Applicable (N/A): Does not apply.

Parts per billion (ppb): Micrograms per liter.

Parts per million (ppm): Milligrams per liter.

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

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



Paducah Water
P.O. Box 2377
Paducah, Ky 42002-2377

HOW TO OBTAIN THIS REPORT

The Annual Water Quality Report is mailed to only a few homes and businesses in our service area. It will be available online on May 23, 2022. Go to our website at www.pwwky.com and click on the Water Quality Report icon or type www.pwwky.com/ccr into your web browser. If you would like a paper copy of the Annual Report (CCR), please call, write, or stop by our business office.

****Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo o hable con alguien que lo entienda bien.***

SOURCE WATER CONTAMINANTS

The sources of drinking water (both tap 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:

- Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife).
- Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming).
- Pesticides and herbicides, (stormwater runoff, agriculture or residential uses).
- Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems).
- Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities).

SPECIAL HEALTH INFORMATION

In order to ensure that tap water is safe to drink, EPA 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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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. 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 (800-426-4791).

Lead – 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. Your local public water system 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 by calling the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.