

2019 Consumer Confidence Report

Deerfield Water System
1049 Deerfield Way
Lafollette, TN 37766

PWSID#: TN0000912
County: Campbell
(423) 562-7258

June 29, 2021



*Technical Assistance provided to Graysville Water Works at no cost
through a technical assistance cooperative agreement with the
United States Environmental Protection Agency
by: Benjamin Fincher*

COMMUNITIES
Unlimited

Rural Community Assistance Program



Deerfield Resort Water System CCR 2019

Annual Water Quality Report 2019

In order to ensure that tap water is safe to drink, EPA and the Tennessee Department of Environment and Conservation prescribe regulations which 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.

The Source of Your Water

Deerfield Resort Water System is served by eight (8) wells that have been declared true ground water. The only treatment required is disinfection. There is approximately 18 miles of line, with 465 connections.

Wellhead Protection

Water is supplied to the system by underground wells, each individual must practice due diligence in protecting the water source from contamination by refraining from using any liquids, paints, chemicals, etc. within a 750 ft. radius of the well. If you see any questionable materials within this area, please report immediately.

Contaminants in Your Water

Drinking water, including bottled water, may reasonably be expected to contain at least a small amount of contaminants. The presence of contaminants does not indicate that the drinking water possesses a risk for health. For more information, call the EPA's Safe Drinking Water Hotline at (800) 426-4791.

The Sources of drinking water (both tap and bottled water) include surface sources and wells. As water travels through the surface of the land or through the ground, it dissolves naturally occurring mineral, and in some cases, radioactive materials, and pick up substances resulting from animals or from human activity.

Microbial Contaminants

Microbial contaminants are organisms such as viruses and bacterial, which may come from sewage treatment plants, septic systems, agricultural livestock, operations and wildlife. Inorganic contaminants, such as salt and metals, can be naturally occurring or result from urban storm runoff, industrial and domestic discharges, oil and gas production, mining, and farming.

Pesticides and Herbicides

Pesticides and herbicides may come from a variety of sources, such as agriculture, urban storm runoff, and residential use.

Organic Chemical Contaminants

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban runoff, and septic systems.

Radioactive Contaminants

Radioactive Contaminants can be naturally occurring or be the result of oil and gas productions and mining activities.

Water Quality Data

What does this chart mean?

- MCLG - Maximum Contaminant Level Goal, or 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, or 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. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.
- MRDL: Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the 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.
- AL - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- Below Detection Level (BDL) - laboratory analysis indicates that the contaminant is not present at a level that can be detected.
- Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present.
- Parts per million (ppm) or Milligrams per liter (mg/l) - explained as a relation to time and money as one part per million corresponds to one minute in two years or a single penny in \$10,000.
- Parts per billion (ppb) or Micrograms per liter - explained as a relation to time and money as one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
- Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
- Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- RTCR - Revised Total Coliform Rule. This rule went into effect on April 1, 2016 and replaces the MCL for total coliform with a Treatment Technique Trigger for a system assessment.
- TT - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

Contaminant	Violation Y/N	Level Found	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria RTCR	NO	0				0	0	Naturally present in the environment
Ecoli Bacteria	NO	0				0	0	Human or animal waste
Gross Alpha	NO	0.78	0.356-1.21	12-13-2019	PCi/1	0	15	Erosion of natural deposits
Lead**	YES	0.001085	ND-0.00184	2/27/2019 & 11/15/2019	ppm	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Copper**	YES	0.062931	0.000857-0.403	2/27/2019 & 11/15/2019	ppm	1.3	AL=1.3	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	NO	9.3	3.8-9.3	12/13/2019	ppm	10	10	Runoff from fertilizer use, leaching from septic tanks, sewage; erosion of natural deposits
THHM Total Trihalomethanes	NO	<0.0005		9/18/2019	ppm	0.0005	80	By-product of drinking water chlorination
HAA5 Haloacetic Acids	NO	<0.002		9/27/2019	ppm	0.002	60	By-product of drinking water chlorination
Chlorine	NO	1.2	0.9-1.6		ppm	4	4	Water additive to control microbes
Sodium	NO	1.66	1.5-1.66	12/13/2019	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment

*.Analysis is based on all 8 active wells in 2019

**Monitoring Violation- See Public Notice at the end of this document for further explanation

Health Effects

Microbiological Contaminants:

Total Coliform. Coliforms are bacteria that 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.

Fecal coliform/E.Coli. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

Lead. 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.

Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount 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.

Nitrite. Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and 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.

TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

HAA [Haloacetic Acids]. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Deerfield Resort Water System Public Notice

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Deerfield Resort Water System

Our water system violated drinking water requirements over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we are doing to correct these situations.

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2020, we did not complete all monitoring or testing for the contaminants listed below and therefore cannot be sure of the quality of your drinking water during that time.**

What should I do?

There is nothing to do at this time.

The table below lists the contaminant we did not properly test for during the last year, how often we are supposed to sample for, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be taken).

Contaminant	Required Sampling Frequency	Number of Samples Taken	When Samples Should Have Been Taken	When Samples Were Taken
Lead and Copper	Twenty (20) samples for two consecutive monitoring periods	Eight (8) for first monitoring period & twenty (20) for second monitoring period	Due between January 1, 2019 – June 30, 2019 & again during July 1, 2019 – December 31, 2019	2/17/2019 & 11/15/2019

*Water Quality Parameters (WQPs) – Due to failing to monitor Lead & Copper sampling for 2018, Deerfield Resort Water System must collect a pair (2) of WQP samples every two weeks from each entry point to the distribution system and a pair (2) of WQP samples every two weeks from five (5) sites within the distribution system. Testing is to be for pH, alkalinity, calcium, conductivity and temperature. This sampling is to be conducted monthly until December 31, 2019 in order to allow the state study the behavior of the water throughout the distribution system during seasonal variation.

Deerfield Resort Water System did supply partial sampling, but due to the water system not conducting sampling during the entire required period, the WQP will need to start over and will be required for the duration of 2020, with the same guidelines as listed above.

What is being done?

Deerfield Resort Water System has enlisted the assistance of Communities Unlimited to help us get back on track with all the required testing, and to get our records in order. We are setting up a sampling schedule so that we can better complete with the time frame for all testing.

For more information, please contact Scott Fields at (423) 592-4222 or email at deersfields@gmail.com or Dale Baker at (423) 494-2086 or email at tristarinspectionstn@gmail.com

*Please share this information with all who drink this water, especially those who may not have received this notice directly

This notice is being sent to you by Deerfield Resort Water System. State Water System ID: TN-0000912.

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COMMUNITIES Unlimited

Rural Community Assistance Program

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