wapello rural water association

2024 WATER QUALITY REPORT

This report contains important information regarding the water quality in our water system. The source of our water is groundwater and surface water. Our groundwater is drawn from the alluvial aquifer(s). Some of our water is purchased. Purchased water comes from Brighton Municipal Water Supply, Rathbun Regional Water (Mt. Pleasant) and Rathbun Regional Water Assn. Our water quality testing shows the following results:

DISTRIBUTION SYSTEM 950 – GROUND WATER SYSTEMS

CONTAMINANT	MCLG	MCL	TYPE	VALUE (RANGE)	DATE SAMPLED	VIOLATION	SOURCE
Lead (ppb)	0	AL=15	90th percentile	1.5 (ND-4)	2022	NO	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	1.3	AL=1.3	90th percentile	.0522 (.0026-.160)	2022	NO	Corrosion of household plumbing systems; Erosion of natural deposits
Chlorine (ppm)	4.0	4.0	RAA	1.2 (0.5-13)	12/31/2024	NO	Water additive used to control microbes
TTHM (ppb) [Total trihalomethanes]	N/A	80	SGL	58.00	11/13/2024	NO	By-products of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	N/A	60	SGL	12.00	11/13/2024	NO	By-products of drinking water disinfection

DISTRIBUTION SYSTEM 951 – SURFACE WATER SYSTEMS

CONTAMINANT	MCLG	MCL	TYPE	VALUE (RANGE)	DATE SAMPLED	VIOLATION	SOURCE
Lead (ppb)	0	AL=15	90th percentile	1.50 (ND-4)	2022	NO	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	1.3	AL=1.3	90th percentile	.05222 (.0026-.160)	2022	NO	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine (ppm)	4.0	4.0	RAA	2.1 (0.08-3.49)	12/31/2024	NO	Water additive used to control microbes
TTHM (ppb) [Total trihalomethanes]	N/A	80	SGL	39.00	10/21/2024	NO	By-products of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	N/A	60	SGL	6.00	10/21/2024	NO	By-products of drinking water disinfection

SOURCE ENTRY POINT 05 FROM DELTA PLANT

CONTAMINANT	MCLG	MCL	TYPE	VALUE (RANGE	DATE SAMPLED	VIOLATION	SOURCE
Combined radium (pCi/L)	0	5	SGL	1.1	07/06/2021	NO	Erosion of natural deposits
Fluoride (ppm)	4	4	SGL	.78	10/11/2024	NO	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A	N/A	SGL	12	10/10/2022	NO	Erosion of natural deposits; Added to water during treatment process
Dalapon (ppb)	200	200	SGL	.30	11/02/2022	NO	Runoff from herbicide used on right of way
Nitrate [as N] (ppm)	10	10	SGL	<0.25	2024	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Alpha emitters (pCi/L)	0	15	SGL	.9	07/08/2024	NO	Erosion of natural deposits

SOURCE ENTRY POINT 03 FROM BRIGHTON

CONTAMINANT	MCLG	MCL	TYPE	VALUE (RANGE)	DATE SAMPLED	VIOLATION	SOURCE
Alpha emitters (pCi/L)	0	15	SGL	6	03/09/2021	NO	Erosion of natural deposits
Sodium (ppm)	N/A	N/A	SGL	410	10/01/2024	NO	Erosion of natural deposits; Added to water during treatment process
Combined radium (pCi/L)	0	5	SGL	1.9	03/09/2021	NO	Erosion of natural deposits
Fluoride (ppm)	4	4	SGL	1.5	10/18/2022	NO	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories

SOURCE ENTRY POINT 04 FROM RATHBUN (MT PLEASANT WATER SYSTEM) WELL #4

CONTAMINANT	MCLG	MCL	TYPE	VALUE (RANGE)	DATE SAMPLED	VIOLATION	SOURCE
Alpha emitters (pCi/L)	0	15	SGL	3.2	04/16/2024	No	Erosion of natural deposits
Combined radium (pCi/L)	0	5	SGL	1.5	04/16/2024	NO	Erosion of natural deposits
Fluoride (ppm)	4	4	SGL	1.1	04/09/2019	NO	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A	N/A	SGL	130	04/12/2022	NO	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10	10	SGL	.17	2024	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

