City of Preston

2007 Drinking Water Report

The City of Preston is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2007. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

A copy of this report is available at your request. You can stop at the Preston Public Utility Office, 210 Fillmore St. W., Preston, MN 55965 to pick up your copy. This report is also made available on our website: preston@prestonmn.org.

Call 507-765-2491 if you have questions about the City of Preston drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

Source of Water

The City of Preston provides drinking water to its residents from a groundwater source: three wells ranging from 252 to 417 feet deep, that draw water from the Jordan aquifer.
Firm capacity is 275 gpm or 396,000 gpd, which meets "Ten State" and "Water Works Operations" standards. Total capacity of the three wells is 1250 gpm or 1.8 million gpd

Well # 1 is located in the treatment plant building, at the intersection of Ridge Road and Cottage Grove Avenue. It was constructed in 1957. The total depth of this well is 350 feet, which a 10 inch inner casing extending to a depth of 267 feet. The output of sand free water is currently about 325 gpm.

Well # 2 is located in the treatment plant building near the intersection of Franklin and Kansas Streets. It was constructed in 1951. The total depth of Well # 2 is 252 feet, with an inner 16-inch casing extending to 220 feet. This well is currently producing 275 gpm.

Well # 3 is located in the treatment plant building located in the industrial park south of the Ethanol Plant. It was constructed in 1999. The total Depth of Well # 3 is 417 feet, with an inner casing extending 330 feet. This well is currently producing 650 gpm.

These wells are equipped with a vertical line-shaft pump. Currently the wells are operated as a lead pump and lag pump rotation. Normally they are rotated on a weekly basis so both wells share about the same amount of water pumped.

According to the records that were available, it appears water levels have not changed very much since 1973. Well # 1 is a flowing well and changes very little. When Dairy's well is operating it does change the static water level in this well. Well # 2 varies from 6 feet to 28 feet over this 20 year time period. Well # 3 static water level is 108 ft. below ground level.

The essentially stable population outlook for Preston means that construction of new well capacity will probably be required only if it becomes necessary to replace one of the existing wells. These wells should continue to perform satisfactorily well into the future.

Well # 1, with a capacity of 325 gpm, could supply peak day flow to a population equivalent of over, 2,500 at Preston's per capita water usage rate. Well # 2, with a capacity of 275 gpm, can supply peak day flow to the existing population and thus serves as a backup to Well # 1. However, if population were to grow substantially in the next 20 years, Well # 2 would no longer be able to supply peak day flow, and this backup capacity would be impaired. Well # 3 has a capacity of 650 gpm.

Preston's existing water storage facilities have adequate capacity to serve current domestic needs and any conceivable future domestic needs within the next 20 years. Although the existing reservoirs have sufficient volume to serve considerable additional residential development, they are unable to serve potential development in areas on the north and south sides of the City due to their elevation. The existing reservoirs are situated too low to provide proper pressure to these areas. These areas, which we call "high level service areas," would have to be served either by new gravity reservoirs or by booster pumping stations and hydro pneumatic tanks. A small area at the south end of the system is at an elevation too high to be served by the ground reservoirs. A booster pump station containing two 60-gpm pumps, a 300 gpm pump, and a 1000 gallon hydro pneumatic tank serves this area. The hydro pneumatic tank provides a very limited amount of storage and serves to maintain more uniform water pressure. The capacity of this booster station and hydro pneumatic tank is insufficient to provide fir flows to the area served.

Call 507-765-2491 if you have any questions about the City of Preston drinking water or would like information about opportunities for public participation in decisions that may affect the quality of water.

The Minnesota Department of Health has determined that the source(s) used to supply your drinking water is not particularly susceptible to contamination. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-215-0800 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 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 2007. 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:
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.

MRDLG- Maximum Residual Disinfectant Level Goal.

AL--Action Level: The concentration of a contaminant, which, if exceeded, triggers treatment, or other requirement, which a water system must follow.

90th Percentile Level- This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10 percent of the samples.) Note: In situations in which only 5 samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

pCi/l—PicoCuries per liter (a measure of radioactivity).

ppb—Parts per billion, which can also be expressed as micrograms per liter (ug/l).

ppm—Parts per million, which can also be expressed as milligrams per liter (mg/l).

nd- No Detection

N/A—Not Applicable (does not apply)

Contaminants (units)	MCLG	MCL	Level Found		Typical Source of Containment
			Range (2006)	Average /Result*	
Fluoride (ppm)	4	4	1-1.7	1.45	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.
TTHM (total trihalomethanes) (ppb) (09/20/2005)	0	80	N/A	1.8	By-product of drinking water disinfection.

Contaminant (units)	Level Found		Typical Source of Contaminant
	Range (2004)	Average/ Result*	
Radon (pCi/l) (10/20/2003)	N/A	1040	Erosion of natural deposits

*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.

Radon is a radioactive gas, which is naturally occurring in some groundwater. It poses a lung cancer risk when gas is released from water into air (as occurs during showering, bathing, or washing dishes or clothes) and a stomach cancer risk when it is ingested. Because radon in indoor air poses a much greater health risk than radon in drinking water, an Alternative Maximum Contaminant Level (AMCL) of 4,000 Pico Curies per liter may apply in states that have adopted an Indoor Air Program, which compels citizens, homeowners, schools, and communities to reduce the radon threat from indoor air. For states without such a program, the Maximum Containment Level (MCL) of 300 pCi/l may apply. Minnesota plans to adopt an Indoor Air Program once the Radon Rule is finalized.

Contaminant (units)	MRDLG	MRDL	****	****	Typical Source of Contaminant
Chlorine (ppm)	4	4	.2-.9	.68	Water additive used to control microbes.

**** Highest and Lowest Monthly Average.
***** Highest Quarterly Average.

Contaminant (units)	MCLG	AL	90% Level	# sites over AL	Typical Source of Contaminant
Copper(ppm) (06/28/2005)	NA	1.3	.33	0 out of 10	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb) (06/28/2005)	NA	15	nd	1 out of 10	Corrosion of household plumbing systems; Erosion of natural deposits.

If presented, elevated levels of lead can cause serious health problems, especially for pregnant women and children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Preston is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When you 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 Safe Drinking water Hotline or at http://www.epa.gov/safewater/lead.

Some contaminants do not have Maximum Contaminant Levels established for them. These unregulated contaminants are assessed using state standards known as health risk limits to determine if they pose a threat to human health. If unacceptable levels of an unregulated contaminant are found, the response is the same if an MCL has been exceeded; the water system

must inform its customers and take other corrective actions. In the table that follows are the unregulated contaminants that were detected:

Contaminants (units)	Level Found		Typical Source of Contaminant
	Range (2007)	Average/Result	
Sodium (ppm) (12/18/06)	NA	2.7	Erosion of natural deposits.
Sulfate (ppm) (12/18/06)	NA	23.9	Erosion of natural deposits.

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, 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 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 lesson the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at 800-426-4791.