Coleraine

Public Works

September 14, 2020

The contribution of the use of the bucket truck and staff for painting has been completed at the Mackley auto repair building. As well as Painting of crosswalks thanks to the participation of volunteers for Day of Action.

Recent storm damage has compromised shoulders on the north end of Midway Ln.
Which we are in the process of repairing.
The resent storm events compromised a culvert on Pear Lk. Road and created a sink hole. We were able to fill the void with material and shore the road surface up. But we will be replacing the culvert yet this fall.

We have replaced two culverts on Hakala Ln. that were compromised and also removed sharp bump due to the culvert heaving.

Bargen Inc. has fulfilled the contract with crack sealing the agreed upon roads with the addition of the Jess Harry road in Centennial Acres.

The repair of the catch basin on Mitchell St. and West Ave. will start this week.

The tractor has been repaired and are working on mowing of our rural roadways.

Hydrant flushing for this fall was September 8th through the 11th and has been completed.

Sewer jetting will be started the week of September 14th.

I have forwarded quotes for Pickup, UTV, and sanitation stations to Briana.
There are Two quotes for pickups and the UTVs and would like discussion over vehicles before any decisions are made.
With ordering a pickup and not taking possession of it until the spring of 2021 we need to decide what to do with the current pickup as winter is coming fast.

Public Works Supervisor
Harry Bertram

DEPARTMENT OF HEALTH

PROTECTING, MAINTAINING & IMPROVING THE HEALTH OF ALL MINNESOTANS

September 1, 2020

RECEIVED
SEP 08 2020
CITY OF COLERAINE

Coleraine City Council
c/o Ms. Briana Anderson, Clerk
302 Roosevelt Avenue
P.O. Box 670
Coleraine, Minnesota 55722 - 0670

Dear Council Members:

SUBJECT: Lead/Copper Tap Water Monitoring Report, PWSID 1310006

This letter is to report the results of your recent lead/copper monitoring that is required by the Safe Drinking Water Act. The results revealed the following 90th percentile levels:

90th percentile lead level = 2 µg/l (rounded as 0.002 mg/l).
The action level for lead is 15.0 µg/l.

90th percentile copper level = 1350 µg/l (rounded as 1.350 mg/l).
The action level for copper is 1300 µg/l.

Based on these results, your public water system **has not exceeded** the action level for lead and **has exceeded** the action level for copper.

By federal rule, 40 CFR 141.85, you are required to provide the lead/copper results to persons served at the sites that were tested. In addition, you must provide them with an explanation of the health effects of lead/copper, list steps consumers can take to reduce exposure to lead/copper in drinking water, and water utility contact information. The notification must also provide the maximum contaminant level goals, the action levels for lead/copper, and the definitions for these two terms.

Notification must be made within 30 days by U.S. Mail, hand/direct delivery, or posting. Please refer to the enclosed Lead/Copper Results Delivery Certification form for delivery method requirements. If the residence is a rental property, both the occupant(s) of the residence and rental property owner must be notified. To assist you in meeting the notification requirements, we have enclosed the results notification letters which must be delivered to the homeowners along with a copy of the fact sheet on lead/copper in drinking water.

The lead/copper sampling site addresses are private data. This information was classified as "nonpublic" by the Minnesota Department of Administration in October 2004, upon the request of Minnesota Department of Health (MDH) and Minnesota community water supply systems. When notifying the persons served at the sites that were tested, provide them with the results for that address only.

Within 10 days after notifying the residents of their results, you must complete the enclosed Lead/Copper Results Delivery Certification form and return it to us. If you chose not to use the results notification letters MDH sent to you and created your own results notification letters, you must submit a copy of one of the letters along with this certification form. The letter you create must contain the same language as the enclosed results notification letters as this is EPA required language. A return envelope is enclosed for your convenience.

Please note that all enclosures are sent to the addressee of this letter. Persons receiving a copy (cc) of the letter do not receive any enclosures. It is the responsibility of the addressee to follow through with the requirements.

