City of Pine City
2017 Drinking Water Report

PWSID: 1580008

The City of Pine City is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2017. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources. This report is not being distributed to water customers of the City, but is available on request by contacting City Hall at (320) 629-2575. It is also posted on the City's web page at *http://pinecity.govoffice.com.*

Source of Water: The City of Pine City provides drinking water to its residents from a groundwater source: four wells ranging from 135 to 445 feet deep that draw water from the Quaternary Buried Artesian, Hinckley-Fond Du Lac, and Hinckley Sandstone aquifers.

The Minnesota Department of Health has made a determination as to how vulnerable our systems' source(s) of water may be to future contamination incidents. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-201-4700 or 1-800-818-9318 (and press 5) during normal business hours. Also, you can view it on line at *www.health.state.mn.us/divs/eh/water/swp/swa*.

Call Maury Montbriand at (320) 629-2575 or ldunbar@pinecitygov.com if you have questions about the City of Pine City drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

Results of Monitoring: The results contained in the following table indicate an exceedance of a federal standard. Some other contaminants were detected in trace amounts that were below legal limits. The table that follows shows the contaminants that were detected in trace amounts last year.

Key to abbreviations:

- **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.
- **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.
- **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.
- **AL (Action Level)**: The concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow.
- **EPA**: Environmental Protection Agency
- **pCi/l (Picocuries per liter)**: A measure of radioactivity.
- **ppb (Parts per billion)**: One part per billion in water is like one drop in one billion drops of water, or about one drop in a swimming pool. ppb is the same as micrograms per liter (ug/l).
- **ppm (Parts per million)**: One part per million is like one drop in one million drops of water, or about one cup in a swimming pool. ppm is the same as milligrams per liter (mg/l).
- **Nd**: No Detection
- **N/A** (Not Applicable): Does not apply.
- **NTU (Nephelometric Turbidity Units)**: A measure of the cloudiness of the water (turbidity).
- **Level 1 Assessment**: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **Level 2 Assessment**: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
- **PWSID**: Public water system identification.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
- **Variances and Exemptions**: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Contaminant	EPA'S Limit (MCL)	EPA's Ideal Goal (MCLG)	Highest Average or Highest Single Test Result	Range of Detected Test Results	Violation	Typical Source
Gross Alpha (2016)	15.4 pCi/l	0 pCi/l	6.7 pCi/l	N/A	No	Erosion of natural deposits.
Barium (10/5/16)	2 ppm	2 ppm	0.14 ppm	N/A	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Combined Radium (2016)	5.4 pCi/l	0 pCi/l	4.7 pCi/l	N/A	No	Erosion of natural deposits.
Arsenic (7/31/13)	10.4 ppb	0 ppb	1.04 ppb	N/A	No	Erosion of natural deposits. Runoff from orchards; Runoff from glass and electronics production wastes.

Di (2-ethylhexyl) adipate (2013)	400 ppb	400 ppb	0.64 ppb	N/A	No	Discharge from chemical factories.
Total Haloacetic Acids (HAA)	60 ppb	N/A	48.7 ppb	23 – 52.3 ppb	No	By-product of drinking water disinfection.
Total trihalomethanes (TTHM)	80 ppb	N/A	79.2 ppb	54.5 – 91.6 ppb	No	By-product of drinking water disinfection.
Total Chlorine	4.0 ppm	4.0 ppm	1.28 ppm	0.50 – 2.66 ppm	No	Water additive used to control microbes.

Total HAA refers to HAA5

Total Trihalomethanes (TTHMs): Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Substance	EPA'S Limit (MCL)	EPA'S Ideal Goal (MCLG)	Highest Average or Highest Single Test Result	Range of Detected Test Results	Violation	Typical Source
Fluoride	4.0 ppm	4.0 ppm	0.9 ppm	0.84 – 0.96 ppm	No	Erosion of natural deposits; Water additive to promote strong teeth.

Fluoride: Fluoride is nature's cavity fighter, with small amounts present naturally in many drinking water sources. There is an overwhelming weight of credible, peer-reviewed, scientific evidence that fluoridation reduces tooth decay and cavities in children and adults, even when there is availability of fluoride from other sources, such as fluoride toothpaste and mouth rinses. Since studies show that optimal fluoride levels in drinking water benefit public health, municipal community water systems adjust the level of fluoride in the water to a concentration between 0.5 to 1.5 parts per million (ppm), with an optimal fluoridation goal between 0.7 and 1.2 ppm to protect your teeth. Fluoride levels below 2.0 ppm are not expected to increase the risk of a cosmetic condition known as enamel fluorosis.

