2024 WATER QUALITY REPORT

FOR

Keosauqua Water Works

PWSID# 8938026

This report contains important information regarding the water quality in our water system. The water source for Keosauqua is Rathbun Regional Water Association, Inc. RRWA obtained its source water in 2024 from the Chariton River, below Lake Rathbun Dam and directly from Rathbun Lake, both a surface water source.

Our water quality testing shows the following results:

CONTAMINANT	MCL - MCLG	Compliance Type	Value & (Range)	Date	Violation	Source
KEOSAUQUA						
TTHM (ppb) [Total trihalomethanes]	80 (N/A)	LRAA	34.00 (26 –45)	12/31/2024	No	By-products of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	60 (N/A)	LRAA	23.00 (19 – 28)	12/31/2024	No	By-products of drinking water disinfection
Copper (ppm)	AL=1.3 (1.3)	90th	0.0791 (0.0216 – 0.102)	2023	No	Corrosion of household plumbing systems; erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL=15 (0)	90th	ND	2023	No	Corrosion of household plumbing systems; erosion of natural deposits
950 – DISTRIBUTION SYSTEM						
Chorine (ppm)	MRDL= 4.0 (MRDLG= 4.0)	RAA	1.8 (0.6 – 2.7)	12/31/2024	No	Water additive used to control microbes
Nitrite [as N] (ppm)	1 (1)	SGL	0.140	2024	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
RRWA						
950 – DISTRIBUTION SYSTEM						
01 - EAST PLANT @ AFTER TREATMENT						
Fluoride (ppm)	4 (4)	SGL	0.71 (0.60 – 0.71)	2024	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Barium (ppm)	2 (2)	SGL	0.06	01/13/2022	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Sodium (ppm)	N/A (N/A)	SGL	27	01/19/2024	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	0.57	2024	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Atrazine (ppb)	3 (3)	SGL	0.30	04/10/2024	No	Runoff from herbicide used on row crops
Dalapon (ppb)	200 (200)	SGL	0.30	04/06/2022	No	Runoff from herbicide used on rights of way
Turbidity (NTU)	N/A (N/A)	TT	0.094 (100%)	2024	No	Soil runoff
Total Organic Carbon	30%	TT	(34.4 – 59.5)	08/2024	No	Naturally Present in the Environment
03 - WEST PLANT @ AFTER TREATMENT						
Barium (ppm)	2 (2)	SGL	0.07	01/13/2023	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4 (4)	SGL	0.71 (0.60 – 0.71)	2024	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A (N/A)	SGL	28	01/19/2024	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	0.56	2024	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Metolachlor (ppm)	N/A (N/A)	SGL	0.0001	05/17/2023	No	Runoff from herbicide used on row crops
Atrazine (ppb)	3 (3)	SGL	0.20	05/17/2023	No	Runoff from herbicide used on row crops

Turbidity (NTU)	N/A (N/A)	TT	0.078 (100%)	2024	No	Soil runoff
Total Organic Carbon	30%	TT	(36.1 – 60.3)	08/2024	No	Naturally Present in the Environment

UCMR5

PFBA (ppb)	N/A (N/A)	SGL	0.0057 (0.0050-0.0057)	2024	No	Unregulated Contaminants Monitoring Rule, 5th Edition
Yttrium (ppb)	N/A (N/A)	SGL	95.5 (95.3 - 95.5)	2024	No	Unregulated Contaminants Monitoring Rule, 5th Edition
Lithium (ppb)	N/A (N/A)	SGL	2.1 (2.1 – 2.2)	2023	No	Unregulated Contaminants Monitoring Rule, 5th Edition

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

DEFINITIONS

- 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.
- ppb -- parts per billion.
- ppm -- parts per million.
- N/A – Not applicable
- N/D -- Not detected at testing limit.
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- NTU – Nephelometric Turbidity Units
- 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.
- 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.
- RAA - Running Annual Average
- IDSE – Initial Distribution System Evaluation
- SGL – Single Sample Result
- RTCR – Revised Total Coliform Rule
- pCi/L – picocuries per liter
- LRAA – Locational Running Annual Average

GENERAL INFORMATION

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 posed a health risk. More information about contaminants or potential health effects can 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 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 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).
If present, elevated levels of lead can cause 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. KEOSAUQUA WATER WORKS 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 or at http://www.epa.gov/safewater/lead.

OTHER INFORMATION

Turbidity is an indicator of treatment filter performance and is regulated as a treatment technique.

SOURCE WATER ASSESSMENT INFORMATION

Keosauqua Water Works obtains its water from the Rathbun Regional Water Association, Inc. whose source water in 2024 was the Chariton River after discharge from Rathbun Lake and directly from Rathbun Lake. This is a surface water source. RRWA's Chariton River intake is located below the Rathbun Lake Dam and the Rathbun Lake intake is located directly in Rathbun Lake. An assessment of the watershed has been completed that identifies and prioritizes potential sources of water pollution in the Rathbun Lake watershed that may impair the quality of the raw water for RRWA. These potential sources include wastewater treatment facilities, institutional, retail, and industrial facilities, recreational facilities, residential and commercial areas and land used for agricultural production with characteristics that increase the likelihood of eroded soil, chemicals and livestock waste being carried in runoff to streams, rivers and the lake. For a summary of the watershed assessment results and additional information contact: RRWA at 16166 Hwy J29, Centerville, IA 52544 or call 641-647-2416.

Surface Water Name	Susceptibility
Chariton River	High
Rathbun Lake	High

CONTACT INFORMATION

For questions regarding this information, please contact Matt Dietzman, Superintendent at 319-217-2339 or Jon Thornsberry, Assistant Superintendent at the City of Keosauqua, at 319-288-0874. Decisions regarding the water system are made at the regular scheduled meetings held on the second Tuesday of each month at 4:00 p.m. at the Keosauqua City Hall, 201 Main Street, Keosauqua, IA. 52565