A sampling kit will be sent to you prior to your next scheduled sampling date. The enclosed report should be placed in your records and a copy maintained on or near the water supply premises and available for public inspection for not less than ten (10) years.

If you have any questions, please contact me at 651-201-4674, or Anna Schliep at 651-201-4667.

Sincerely,

Pauline Wuoti

Pauline A. Wuoti
Community Public Water Supply Unit
Environmental Health Division
P.O. Box 64975
St. Paul, Minnesota 55164-0975

PAW
Enclosures
cc: Water Superintendent

Minnesota Department of Health
List of Sampling Locations and First Draw
For Lead/Copper Tap Water Monitoring

Sampling Period: 6/1/2020 - 9/30/2020

PWSID: 1310006
Population: 1150
Michael Luhrsen

PWS Name: Coleraine
Samples Received: 10
Samples Required: 10
90th Percentile Lead Level: 2 µg/L
90th Percentile Copper Level: 1350 µg/L **EXCEEDED**

Detect Interim
July 2021
3 WQP Phosphate
CU PE: 08/10/1999
Copper NOE: 11/01/2002

Site No.	Location (Site Address)	Tier No. (1-4)	Plumbing Materials				Sample Results		Collected
			LSL	LP	CP/LS	Other	Lead 15.0 (µg/L)	Copper 1300 (µg/L)	
00014		3			X		< 1	1350	7/27/2020
00020		3			X		2	1940	7/27/2020
00026		3				COPPER	1	158	7/27/2020
00027		3			X		< 1	1190	7/24/2020
00036		3				PLA/CU	< 1	643	7/28/2020
00040		3			X		< 1	1190	7/24/2020
00044		3			X		< 1	425	7/24/2020
00048		1			X		< 1	324	7/27/2020
00051		3			X		2	628	7/28/2020
00056							< 1	163	7/27/2020

8/27/2020
PWSID: 1310006
PWS NAME: Coleraine
SUBJECT: Lead and Copper Results: Action Required-Copper Exceedance

During this round of monitoring lead results were below the lead action level but the copper results continue to be above the copper action level of 1300 ppb.

Required Actions:

- The system will remain on annual monitoring until copper results are below the action level for three consecutive monitoring periods.
- The system will need to evaluate its corrosion control to determine if copper levels can be reduced by modifying the orthophosphate residual levels in the distribution system.
    - The system needs to consider if increasing the orthophosphate residual slightly will improve copper results. MDH suggests an orthophosphate residual **no less than 1 mg/L** , within the target range 1 -2 mg/Lbe maintained reliably and consistently throughout the distribution system. The system needs to use a higher dose because it does not pH adjust its water to optimal corrosion control levels.
    - They system may want to consider using an orthophosphate product for corrosion control rather than a blended orthophosphate product.

Recommended Actions:

- Systems that continue to have copper exceedances after installing corrosion control may be able to take other actions to reduce copper levels such as:
    - Increasing the frequency of system-wide flushing or using unidirectional flushing instead of conventional flushing to better manage biofilm growth and ensure consistent orthophosphate residuals.
    - Conduct well maintenance and cleaning to reduce microbial activity.
    - If ammonia is an issue, them actively managing any ammonia leaving the treatment plant which could contribute to nitrification.
    - Minimizing water age by looping dead ends.
- MDH suggests that the system follow up with residences with high copper levels to conduct repeat testing to verify if flushing for 30 second – 1 minute will reduce copper levels at the tap.

Resources:

1. The EPA Optimal Corrosion Control Treatment Evaluation Technical Recommendation for Primacy Agencies and Public Water Systems is a good resource to consider next steps.https://www.epa.gov/dwreginfo/optimal-corrosion-control-treatment-evaluation-technical-recommendations
2. "Optimization of Phosphorus-Based Corrosion Control Chemicals Using a Comprehensive Perspective of Water Quality." http://www.waterrf.org/Pages/Projects.aspx?PID=4586

Please contact your District Engineer or Anna Schliep at 651-308-3754 with any questions relating to the Lead and Copper Rule and/or corrosion control treatment and treatment optimization, and pre-notify her of any treatment modifications or changes by emailing her at anna.schliep@state.mn.us