SOURCE ENTRY POINT 04 FROM RATHBUN (MT PLEASANT WATER SYSTEM) WELL #6

CONTAMINANT	MCLG	MCL	TYPE	VALUE (RANGE)	DATE SAMPLED	VIOLATION	SOURCE
Alpha emitters (pCi/L)	0	15	SGL	7.6	04/16/2024	NO	Erosion of natural deposits
Combined radium (pCi/L)	0	5	SGL	2.4	04/16/2024	NO	Erosion of natural deposits
Fluoride (ppm)	4	4	SGL	1.4	04/09/2019	NO	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A	N/A	SGL	130	04/12/2022	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

SOURCE ENTRY POINT – RATHBUN REGIONAL WATER - WEST PLANT

CONTAMINANT	MCLG	MCL	TYPE	VALUE (RANGE)	DATE SAMPLED	VIOLATION	SOURCE
Sodium (ppm)	N/A	N/A	SGL	28	01/19/2024	NO	Erosion of natural deposits; Added to water during treatment process
Atrazine (ppb)	3	3	SGL	.20	05/17/2023	NO	Runoff from herbicide used on row crops

Barium (ppm)	2	2	SGL	.07	01/13/2023	NO	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	SGL	.68	01/13/2023	NO	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Turbidity (NTU)	N/A	N/A	TT	0.078 100%	2024	NO	Soil runoff
Nitrate [as N] (ppm)	10	10	SGL	.56	2024	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

SOURCE ENTRY POINT – RATHBUN REGIONAL WATER - EAST PLANT

CONTAMINANT	MCLG	MCL	TYPE	VALUE (RANGE)	DATE SAMPLED	VIOLATION	SOURCE
Fluoride (ppm)	4	4	SGL	0.71 (.60-.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 waste; 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
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 row crops
Nitrate [as N] (ppm)	10	10	SGL	.57	2024	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

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.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND -- Not detected
- RAA – Running Annual Average
- IDSE – Initial Distribution System Evaluation
- 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.
- 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.

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 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. Wapello Rural Water Assoc. 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.

HEALTH EDUCATIONAL INFORMATION

Lead- Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or, high blood pressure.

Nitrite- Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Arsenic- Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

SOURCE WATER ASSESSMENT INFORMATION

This report contains information regarding the water quality in our water system. Wapello Rural Water obtains most of its ground water from the alluvial aquifer located near the South Skunk River south of Delta, Iowa. The Iowa Department of Natural Resources Geological Survey Bureau has determined the aquifer to be highly susceptible to contamination because of the characteristics of the aquifer and the overlying material allows the easy access of contamination to the aquifer. Wapello Rural Water wells will be susceptible to most containment sources through pathways to the aquifer such as abandoned or poorly maintained wells. Ground water is also purchased from Mt. Pleasant and Brighton. Mt. Pleasant and Brighton draw from the Cambrian-Ordovician aquifer and was determined not to be susceptible to contamination because of the characteristics of the aquifer overlying materials prevent easy access of contamination to the aquifer.

Our Surface water is purchased from Ottumwa Water Hydro and drawn from the Des Moines River. A source water assessment for the Des Moines River has been completed by the Iowa Department of Natural Resources. They found easy access to contamination source to include but not limited to: soil erosion, chemicals such as fertilizer and pesticides, animal agriculture, waste water facilities, septic systems and petroleum products.
Water source assessments can be seen at the Office of Wapello Rural Water in Ottumwa during regular business hours.

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

CONTACT INFORMATION

For questions regarding this information, please contact Dan Westegard at (641) 682-8351 during the following hours: 7:00 am to 3:30 pm Monday – Friday.

Decisions regarding the water system are made at the Wapello Rural Water Assoc. Board meetings held on the second Wednesday of each month at 5:30 p.m. at 534 Shaul Ave Ottumwa, IA. ***This institution is an equal opportunity provider and employer.***