

City of Bayfield Utility

2009 Annual Drinking Water Quality Report

Water System Information

If you would like to know more about the information contained in this report, please contact Don Thomas at (715) 779-5731. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. The meetings are usually the first or second Monday of every month at City Hall at 5 p.m. A monthly calendar is also posted on our website at www.cityofbayfield.com where you can find a complete listing of meetings and other community events including this report.

Health Information

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 (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 systems 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 Environmental Protection Agency's safe drinking water hotline (800-426-4791).

Source(s) of Water

Source id	Source	Depth (in feet)	Status
3	Groundwater	732	Active
4	Groundwater		Active

To obtain a summary of the source water assessment please contact Don Thomas at (715) 779-5731.

Educational Information

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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Number of Contaminants Required to be Tested

This table displays the number of contaminants that were required to be tested in the last five years. The CCR may contain up to five years worth of water quality results. If a water system tests annually, or more frequently, the results from the most recent year are shown on the CCR. If testing is done less frequently, the results shown on the CCR are from the past five years.

Contaminant Group	# of Contaminants
Disinfection Byproducts	2
Inorganic Contaminants	16
Microbiological Contaminants	2
Radioactive Contaminants	3
Synthetic Organic Contaminants including Pesticides and Herbicides	23
Unregulated Contaminants	4
Volatile Organic Contaminants	20

Microbiological Contaminants

Contaminant	MCL	MCLG	Count of Positives	Sample Date (if prior to 2009)	Violation	Typical Source of Contaminant
Coliform (TCR)	presence of coliform bacteria in $\geq 5\%$ of monthly samples	0	4		YES	Naturally present in the environment

Disinfection Byproducts

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2009)	Violation	Typical Source of Contaminant
TTHM (ppb)	80	0	.3	.3		NO	By-product of drinking water chlorination

Inorganic Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2009)	Violation	Typical Source of Contaminant
ARSENIC (ppb)	10	n/a	1	nd- 1	03/04/2008	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
BARIUM (ppm)	2	2	.062	.027-.062	03/04/2008	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CHROMIUM (ppb)	100	100	3	2- 3	03/04/2008	NO	Discharge from steel and pulp mills; Erosion of natural deposits
COPPER (ppm)	AL=1.3	1.3	.1300	0 of 10 results were above the action level.	01/22/2008	NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
FLUORIDE (ppm)	4	4	.1	.1- .1	03/04/2008	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
LEAD (ppb)	AL=15	0	4.80	0 of 10 results were above the action level.	01/22/2008	NO	Corrosion of household plumbing systems; Erosion of natural deposits

NICKEL (ppb)	100		.5800	nd- .5800	03/04/2008	NO	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
NITRATE (N03-N) (ppm)	10	10	1.50	.98- 1.50		NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SODIUM (ppm)	n/a	n/a	2.00	1.90- 2.00	03/04/2008	NO	n/a

Radioactive Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2009)	Violation	Typical Source of Contaminant
GROSS ALPHA, EXCL. R & U (pCi/l)	15	0	4.8	2.2- 4.8		NO	Erosion of natural deposits
GROSS ALPHA, INCL. R & U (n/a)	n/a	n/a	4.8	2.2- 4.8		NO	Erosion of natural deposits
RADIUM, (226 + 228) (pCi/l)	5	0	2.2	1.3- 2.2		NO	Erosion of natural deposits

Unregulated Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2009)	Violation	Typical Source of Contaminant
BROMODICHLOROMETHANE (ppb)	n/a	n/a	.14	.14		NO	n/a
DIBROMOCHLOROMETHANE (ppb)	n/a	n/a	.17	.17		NO	n/a
TRICHLOROFLUOROMETHANE (ppb)	n/a	n/a	.23	.23		NO	n/a

Health effects for any contaminants with MCL violations

Contaminant	Health Effects
Coliform (TCR)	Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Definition of Terms

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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.
MFL	million fibers per liter
mrem/year	millirems per year (a measure of radiation absorbed by the body)
NTU	Nephelometric Turbidity Units
pCi/l	picocuries per liter (a measure of radioactivity)
ppm	parts per million, or milligrams per liter (mg/l)
ppb	parts per billion, or micrograms per liter (ug/l)
ppt	parts per trillion, or nanograms per liter
ppq	parts per quadrillion, or picograms per liter
TCR	Total Coliform Rule
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.