Location: Coleraine
PWSID No.: 1310006

Lead and Copper Monitoring Results

Tap Monitoring Results	Lead (15 µg/L) (parts per billion-ppb or µg/L)		Copper (1300 µg/L) (parts per billion-ppb or µg/L)	
	90th Percentile	Range	90th Percentile	Range
Base Monitoring, September 1993	<5	<5 - 11.4	**2016**	175 - 2232
Detect Base, March 1999	2.8	<1 - 4.5	**2480**	490 - 2950
Detect Base, October 1999	<1	<1 - 6.1	**2900**	175 - 3190
Detect Base, September 2002	7	<2 - 10.0	**2390**	103 - 2920
Detect Base*, April 2004	<2.0	<2 - **64.0**	**1430**	154 - 2410
Detect Base*, October 2004	3	<2 - 12.0	813	191 - 1080
Detect Interim, April 2005*	<2.0	<2 - 4.0	1010	141 - 1430
Detect Interim, July 2006*	<2.0	<2 - 3.0	743	86 - 1010
Detect Interim, July 2007*	<2.0	<2 - <2	443	66 - 681
Detect Long Term, July 2010	<1	<1 - <1	1050	144 - 1070
Detect Long Term, July 2013	<1	<1 - <1	995	262 - 1440
Detect Long Term, Aug 2016	2	<1 - 2	**1380**	278 - 1490
Detect Base, April 2017	<1	<1 - 3	1010	278 - 1490
Detect Base November 2017	<2	<2 - <2	**1680**	1 - 1760
Detect Base May-June 2018	<2	<2 - <2	929	72 - 1120
Detect Base November 2018	<1	<1 - 15.4	1170	79 - **1350**
Detect Base April 2019	3	<1 - **19**	1170	90 - 1180
Detect Interim, July 2020	2	<1 - 2	**1350**	158 - **1940**

Location: Coleraine
PWSID No.: 1310006

Distribution System Water Quality Monitoring Results

WQP Monitoring Summaries	pH (Units)		O-Phosphate (mg/L)		T-Phosphate (mg/L)	
	Average	Range	Average	Range	Average	Range
2004 WQP	7.36	7.1 - 7.7	1.12	0.14 - 1.85	1.12	0.17 - 1.82
2005 WQP	7.27	7.1 - 7.4	1.53	0.95 - 2.30	1.54	0.95 - 2.30
2006 WQP	7.23	7.1 - 7.4	1.46	1.14 - 1.88	1.48	1.18 - 1.96
2007 WQP	7.32	7.2 - 7.5	1.5	1.24 - 1.92	1.56	1.31 - 1.98
2008 WQP	7.30	7.2 - 7.4	1.23	0.90 - 1.37	1.28	0.93 - 1.48
2009 WQP	7.27	7.16 - 7.44	1.26	1.11 - 1.38	1.24	1.13 - 1.34
2010 WQP	7.06	6.7 - 7.62	1.8	1.72 - 1.83	1.23	0.45 - 1.86
2011 WQP	6.90	6.7 - 7.06	1.72	1.46 - 1.97	1.70	1.45 - 1.91
2012 WQP	6.78	6.6 - 7.0	**0.84**	0.35 - 1.52	1.18	0.56 - 1.77
2013 WQP	6.82	6.6 - 7.1	**0.88**	0.88	1.81	1.69 - 1.91
2014 WQP	7.21	6.6 - 7.7	**0.63**	0.71 - 1.31	1.49	1.18 - 1.84
2015 WQP	7.44	7.1 - 7.6	**0.65**	0.41 - 0.92	1.05	0.77 - 1.65
2016 WQP	7.43	7.3 - 7.7	**0.79**	0.6 - 0.9	1.24	0.9 - 1.6
2017 WQP	7.36	7.2 - 7.6	1.11	1.0 - 1.45	1.76	1.5 - 2.0
2018 WQP	7.55	7.2 - 7.8	1.04	0.72 - 1.28	1.82	1.51 - 2.10
2019 WQP	7.86	7.6 - 8.2	1.23	1.10 - 1.49	1.94	1.63 - 2.15
2020 WQP (06/2020)	7.89	7.6 - 8.3	1.13	0.75 - 1.81	2.45	1.95 - 3.43

