



2017

CONSUMER CONFIDENCE REPORT

The Delano Municipal Utilities is pleased to issue its Drinking Water Report for 2017.

Each year, the Utility issues a report on the source, treatment and quality of the drinking water in Delano. It is intended to advance the consumer's understanding of drinking water and heighten awareness of the need to protect precious water resources.

The report includes the results of monitoring done on the drinking water for the period from January 1 to December 31, 2017. We are proud to share this information with our customers.

We work with the MN Dept of Health to test drinking water for more than 100 contaminants. It is not unusual to detect contaminants in small amounts. No water supply is ever completely free of contaminants. Drinking water standards protect Minnesotans from substances that may be harmful to their health.

The water system in Delano is owned and operated by the Delano Municipal Utilities. The water system includes the water production wells, wellhouses, water tower, and the network of watermains that provide water to all municipal water service connections in Delano.

Delano Municipal Utilities gets its drinking water from four wells located around the City. The wells pump groundwater from the Quaternary Buried Artesian aquifer. This is the layer of material that overlies the sandstone and shale bedrock in the region. The depths of Delano's wells range from 123 feet to 185 feet. The Minnesota Department of Health has determined that these wells are not particularly susceptible to contamination. From the wellhouses through a system of raw water watermains, to the water treatment plant, where it is filtered through several layers of filtering media that removes virtually all iron and manganese. Chlorine (for disinfection) and fluoride are added to the water. Polyphosphates are also added to reduce red water complaints resulting from iron and manganese remaining in the watermains. The water is then pumped through the network of watermains to the water tower and then to you, the consumer.

In 2001 the Utility constructed a new water tower. The new tower stores up to 1.5 million gallons of water and has improved both water pressure and fire-fighting capacity throughout the City of Delano.

In November 2006 the new water treatment plant went into operation. Softeners will still be needed, since the plant only removes iron and manganese which are the staining components of the water, not the hardness. A fourth production well was drilled in July 2005 and was put into service in November 2006. Both the plant and the well are located just north of the High School.

Questions concerning this drinking water report or the water quality in Delano should be directed to the Utility General Manager, Paul Twite. He can be reached at the Delano Municipal Utilities office at 763-972-0557.

If you are interested in learning more about the Utilities' operation, or in participating in the decision making process, opportunities are available. The Utility holds monthly meetings on the third Monday of each month at 7 P.M. in the council chambers at Delano City Hall. Call 763-972-0557 for more information.

Water Quality Monitoring

Your water is safe.

The water provided to customers may meet drinking water standards, but the Minnesota Department of Health has also made a determination as to how vulnerable the source 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

Results of Monitoring

No contaminants were detected at levels that violated federal drinking water standards. However, 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. (Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for in 2017. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.)

Key to abbreviations:

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

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.

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 as occurred and/or why total coliform bacteria have been found in our water system.

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.

ppb (Parts per billion): One part per billion in water is like one drop in one billion 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 in water is like one drop in one million of water, or about one cup in a swimming pool. ppm is the same as milligrams per liter (mg/l)

Other notes:

NA (Not applicable): Does not apply.

NTU Nephelometric Turbidity Units): A measure of the cloudiness of the water (turbidity).

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

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 (units) [Last Sampled]	EPA's Ideal Goal (MCLG)	EPA's Limit (MCL)	Level Found		Typical Source of Contaminant
			Range (2017)	Average/ Result *	
Arsenic (ppb) (06/27/2013)	0	10.4	N/A	1.43	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium (ppm) (06/27/2013)	2	2	N/A	.17	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	4.0	4.0	0.58 -0.65	0.62	State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Haloacetic Acids (HAA5) (ppb)	0	60	N/A	8.6	By-product of drinking water disinfection. (Total HAA refers to HAA5)
TTHM (ppb)	0	80	N/A	15.3	By-product of drinking water disinfection. (Total trihalomethanes)

* This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is an average, it may contain sampling results from the previous year.

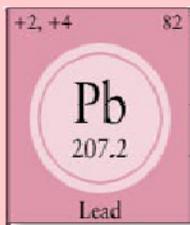
Contaminant (units)	MRDLG	MRDL	Highest and Lowest Monthly Average.	Highest Quarterly Average.	Typical Source of Contaminant
Chlorine (ppm)	4	4	.21-1.51	.78	Water additive used to control microbes.

Contaminant (units)	MCLG	AL	90% Level	# sites over AL	Typical Source of Contaminant
Copper (ppm) (07/28/2015)	0	1.3	.9	0 out of 20	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb) (07/28/2015)	0	15	.8	0 out of 20	Corrosion of household plumbing systems; Erosion of natural deposits.

We work with the MN Dept of Health to test drinking water for more than 100 contaminants. It is not unusual to detect contaminants in small amounts. No water supply is ever completely free of contaminants. Drinking water standards protect Minnesotans from substances that may be harmful to their health. Monitoring may have been done for additional contaminants that do not have MCLs established for them and are not required to be monitored under the Safe Drinking Water Act. Results may be available by calling 651-201-4700 or 1-800-818-9318 during normal business hours.

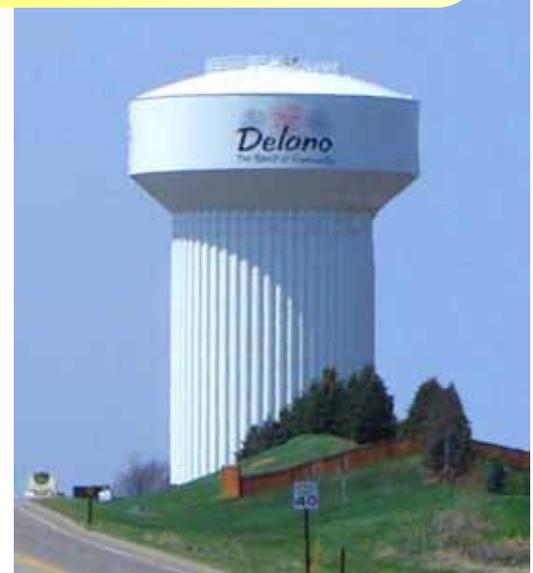
During the year, we failed to take a Total Chlorine Residual sample during the required testing period of August 2017. Because we did not monitor or failed to monitor completely during the compliance period, we did not know whether Chlorine was present in your drinking water, and we are unable to tell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

Minnesota's primary drinking water sources are groundwater and surface water. Groundwater is the water found in aquifers beneath the surface of the land. Groundwater supplies 75 percent of Minnesota's drinking water. Surface water is the water in lakes, rivers, and streams above the surface of the land. Surface water supplies 25 percent of Minnesota's drinking water.



Lead: If present, 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. Delano Municipal Utilities is 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. Use cold water for drinking, making food, and making baby formula. Hot water releases more lead from pipes than cold water. 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 <http://www.epa.gov/safewater/lead>.



Compliance with National Primary Drinking Water Regulations

If your drinking water fluoride levels are below the optimal concentration range of 0.7 to 1.2 ppm, please talk with your dentist about how you can protect your teeth and your family teeth from tooth decay and cavities. 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 water to a concentration between 0.5 and 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. For more info, visit MDH Drinking Water Fluoride at www.health.state.mn.us/divs/eh/water/com/fluoride/index.html

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 stormwater 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 stormwater 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 stormwater 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, 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.

For more information, visit the Minnesota Department of Health's website

Basic of Monitoring and Testing of Drinking Water in Minnesota

at the following website

www.health.state.mn.us/divs/eh/water/factsheet/com/sampling.html

