

2009 Consumer Confidence Report- Eureka-Maple Avenue Wellfield

Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Local Water vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791). Health Effects Statements: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a short period 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. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Where does my water come from?

The main supply for the Eureka/Maple Avenue Wellfield System is two gravel packed wells in the Maple Avenue Wellfield. These two wells supply the majority of the water to the system. The Eureka Filtration Plant is on standby, and is only used during emergencies. This system serves approximately 7000 customers through 32.7 miles of water mains, in the downtown and western side of town. In 2008 the Maple Avenue Wells produced 235,570,000 gallons, for a daily average of 645,000 gallons. The Eureka plant is exercised weekly so that it is ready to produce water in an emergency. Water from the Maple Avenue Wells is treated with liquid chlorine for disinfection, and a blended phosphate is added for corrosion control and sequestering purposes. The Eureka Filtration Plant is a package type plant which uses the conventional treatment processes, which include coagulation, flocculation, sedimentation and filtration through two rapid sand filters. Polyaluminium Chloride is used for coagulation, liquid chlorine is used for disinfection and a blended phosphate is used for corrosion control and sequestering purposes. In 2008 improvements to the system include upgrades to alarm systems and the replacement of aging hydrants.

Source water assessment and its availability

A Source Water Assessment of the Maple Avenue Wellfield and the Eureka/Mountain Pond sources was recently conducted by the Department of Public Health's Drinking Water Division. The updated assessment report can be found on the DPH's website:

<http://www.dph.state.us/BRS/Water/SourceProtection/Assessment/Assessments.html>. The assessments found that these drinking water sources have a LOW susceptibility to potential sources of contamination. Additional source water assessment information can be found at the EPA'S website: www.epa.gov/safewater/protect/swap.html.

Why are there contaminants in my drinking water?

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 (EPA) Safe Drinking Water Hotline (800-426-4791).

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: microbial contaminants, such as viruses and bacteria, that 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; and 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

Public Utility Commission meetings are generally held on the first Monday of each month, in Meeting Room A, at the Municipal Center. Water related issues can be addressed at this time. The current Utility Commissioners are: Matthew Knickerbocker, Richard Straiton, Paul Szatkowski, Michael Gribbin and Peter Valenti. Current Utility Department employees include: Kelly Curtis, Water Superintendent, Edward Knapp, Chief Plant Operator, Chris Hall, Richard Benzing, Norman Cook and Chris McCollam, all Water and Sewer Maintainers.

Other Information

Source Water Protection: Source Water is untreated water from lakes, rivers, streams or

underground aquifers that is used to provide drinking water. Preventing drinking water contamination at the source makes good public health sense, good economic sense and good environmental sense. You can be aware of the challenges of keeping drinking water safe and take an active role in protecting drinking water. There are many ways that you can get involved in drinking water protection activities to protect the contamination of the ground water source. Dispose properly of household chemicals, help clean up the watershed that is the source of your community's water, and attend public meetings to ensure that the community's need for safe drinking water is considered in making decisions about land use. Contact us at the Bethel Utility Department, at 203-794-8549 for more information on source water protection, or contact the Environmental Protection Agency at 1-800-426-4791. You may also find information on the EPA's website at www.epa.gov/safewater/protect.html.

Additional Information for Lead

If 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. Bethel Utility Department 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. 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>.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfectant By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl ₂) (ppm)	4	4	1.95	0.79	1.95	2009	No	Water additive used to control microbes
TTHMs [Total Trihalomethanes] (ppb)	NA	80	69.4	6.4	217.1	2009	No	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	NA	60	20.8	ND	85.6	2009	No	By-product of drinking water chlorination
Inorganic Contaminants								

Barium (ppm)	2	2	0.029	NA		2008	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper - source water (ppm)		0.015	0.015(MPL)	NA		2008	No	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10	10	2	NA		2009	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)		28	20.6	NA		2008	No	Erosion of natural deposits; Leaching
Microbiological Contaminants								
Turbidity (NTU)	NA	5	0.15	NA		2009	No	Soil runoff
Total Coliform (% positive samples/month)	0	5	0	NA		2009	No	Naturally present in the environment
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	3.57	NA		2006	No	Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	0	5	1.83	NA		2006	No	Erosion of natural deposits
Uranium (ug/L)	0	30	0.87	NA		2006	No	Erosion of natural deposits
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)	1.3	1.3	0.3	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead - action level at consumer taps (ppb)	0	15	1	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Undetected Contaminants

The following contaminants were monitored for, but not detected, in your water.

Contaminants	MCLG or MRDLG	MCL or MRDL	Your Water	Violation	Typical Source
Fluoride (ppm)	4	4	ND	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrite [measured as Nitrogen] (ppm)	1	1	ND	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Unit Descriptions	
Term	Definition
ug/L	ug/L : Number of micrograms of substance in one liter of water
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	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	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection 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.
MRDL	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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

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