DEPARTMENT OF HEALTH

Copper in Drinking Water

Copper is a metal that occurs naturally and is used to make many products, including parts for plumbing systems. Copper can get into your drinking water as the water passes through your household plumbing system. Your body needs some copper to stay healthy, but too much is harmful.

Health Effects

Eating or drinking too much copper can cause vomiting, diarrhea, stomach cramps, nausea, liver damage, and kidney disease. People with Wilson's disease and some infants (babies under one year old) are extra sensitive to copper. Their bodies are not able to get rid of extra copper easily.

How to Protect Yourself and Your Family

Drinking water with more than 1,300 micrograms of copper per liter of water (µg/L)* can be a health risk for everyone. Infants and people with Wilson's disease may need water with an even lower level of copper to stay safe.

Copper can get into your drinking water as it passes through your plumbing system. Over time, plumbing parts with copper in them usually build up a natural coating that prevents copper from being dissolved into the water. Plumbing systems with copper parts fewer than three years old usually have not had time to build up this protective coating. You can take the steps below to help keep your drinking water safe:

1. **Let the water run** for at least 30-60 seconds before using it for drinking or cooking if the water has not been turned on in over six hours.
2. **Use cold water** for drinking, making food, and making baby formula. Hot water releases more copper from pipes than cold water.
3. **Test your water**. In most cases, letting the water run and using cold water for drinking and cooking should keep copper levels low in your drinking water. If you are still concerned about copper, arrange with a laboratory to test your tap water. Testing your water is important if an infant or someone with Wilson's disease drinks your tap water. Minnesota Department of Health (MDH) recommends using an accredited laboratory (see *Search for Accredited Laboratories).* Contact the laboratory to get sample containers and instructions, or ask your county environmental or public health services if they provide well water testing services.
4. If tests show you have levels of copper over 1,300 µg/L in your drinking water after you let the water run 30-60 seconds, you may want to consider home water treatment (see *Home Water Treatment).*

* 1 microgram per liter (µg/L) = 1 part per billion (ppb)

If you own a private well

Copper is not usually found in the groundwater that feeds your well. Copper may enter your drinking water as it travels through your plumbing system. If your plumbing system has parts made with copper, follow the steps above to help keep your drinking water safe.

If you are on a public water system

The U.S. Environmental Protection Agency (EPA) has an action level of 1,300 µg/L for public water systems serving places where people live, work, go to school, and receive childcare. These systems have to take actions to reduce the amount of copper in the water if more than 10 percent of the water samples they take from homes and sampling sites served by the system have copper levels over 1,300 µg/L.

You can find the level of copper detected in the system serving where you live (called a community water system) by reading the

system's water quality report (also known as a Consumer Confidence Report [CCR]). You can call your public water system to get a paper copy of your CCR, or you may be able to find it online (see *Search for your CCR webpage*).

Remember that your home may have higher levels of copper in drinking water than the homes your public water system tested. Follow the steps above to help keep your drinking water safe.

Noncommunity water systems serving schools, offices, factories, and childcare facilities test for copper; you can contact your noncommunity system to find the level of copper detected in the system. Noncommunity systems serving restaurants, resorts, and campgrounds are not required to test for copper.

Background Information

Copper can get into drinking water if the water moving through the plumbing system is corrosive. Corrosive water can dissolve copper in plumbing parts. Pinhole leaks, pitting in your pipes, or blue green stains on plumbing fixtures may be signs that you have corrosive water. If you see signs of corrosive water, lead may also be in your drinking water (see *Lead in Drinking Water)*. Water with a lot of dissolved copper in it can make drinking water taste or smell bad or give it a blue color.

