

# ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020

***Presented By***







## Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education, while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

## Tips and Reminders for Irrigation

- Consider a SMART irrigation controller; often, they can pay for themselves in 1-3 years by their water-saving abilities. And your grass will be healthier when the controller is set up properly. Most are more user-friendly than the regular types as well.
- Check/change your rain sensor batteries at the start and mid-sprinkling season to ensure you're not irrigating when moisture level is already high. (State Statute:103G.298—required to have a working rain sensor).

- City of Elk River: Do not water from 10 a.m.—6 p.m., and there are even and odd per address requirements (if your address ends in an odd number, you water on odd days of the month, and vice versa). It's best to water in the early a.m.; between 2 a.m. and 4 a.m. is prime for our area!



- Cycle your zones. "Soak and Cycle" \*Short periods of time, more often\*. Typical flat ground needs between 15-30 minutes during the middle of irrigation season; try to break them into two or three cycles. So, if it's spring and moisture is high, sprinkle for three five-minute intervals to make the full 15 minutes. Add time when not sufficient (noticeable difference). If the watering zone has moderate to major slope, be sure to reduce sprinkling times, or you're just creating unused runoff water, which takes away nutrients from the topsoil. This goes for sandy soil as well. Water a bit less, or the water runs right past the roots. Instead, you want to promote deeper root growth by doing shorter watering more often. Each month or trend of the season may need your continual evaluation if you do not have a SMART controller. So, you should change your times/water durations every 2-4 weeks to fit the changes. It may help to find out at what threshold your lawn starts to turn less green (lacking water), so you can find your minimum watering time as an annual standard, if the season seems average in rainfall/heat. This can help to assess your lawn's needs.
- More watering means more mowing, but not generally healthier grass. So, less maintenance and happier grass.
- Check your system heads often. One broken head can make a huge difference in water waste.

Feel free to let us know if you have questions on these tips.

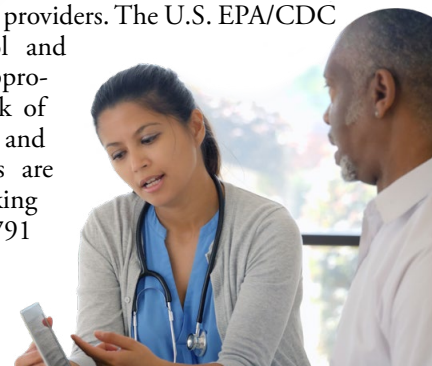
## Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our office, or you may search "Elk River" at [www.health.state.mn.us/communities/environment/water/swp/swa.html](http://www.health.state.mn.us/communities/environment/water/swp/swa.html). This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources.

About 90% of our drinking water supply management area (DWSMA) is considered non-vulnerable and less than 10% is vulnerable. Our Wellhead Protection Plan has many items that address limiting or stopping potential contamination.

## 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>.



## QUESTIONS?

For more information about this report, or for any questions related to your drinking water, please call the Elk River Municipal Utilities at (763) 441-2020, or go to [www.ermumn.com/services/water/water-quality-report](http://www.ermumn.com/services/water/water-quality-report) if you'd like to view this report in a digital format.



## Backflow Prevention Devices – What They Do and Why They Are Important

**B**ackflow prevention is essential in keeping our water safe. Most homes and businesses have backflow-prevention devices in place, to stop the chance of contaminating the community water supply via a building's internal plumbing, or from water that has been released, for use, being drawn back into a building's plumbing system. If there is a loss of pressure within a plumbing system, which has no backflow prevention device, water that has been released may be drawn (sucked) back into the plumbing and could contaminate water that is being held in the plumbing system. Consumption of this now contaminated water could result in severe illness. Once a plumbing system is contaminated, the contamination could be pulled back into the primary water system (community water system) and compromise water for many others. It is imperative for backflow-prevention devices, such as a pressure vacuum breaker (PBV/RPZ), to be checked by a certified backflow assembly tester. It is important to note that this certification is more than just a plumbing license.

One location that these devices are required is on irrigation system plumbing. You may notice them alongside your home. The backflow-prevention device protects you by preventing water that has been released into your irrigation system and lawn from being drawn back into your home, where you could potentially consume

it or somehow use the already ejected water should there be a loss of system pressure. In time, you will likely hear more from us on this topic, but we wanted to let you know how backflow-prevention devices are providing you and the entire community with water quality protection. All backflow-prevention devices are required by state plumbing code to be tested annually and rebuilt as needed. Annual inspection results for backflow devices must be reported to the public water supplier, as they are available for verification by the Minnesota Department of Health (MDH).

\*State of Minnesota Plumbing Code 4714.603.5.23

Stay tuned for ERMU's PVB Inspection Program details; more information will be delivered to customers soon and information will be posted on our website.



## Where Does My Water Come From?

**E**lk River Municipal Utilities' wells are supplied from the Mt. Simon-Hinckley Aquifer. There are eight wells, four water towers, over 121 miles of water main, 1,267 fire hydrants, and just under 3,000 valves. In 2020, Elk River Municipal Utilities pumped over 872 million gallons of water. We are proud to serve over 5,400 water customers.



## Lead in Home Plumbing

**I**f 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](http://www.epa.gov/safewater/lead).





ERMU worked together with the City to tend to Lake Orono during the dredging process. ERMU Water Operators regulated lake levels via the dam for optimal drainage.

## 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:

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.



## 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)	2020	[4]	[4]	0.74	0.66–0.89	No	Water additive used to control microbes
Fluoride (ppm)	2020	4	4	0.68	0.59–0.72	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories
Gross Alpha (pCi/L)	2020	15.4	0	3.6	0–3.6	No	Erosion of natural deposits
Haloacetic Acids [HAAs] (ppb)	2020	60	NA	3.8	3.70–3.8	No	By-product of drinking water disinfection
Nitrate (ppm)	2020	10.4	10	1.7	0.00–1.70	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2020	80	NA	12.3	7.7–12.3	No	By-product of drinking water disinfection

### 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)	2019	1.3	1.3	0.28	1/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2019	15	0	1.8	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
Manganese (ppb)	2019	0.41	0–0.81
Sodium <sup>1</sup> (ppm)	2020	4.43	2.76–4.43
Sulfate (ppm)	2020	16.3	2.45–16.3

<sup>1</sup>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.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**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).