Contaminant	EPA'S Action Level	EPA'S Ideal Goal (MCLG)	90% of Results were less THAN	# of homes with High Levels	Violation	Typical Source
Lead (9/28/17)	90% of homes less than 15 ppb	0 ppb	5.2 ppb	1 out of 20	No	Corrosion of household plumbing.
Copper (9/28/17)	90% of homes less than 1.3 ppm	0 ppm	1.66 ppm	3 out of 20	Yes	Corrosion of household plumbing.

★We are in exceedance of the action level for copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor. In response to this issue, we performed a corrosion control study and/or have taken actions to make the water less likely to absorb materials such as copper from your plumbing.

During the year, we failed to take a Total Coliform Bacteria sample during the required testing period(s) of December 2017. Because we did not monitor or failed to monitor completely during the compliance period(s), we did not know whether Total Coliform Bacteria was present in your drinking water, and we are unable to tell you whether your health was at risk during that time.

Total Chlorine: During the year, we failed to take a Total Chlorine Residual sample during the required testing period(s) of December 2017. Because we did not monitor or failed to monitor completely during the compliance period(s), we did not know whether Chlorine was present in your drinking water, and we are unable to tell you whether your health was at risk during that time.

Find your source water assessment at Source Water Assessments (www.health.state.mn.us/divs/eh/water/swp/swa/) or call 651-201-4700 or 1-800-818-9318 during normal business hours.

Compliance with National Primary Drinking Water Regulations:

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, and parasites. Which may come from sewage treatment plants, septic systems, agricultural livestock operations, pets, and wildlife.
Inorganic contaminants, include salts and metals from natural sources (e.g. rock and soil), oil and gas production, mining and farming operations, urban stormwater runoff, and wastewater discharges.
Pesticides and herbicides are chemicals used to reduce or kill unwanted plants and pests. Sources include agriculture, urban stormwater runoff, and commercial and residential properties.
Organic chemical contaminants include synthetic and volatile organic compounds. Sources include industrial processes and petroleum production, gas stations, urban stormwater runoff, and septic systems.
Radioactive contaminants such as radium, thorium, and uranium isotopes come from natural sources (e.g. radon gas from soils and rock), mining operations, and oil and gas production.

Lead in Drinking Water
You may be in contact with lead through paint, water, dust, soil, food, hobbies, or your job. 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. Lead is rarely in a drinking water source, but it can get in your drinking water as it passes through lead service lines and your household plumbing system. Pine City provides high quality drinking water, but it cannot control the plumbing materials used in private buildings. Read below to learn how you can protect yourself from lead in drinking water.

1. **Let the water run** for 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. A service line is the underground pipe that brings water from the main water pipe under the street to your home.
    - You can find out if you have a lead service line by contacting your public water system, or you can check by following the steps at: Are your pipes made of lead? Here's a quick way to find out (https://www.mprnews.org/story/2016/06/24/npr-find-lead-pipes-in-your-home).
    - The only way to know if lead has been reduced by letting it run is to check with a test. If letting the water run does not reduce lead, consider other options to reduce your exposure.
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.
    - Contact a Minnesota Department of Health accredited laboratory to get a sample container and instructions on how to submit a sample:
      Environmental Laboratory Accreditation Program (https://apps.health.state.mn.us/eldo/public/accreditedlabs/labsearch.seam)
      The Minnesota Department of Health can help you understand your test results.
4. **Treat your water** if a test shows your water has high levels of lead after you let the water run.
    - Read about water treatment units:
      Point-of-Use Water Treatment Units for Lead Reduction
      (http://www.health.state.mn.us/divs/eh/water/factsheet/com/poulead.html)

Learn more:

- Visit Lead in Drinking Water (http://www.health.state.mn.us/divs/eh/water/contaminants/lead.html#Protect)
- Visit Basic Information about Lead in Drinking Water (http://www.epa.gov/safewater/lead)
- Call the EPA Safe Drinking Water Hotline at 1-800-426-4791.To learn about how to reduce your contact with lead from sources other than your drinking water, visit Lead Poisoning Prevention: Common Sources (http://www.health.state.mn.us/divs/eh/lead/sources.html).

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. 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 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 1-800-426-4791.

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 at 1-800-426-4791.

Pine City works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.