Copper in Minnesota Water

Although the pH of groundwater in Minnesota is normally high enough to prevent water from dissolving copper, there are other water qualities that may contribute to corrosion. Public water systems monitor how corrosive water is to reduce the risk of lead and copper getting into drinking water. Learn more about copper and lead levels in Minnesota public water systems through *Drinking Water Protection Annual Reports*.

In 1999, Minnesota Pollution Control Agency found that none of the 954 wells they tested in Minnesota had copper levels over the EPA action level (see *Copper, Chromium, Nickel, and Zinc in Minnesota's Ground Water*).

Resources

Copper, Chromium, Nickel and Zinc in Minnesota's Ground Water (PDF) (https://www.pca.state.mn.us/sites/default/files/copper7.pdf)

Drinking Water Protection Annual Reports (https://www.health.state.mn.us/communities/environment/water/dwar.html)

Home Water Treatment (https://www.health.state.mn.us/communities/environment/water/factsheet/hometreatment.html)

Lead in Drinking Water (https://www.health.state.mn.us/communities/environment/water/contaminants/lead.html)

Search for Accredited Laboratories (www.health.state.mn.us/labsearch)

Search for your CCR (https://mnccr.web.health.state.mn.us/index.faces)

Minnesota Department of Health
Environmental Health Division
651-201-4571
www.health.state.mn.us

8/21/2018

To obtain this information in a different format, call: 651-201-4571.

Printed on recycled paper.

DEPARTMENT OF HEALTH

Lead in Drinking Water

Lead is a poisonous metal that can cause long-term health and behavioral problems. The main way to come in contact with lead in Minnesota is through lead-based paint in homes built before 1978. There are also many other ways to come in contact with lead, including through drinking water.

Health Effects

Coming in contact with lead can cause serious health problems for everyone. There is no safe level of lead. Babies, children under six years, and pregnant women are at the highest risk. Coming in contact with too much lead can damage the brain, kidneys, and nervous system. In children, lead can also slow development or cause learning, behavior, and hearing problems.

How to Protect Yourself and Your Family

You may be in contact with lead through paint, water, dust, soil, food, hobbies, or your job. Learn how to reduce your contact with lead from sources other than your drinking water at *Lead Poisoning Prevention: Common Sources*. Lead can get in your drinking water as it passes through your household plumbing system. Here are ways to protect yourself from lead in your drinking water.

1. **Let the water run** for at least 30-60 seconds before using it for drinking or cooking if the water has not been turned on in over six hours. If you have a lead service line, you may need to let the water run longer.
2. **Use cold water** for drinking, making food, and making baby formula. Hot water releases more lead from pipes than cold water.
3. **Test your water**. In most cases, letting the water run and using cold water for drinking and cooking should keep lead levels low in your drinking water. If you are still concerned about lead, arrange with a laboratory to test your tap water. Testing your water is important if young children or pregnant women drink your tap water. Minnesota Department of Health (MDH) recommends using an accredited laboratory (see *Search for Accredited Laboratories*). Contact the laboratory to get sample containers and instructions, or ask your county environmental or public health services if they provide well water testing services.
4. **Treat your water** if a test shows your water has high levels of lead after you let the water run (see *Home Water Treatment).*

If you have a private well

Lead is not usually found in your well water. Lead may enter your drinking water as it travels from your well through your plumbing system. Wells and plumbing systems built before 1995 may have parts that have lead in them. Learn more at *Lead in Well Water Systems*. Make sure you use cold water and let the water run before using it for drinking and cooking. You are responsible for keeping your well water safe and testing it as needed.

If you are on a public water system

All public water systems have to follow standards set by the U.S. Environmental Protection Agency (EPA) for testing for lead and copper. They also follow EPA standards to make sure water does not easily dissolve lead and copper while moving through pipes. You can find the levels of lead and copper detected in the system serving where you live by reading the system's water quality report (also known as a Consumer Confidence Report [CCR]). You can call your public water system to get a paper copy of your CCR, or you may be able to find it online (see *Search for your CCR* webpage). If you want to find the levels of lead and copper places beside your home, contact the water system serving that location.

