

# 2016 Consumer Confidence Report Data FALL CREEK WATERWORKS, PWS ID: 61802961

## Water System Information

If you would like to know more about the information contained in this report, please contact Bryan Kaatz at (715) 877-2177.

**The Village of Fall Creek mailed a Special Nitrate Notice out the residents back in September 2016 due to elevated nitrate levels in Well 2. A copy of the letter is at the bottom of the CCR. The Village's Well 2 is for emergency purposes only. The Village is currently operating off of Well 1 for its main water supply.**

Opportunity for input on decisions affecting your water quality

The Village Board meeting is the second Monday of every month. The meetings begin at 6:30 PM and are located in the Board Room at the Village Hall. The Village Hall is located at: 122 E. Lincoln Avenue Fall Creek WI 54742.

## 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
1	Groundwater	116	Active

Source ID	Source	Depth (in feet)	Status
2	Groundwater	100	Active

To obtain a summary of the source water assessment please contact, Bryan Kaatz at (715) 877-2177.

## 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.

## Definitions

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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 or why total coliform bacteria have been found in our water system, or

<b>Term</b>	<b>Definition</b>
	both, on multiple occasions.
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
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.
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.

## Detected Contaminants

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the tables below along with the sample date.

## Disinfection Byproducts

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2016)	Violation	Typical Source of Contaminant
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Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2016)	Violation	Typical Source of Contaminant
HAA5 (ppb)	D-19	60	60	34	34		No	By-product of drinking water chlorination
TTHM (ppb)	D-19	80	0	7.5	7.5		No	By-product of drinking water chlorination

### Inorganic Contaminants

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2016)	Violation	Typical Source of Contaminant
ARSENIC (ppb)		10	n/a	0	0 - 0	4/8/2014	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
BARIUM (ppm)		2	2	0.084	0.021 - 0.084	4/8/2014	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CHROMIUM (ppb)		100	100	8	0 - 8	4/8/2014	No	Discharge from steel and pulp mills; Erosion of natural deposits
FLUORIDE (ppm)		4	4	0.1	0.0 - 0.1	4/8/2014	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
MERCURY (ppb)		2	2	0.3	0.2 - 0.3	4/8/2014	No	Erosion of natural deposits; Discharge from refineries and

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2016)	Violation	Typical Source of Contaminant
								factories; Runoff from landfills; Runoff from cropland
NICKEL (ppb)		100		10.7000	0.0000 - 10.7000	4/8/2014	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	7.00	4.70 - 7.70		No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SELENIUM (ppb)		50	50	1	0 - 1	4/8/2014	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
SODIUM (ppm)		n/a	n/a	32.20	24.80 - 32.20	4/8/2014	No	n/a

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior to 2016)	Violation	Typical Source of Contaminant
COPPER (ppm)	AL=1.3	1.3	0.2140	0 of 10 results were above the action level.	7/16/2014	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior to 2016)	Violation	Typical Source of Contaminant
							preservatives
LEAD (ppb)	AL=15	0	1.88	0 of 10 results were above the action level.	7/16/2014	No	Corrosion of household plumbing systems; Erosion of natural deposits

### Radioactive Contaminants

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2016)	Violation	Typical Source of Contaminant
GROSS ALPHA, EXCL. R & U (pCi/l)		15	0	4.2	2.1 - 4.2	4/8/2014	No	Erosion of natural deposits
RADIUM, (226 + 228) (pCi/l)		5	0	2.5	0.6 - 2.5	4/8/2014	No	Erosion of natural deposits
GROSS ALPHA, INCL. R & U (n/a)		n/a	n/a	4.2	2.1 - 4.2	4/8/2014	No	Erosion of natural deposits

### Additional Health Information

**Nitrate** in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

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. Fall Creek Waterworks 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

# Village of Fall Creek

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## DRINKING WATER ADVISORY

Date:

9/15/2016

**The Fall Creek Drinking Water System recently measured elevated nitrate levels for a small portion of water entering the water system from Well #2. Nitrate above 10 mg/L in drinking water is a serious health concern for infants under six months old and for females who are or may become pregnant. The Village Board takes seriously its responsibility to provide you with safe drinking water and has voluntarily removed Well #2 from regular service. It will only be used during a water emergency.**

**This advisory is to inform you of the issue and the steps we are taking to address this matter.**

**Good news:** All WDNR required testing of the Village water system has been in compliance with State and Federal Safe Drinking Water regulations, including nitrate levels.

**Unfortunate news:** Even though the nitrate level has been in compliance, the level has been increasing over the past several years at Well #2. This is a concern because if the level exceeds the State and Federal "standard" or Maximum Contaminant Level (MCL) of 10.0 mg/L for nitrate, it would pose a threat to infants under 6 months old and females who are or may become pregnant.

**Good news:** The WDNR & the Wisconsin Rural Water Association (WRWA) have been very helpful by offering assistance to the Village. Because this situation has been seen in other rural communities, they approached us requesting we participate in a study to research solutions. Any information gained would potentially benefit us, as well as benefit other communities. The Village agreed to be part of the study. Hence, in conjunction with the WDNR, more frequent, investigative testing has been performed at Well #2.

**Unfortunate news:** Recent testing of Well #2 has shown there are occasional, brief periods when the nitrate concentrations are above the 10.0 mg/L MCL, but no higher than 12.1 mg/L. If the well, as is, would remain in service it would be possible that water with nitrate concentrations slightly above the standard could be delivered to customers, more likely on the south side of the village closer to Well #2.

**Good news:** The Village Board takes seriously its responsibility to provide you with safe drinking water. For that reason, they have voluntarily removed Well #2 from regular service and it will only be used during a water emergency, such as for fire-fighting, or when Well #1 is out of service.

**Good news:**

- The extra testing provided us with more information than we would have had. We were able to detect the situation in Well #2 earlier than we may have with routine testing.
- The elevated nitrate level is limited. The data shows that these peak concentrations are only sustained for the first 5-10 minutes of pumping at Well #2.
- The nitrate concentrations in Well #1 are well below the MCL.
- The Village of Fall Creek is working with the WDNR to address the situation. Modifications to Well #2 or a replacement well are being studied.

**Nitrate in drinking water is a serious health concern for infants less than six months old and for females who are or may become pregnant.**

**Since an emergency condition or problems with Well #1 cannot be predicted, there may be occasions in the future when Well #2 must be used and some high nitrate water is distributed.**

**If you are or may become pregnant or have an infant younger than 6 months old or have other health concerns, you may wish to avoid drinking the water and consult your doctor.**

**Additional Information:** Water with a nitrate level above 10 mg/L should not be given to infants under 6 months old or used to make infant formula. Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and if not treated, could be fatal. Symptoms include shortness of breath and blue baby syndrome. Blue baby syndrome is indicated by bluish-grey skin color. Symptoms develop rapidly, with health deteriorating over several days. If these symptoms occur, seek medical attention immediately. Females who are or may become pregnant should not consume water with nitrate concentrations above the standard. (Consumption involves drinking the water or eating foods prepared with the water, such



as soups, juices, and coffee.) There is some evidence of an association between exposure to high nitrate levels in drinking water during the first weeks of pregnancy and certain birth defects. People of all ages are urged to avoid long-term consumption of high nitrate water because it is linked to some chronic diseases, according to the Wisconsin Department of Health Services.

**Link for more information:** If you desire more information, the following report on nitrate occurrence in Wisconsin sources of drinking water is provided by WDNR and the Wisconsin Groundwater Coordination Council:

<http://dnr.wi.gov/topic/Groundwater/documents/GCC/gwQuality/Nitrate.pdf>

**Who can I contact if I have questions?**

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