Annual Drinking Water Quality Report – 2017

We are pleased to present our Annual Drinking Water Quality Report for 2017. This report is designed to inform our customers, the owners of the water system, about the quality of the water we deliver to you every day. We are committed to ensuring the highest quality water by providing a safe and dependable water supply.

We routinely monitor for constituents in your drinking water in accordance with federal and state laws. This report shows the results of our monitoring for the year ending December 31, 2017.

We continually strive to improve the water treatment process and protect our water resources and are once again happy to report that our drinking water is in compliance with state and federal regulations.

How Do We Keep the Water Safe?

We disinfect the water with low levels of chlorine to reduce the risk of microbial contamination. A small amount of chlorine kills bacteria and viruses that can be present in groundwater. Chlorine also travels with the water and is ready to kill microbes that it might encounter in the system.

Fluoride is also added to the water system to improve dental health and reduce tooth decay. The US Centers for Disease Control and Prevention (CDC) and Wisconsin Department of Health Services recommend maintaining an average fluoride level of 0.7 mg/L. Water from each well is tested daily to achieve this target level.

Sources of Water

Our sources of water consist of five deep groundwater wells which range from 420 to 752 feet deep. Water comes from a deep sandstone aquifer, an underground rock formation, where water is stored in small spaces between and within rock. Groundwater in the Waunakee area originates as rain or snow that falls in Dane County, soaks into the ground, and is filtered through layers of soil and rock before replenishing the aquifer. Natural filtration produces high quality water for us to enjoy. Please contact Randy Dorn at (608) 849-4107 to obtain a summary of the source water assessment.

Health 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 poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's safe drinking water hotline at (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 systems 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 Environmental Protection Agency's safe drinking water hotline at (800) 426-4791.

Educational Information

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: Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; 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; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses; 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; 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Detected Contaminants

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last five years, it will appear in the tables below along with the sample date.

Disinfection Byproducts (Units)								
Contaminant (units)	**Site**	**MCL**	**MCLG**	**Level Found**	**Range**	**Sample Date (if prior to 2017)**	**Violation**	**Typical Source of Contaminant**
HAA5 (ppb)	D-FHALD	60	60	1	1		No	By-product of drinking water chlorination
TTHM (ppb)	D-FHALD	80	0	1.7	1.7		No	By-product of drinking water chlorination
HAA5 (ppb)	D-FHARD	60	60	0	0		No	By-product of drinking water chlorination
TTHM (ppb)	D-FHARD	80	0	0	0		No	By-product of drinking water chlorination
Inorganic Contaminants (Units)								
BARIUM (ppm)		2	2	0.025	0.007 - 0.024		No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
CHROMIUM (ppb)		100	100	2	1 – 2		No	Discharge from steel and pulp mills; erosion of natural deposits
FLUORIDE (ppm)		4	4	0.1	0.1 - 0.1		No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
NICKEL (ppb)		100		0.84	0.57 - 0.84		No	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
NITRATE (N03-N) (ppm)		10	10	4.90	0.21 – 6.40		No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
SODIUM (ppm)		n/a	n/a	8.40	2.20 - 8.40		No	Erosion of natural deposits. Road salt application.
THALLIUM TOTAL (ppb)		2	0.5	0.1	0.0 - 0.1		No	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Radioactive Contaminants (Units)								
RADIUM, (226 + 228) (pCi/l)		5	0	2.1	1.4 - 2.1		No	Erosion of natural deposits

Contaminant (Units)	**Action Level**	**MCLG**	**90th Percentile Level Found**	**# of Results**	**Sample Date (if prior to 2017)**	**Violation**	**Typical Source of Contaminant**
COPPER (ppm)	AL=1.3	1.3	0.13	0 of 30 results were above the action level.		No	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
LEAD (ppb)	AL=15	0	3.20	0 of 30 results were above the action level.		No	Corrosion of household plumbing systems; Erosion of natural deposits

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

Contaminant (units)	**Level Found**	**Range**	**Sample Date (if prior to 2017)**
SULFATE (ppm)	11.00	0.00 - 11.00	
METHYL-TERT-BUTYL-ETHER (ppb)	5.58	0.45 - 7.0	

Chromium (Total): average 2.1058 ug/L, range .507 ug/L, Cobalt: average < 1 ug/L, range < 1 ug/L, Molybdenum: average < 1 ug/L, range < 1 ug/L, Vanadium: average .2704 ug/L, range .235 ug/L.

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
pCi/l	Picocuries per liter (a measure of radioactivity)
ppm	Parts per million, or milligrams per liter (mg/l)
ppb	Parts per billion, or micrograms per liter (ug/l)
TCR	Total Coliform Rule

Additional Health Information

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

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. We are 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 www.epa.gov/safewater/lead.

Opportunity for Input on Decisions Affecting your Water Quality

The Waunakee Utilities Commission holds monthly meetings, generally scheduled for the fourth Monday of the month, to discuss matters affecting the water utility. These meeting are held at the Waunakee Utilities facility at 322 Moravian Valley Road and are open to the public.

Stay Informed

Stay informed about the quality of your water. Visit us at waunakeeutilities.com for more information or contact Randy Dorn, Water Department Manager, at (608) 849-4107 with any questions about this report or the quality of the water supply.

Do Your Part to Protect Groundwater

Here are a couple things you can do to help protect the water supply:

- Properly dispose of household hazardous chemicals through Clean Sweep, danecountycleansweep.com
- Use non-toxic or biodegradable cleaning products
- Promote healthy lawns and gardens without the use of harmful chemicals, clean-water.uwex.edu/pubs
- Limit use of winter salt on sidewalks and driveways