ANNUAL WATER QUALITY REPORT

Reporting Year 2018

Presented By

Elk River
Municipal Utilities

PWS ID#: 1710004

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education, while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water. For more information about this report, or for any questions relating to your drinking water, please call Elk River Municipal Utilities at (763) 441-2020. If you'd like to view this report in a digital format, go to www.ermumn.com.

Where Does My Water Come From?

Elk River Municipal Utilities wells are supplied from the Mt. Simon-Hinckley Aquifer. The entire water system is constituted of 8 wells, 4 water towers, nearly 120 miles of water main, and 1,244 fire hydrants. In 2018, Elk River Municipal Utilities pumped over 822.5 million gallons of water.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.

ERMU Staff

BY THE NUMBERS

The number of Olympic-sized swimming pools it would take to fill up all of Earth's water. **800 TRILLION**

1 CENT The average cost for about 5 gallons of water supplied to a home in the U.S.

The amount of Earth's water that is salty or otherwise undrinkable, or locked away and unavailable in ice caps and glaciers. **99%**

50 GALLONS The average daily number of gallons of total home water use for each person in the U.S.

The amount of Earth's surface that's covered by water. **71%**

330 MILLION The amount of water on Earth in cubic miles.

The amount of Earth's water that is available for all of humanity's needs. **1%**

75% The amount of the human brain that contains water.

Auburn Tower Is Getting All Gussied Up

This summer, Auburn Tower (east of Hwy. 169, north of 193rd avenue) will be getting resurfaced. It will be sandblasted and receive several coats of paint to make it all shiny and new! So if you notice a large drape hanging, pay no attention to the tower behind the curtain. It's going in for a fresh makeover! This helps to maintain the integrity of the structure and adds longevity to its operational life.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

> "We remain vigilant in delivering the best-quality drinking water"

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban storm-water runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

> For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

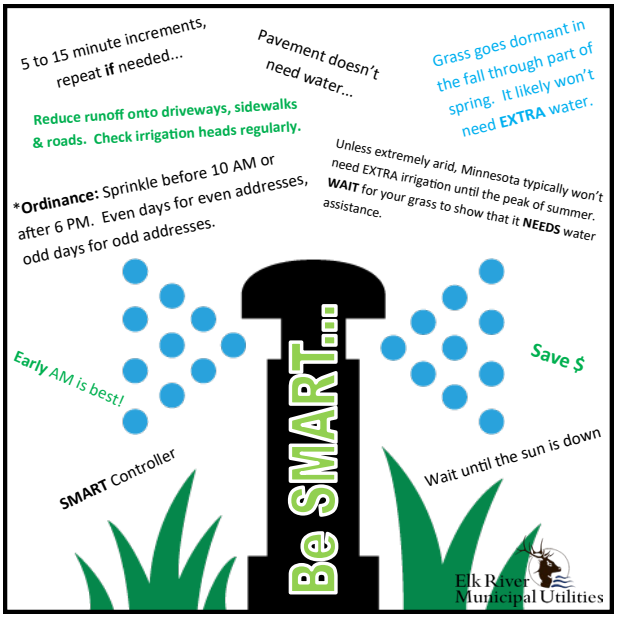
If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

Seconds Matter -- Don't Forget Your Neighboring Hydrants

Each year, the Harley Owners Group helps Elk River citizens by shoveling out hydrants from the snow. We appreciate all of their amazing work! They were gracious enough to help the community a couple of days this winter. However, it is recommended to tend to your own neighboring hydrant(s), if able. Please be careful if you choose to clear them out. There are over 1,200 hydrants and volunteers are never a guarantee to assist residents with the task, especially with the number of potential snowfalls each winter. This past winter was a prime example of just how much snow Minnesota can encounter. Please keep an eye on hydrants with snow accumulation to ensure firemen have quick access to protect your home.

SMART Irrigation Best Practices and Irrigation Tune-Up Rebate

Water between 2 a.m. and 6 a.m. (coolest part of the day and not in the sun) in short increments, and repeat if needed once other areas have been watered. This will allow for proper absorption. Sprinkling zones should NOT be watered more than 30 minutes at a time. Most lawns would benefit from getting 5-15 minutes in one zone/area, and then moving on to another zone/area, then returning for another 5-10 minute session once other zones are completed. By running water more than 20-30 minutes in a zone, the water bypasses the roots or runs off, causing huge water waste and promoting turf disease. Look into SMART irrigation controllers that have this programming function, and also have ET weather sensors. Go to our website www.ermumn.com to get more details on getting a $50 rebate for having your irrigation system tuned up!



Lead in Home Plumbing

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 we 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. And, the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
2,4-D (ppb)	2017	70	70	0.25	NA	No	Runoff from herbicide used on row crops
Barium (ppm)	2018	2	2	0.02	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2018	[4]	[4]	0.73	0.58–0.83	No	Water additive used to control microbes
Fluoride (ppm)	2018	4	4	0.67	0.63–0.69	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2018	60	NA	8.4	1.30–8.40	No	By-product of drinking water disinfection
Nitrate (ppm)	2018	10	10	2.0	0–2.0	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2018	80	NA	14.2	6.60–14.20	No	By-product of drinking water disinfection
Xylenes (ppm)	2018	10	10	0	0–0	No	Discharge from petroleum factories; Discharge from chemical factories

Tap Water Samples Collected for Copper and Lead Analyses from Sample Sites throughout the Community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2016	1.3	1.3	0.15	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2016	15	0	2.4	0/30	No	Lead services lines; Corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium[1] (ppm)	2018	4.18	3.01–4.18	Naturally occurring
Sulfate (ppm)	2018	6.98	2.79–6.98	Naturally occurring

[1] In-home water softening can increase the level of sodium in your water.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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. MCLs are set as close to the MCLGs 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. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).