

BERLIN MUNICIPAL WATER QUALITY REPORT



**Berlin Municipal
Water System
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January – December 2017

The purpose of this report is to satisfy the EPA and DEC requirements for Consumer Confidence Reporting. Although some of the items may not be of interest to you personally, we feel that this is an important aspect of our overall commitment to supply you with the safest quality drinking water possible.

Terms to Become Familiar With:

Maximum Contaminant Level (MCL): This is the highest allowable level of contaminant in drinking water. MCLs are set as close to MCLGs as feasible using the best available technology.

Maximum Contaminant Level Goals (MCLGs): These goals are set at levels that are below where there is no known health risk. MCLGs are considered a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. Addition of a disinfectant may help control microbial contaminants.

Maximum Residual Disinfection Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. **MRDLG's** do not reflect the benefits of disinfectants in controlling microbial contaminants.

Running Annual Average (RAA): The average of 4 consecutive quarters (when on quarterly monitoring); values in table represent the highest RAA for the year.

Locational Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during four consecutive calendar quarters.

PPM: Parts per million or mg/L. **PPB:** Parts per billion. **pCi/L:** Pico curies per liter.

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

90th Percentile: Ninety percent of the samples are below the action level. (Nine of ten sites' samples were at or below this level.)

Health Information Regarding Drinking Water:

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 lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline.

Berlin Municipal Water System is classified and permitted as a groundwater, non-purchased water system, operating under water system identification #21202.

Water is supplied for the Berlin Municipal Water System by approved ground water sources, Well A, Well C, and Well D.

Simon Operation Services, Inc. Your Water Professionals

Simon Operation Services, Inc. (SOS) became responsible for the operation of the system in December 2015. SOS's staff includes these certified operators: Kirk Patch, Nathaniel Fredericks.

A Source Protection Plan (SPP) for the Berlin Municipal Water System was approved February 9, 2012 and updated in March 2016. A copy of the SPP is on file with the Berlin Municipal Water System. Information on the vulnerability of the water supply to contamination (Possible Sources of Contamination) is found in the approved SPP. Improperly maintained septic systems and proximity to roadways may be possible sources of contamination.

SOS prepared this report. If you have any questions about Berlin Municipal Water System's water quality, call 1-888-767-1885 or email us at SimonOp@aol.com.

COMPLIANCE: This report is a snapshot of the quality of water that we provided for the year 2017. It also includes the date and results of any contaminants that were detected within the past five years tested less than once a year. Any contaminants detected within the past five years are listed along with the date of detection and concentration. **There were no violations in 2017.**

<u>Disinfection Residual</u>	<u>RAA</u>	<u>Range</u>	<u>MRDL</u>	<u>MRDLG</u>
Chlorine	0.341 mg/L	0.270-0.450	4.0	4.0

<u>Contaminants</u>	<u>Level Detected</u>	<u>Range</u>	<u>MCL</u>	<u>MCLG</u>	<u>Sample Date</u>
Nitrate	0.23 ppm	0.23- 0.23	10	10	01/12/2017
Gross Alpha with Radon and Uranium	4.69 pCi/L	4.69-4.69	10	0	04/18/2016

	<u>LRAA</u>	<u>Range</u>	<u>MCL</u>	<u>MCLG</u>	<u>Monitoring Period</u>
Total Trihalomethanes	6.7 ppb	6.7-6.7	80	0	08/15/2017

Lead and Copper Action Levels

<u>Contaminant</u>	<u>Action Level</u>	<u>90th Percentile</u>	<u>Monitoring Period</u>	<u># of Sites that Exceeded the Action Level</u>	<u>Total # of Sites Sampled</u>
<u>Detected</u>					
Copper	1.3 ppm	0.19	2017	0	10
Lead	15 ppb	2.00	2017	0	10

Possible Sources of Contamination

Chlorine – water additive to control microbes.

Copper and Lead – corrosion of household plumbing systems; erosion of natural deposits.

Gross Alpha with Radon and Uranium – erosion of natural deposits.

Nitrate- runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.

Total Trihalomethanes – by-product of drinking water chlorination.

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. Berlin Municipal Water System 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 of 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 drinking 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Sources of Drinking Water and Contaminants

The sources of drinking water (both tap water and bottled water) include surface water (streams, lakes) and ground water (wells, springs). It also picks up substances resulting from human activity and from animals. Some “contaminants” may be harmful. Others, such as iron and sulfur, are not harmful. Public water systems treat water to remove contaminants if they are present.

In order to ensure that your water is safe to drink, we test it regularly according to regulations established by the U.S. Environmental Protection Agency and by the State of Vermont. These regulations limit the amount of various contaminants:

- *Microbial organisms* (viruses and bacteria) may come from sewage treatment facilities, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic chemicals* (salts and metals) can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, or farming.
- *Synthetic Organic chemicals* (pesticides and herbicides) may come from agriculture, urban storm water runoff, residential uses, and careless disposal of household chemicals.
- *Volatile Organic chemicals* (gasoline and solvents) may come from gas stations, urban storm water runoff, septic systems, industrial processes, and careless disposal of household chemicals.
- *Naturally occurring radioactivity*