Lead can get into your drinking water as it passes through your household plumbing system. If you live in a house built before 1986, you may have lead parts in your plumbing system. Make sure you use cold water and let the water run before using it for drinking and cooking. The only way to know how much lead is in your drinking water is to test your water.

Background Information

Lead occurs naturally and has been used in many products around the world. Researchers keep finding more ways that lead is toxic. Levels that were once considered safe are now dealt with as a medical emergency. The EPA continues to research lead to

decide if more actions are needed. For public water systems, a law passed in 1986 restricts how much lead can be used in plumbing parts. In 2014, the 1986 law became stricter. Some plumbing parts still have very small amounts of lead in them. Other parts are now made of materials other than lead; one of those materials is copper. Like lead, copper can also dissolve into water, and too much copper can be bad for you (see *Copper in Drinking Water).*

The EPA has an action level of 15 parts of lead per billion parts of water (ppb) for public water systems. A public water system has to take actions to reduce the amount of lead in the water if more than 10 percent of the water samples have lead levels over 15 ppb. This is an action level; there is no safe level of lead in water.

Lead in Minnesota

The number of people with reported high levels of lead in Minnesota has been decreasing since at least the 1990s. The most common way for Minnesotans to come in contact with lead is through lead-based paint found in homes built before 1978.

In 2014, less than 0.1 percent of Minnesota's public water systems went over EPA's lead action level. There can still be lead in drinking water in Minnesota homes due to when homes were built. Homes built before 1940 may have lead service lines that connect them to public water. Plumbing systems built before 1986 may have lead parts. Learn more about lead levels in Minnesota at *Childhood Lead Exposure*, *Lead Poisoning Prevention*, and *Drinking Water Protection Annual Reports*.

What MDH is Doing

MDH enforces the Safe Drinking Water Act (which has a specific part about lead and copper) and provides guidance on how to reduce lead in drinking water at public schools and childcare services.

The MDH Lead and *Healthy Homes* programs work with state and local partners to find and get rid of lead hazards in homes, retail goods, and other areas.

MDH keeps track of blood lead levels in Minnesota (see *Annual elevated blood lead levels: facts & figures*). MDH also makes sure children and pregnant women who have high blood lead levels get help to reduce lead risks. Through outreach, MDH helps people learn about the risk of lead and how to reduce contact with lead.

Resources

Annual elevated blood lead levels: facts & figures (data.web.health.state.mn.us/lead_annual_level)

Childhood Lead Exposure (data.web.health.state.mn.us/web/mndata/lead)

Common Sources of Lead (www.health.state.mn.us/communities/environment/lead/fs/common.html)

Copper in Drinking Water (www.health.state.mn.us/communities/environment/water/contaminants/copper.html)

Drinking Water Protection Annual Reports (www.health.state.mn.us/communities/environment/water/dwar.html)

Healthy Homes Minnesota (www.health.state.mn.us/communities/environment/healthyhomes/index.html)

Home Water Treatment (www.health.state.mn.us/communities/environment/water/factsheet/hometreatment.html)

Lead Poisoning Prevention: Reports (www.health.state.mn.us/communities/environment/lead/reports.html)

Lead in Well Water Systems (PDF) (www.health.state.mn.us/communities/environment/water/docs/wells/waterquality/lead.pdf)

Reducing Children's Expsoure to Lead in Drinking Water (PDF) (http://www.health.state.mn.us/communities/environment/water/docs/contaminants/lead.pdf)

Reducing Lead in Drinking Water: A Technical Guidance and Model Plan for Minnesota's Public Schools (PDF) (http://www.health.state.mn.us/communities/environment/water/docs/pbschoolguide.pdf)

Search for Accredited Laboratories (http://www.health.state.mn.us/labsearch)

Search for your CCR (mnccr.web.health.state.mn.us/index.faces)

Minnesota Department of Health
Environmental Health Division
651-201-4571
www.health.state.mn.us

08/17/2018

To obtain this information in a different format, call: 651-201-4571. Printed on recycled paper.