

City of New Berlin Water Utility
May 2009



2008 Water Quality Report



Water Utility Mission Statement

The mission of the Water Utility of the City of New Berlin: To be the responsible custodian for, and to provide a good quality, potable water supply at adequate pressures and in sufficient quantity for consumption and fire protection purposes. To be cost effective, and to educate the public about the benefits of being a good water steward.

“Protect our Groundwater to Insure Quality Water”

Many people take having an unlimited source of clean water for granted, but the value of a reliable supply of clean water cannot be overestimated. The fate of many great civilizations has been determined by the quality and quantity of their water supply. In modern times, the quality of our lives is no less dependent on our water supplies. In fact, our high standard of living demands more water than ever. The production of a meal consisting of a hamburger, fries and soft drink requires over 1,000 gallons of water. In Wisconsin, we are fortunate to have a large supply of good quality drinking water. Where does all this water come from, and to what do we owe this good fortune? The large quantities of water that we use comes from a variety of sources. Most drinking water comes from wells that tap into underground aquifers. An aquifer is similar to a very large sponge; it stores water in the pore spaces between the soil and rock particles. Surface waters such as lakes and rivers are utilized by about 7% of the community water systems in the state. These systems supply water to roughly 30% of the citizens of Wisconsin. Why is groundwater so commonly used? One advantage of using groundwater over surface water is its abundance. Adequate supplies can be found in almost all areas of Wisconsin and often requires little or no treatment. Surface water usually requires more treatment which can be quite expensive. Another reason for groundwater's popularity is that for many areas, there may not be a large enough river or lake to provide a community with water. Most groundwater is naturally clean because impurities are filtered out as rain and snowmelt slowly percolate down from the surface through the underlying soil and rock. This same process can also, however, result in impurities such as excess fertilizers and pesticides or chemical spills, passing from the surface to the water, resulting in groundwater contamination. The number of groundwater contamination incidents are rising. Wells have been contaminated from leaking underground storage tanks, agricultural chemicals, landfills and many other sources. Once a well is contaminated there is little that can be done. Groundwater cleanups are extremely costly, time-consuming and only partially successful. The best strategy is prevention. Wisconsin's Wellhead Protection Program is designed to do just that. By identifying areas that contribute water to wells and the potential sources of contamination therein, we can prevent the loss of a good water source that has taken nature many years to store.

So far, the number of contaminated wells is relatively small. For this we can thank the natural purifying properties of soil and the fact that most groundwater contaminants have only recently been introduced into the environment, more of them are likely to find their way into the groundwater.

For additional information on water in the news, please check www.drinktap.org presented by the American Water Works Association. The Utility recently became an EPA Water Sense partner. Learn how to conserve water tips at www.epa.gov/watersense. Take a tour of the ideal water conserving house and try the free drip calculator at www.h2ouse.org

2008 Water Testing Results

The City of New Berlin is publishing the results of monitoring done on its drinking water for the period from January 1, 2008 through December 31, 2008. The purpose of this is to inform residents of exactly what is in the tap water and heighten awareness of the need to preserve and protect our drinking water sources.

The table below lists laboratory testing results for New Berlin during the past year. The items listed were detected from a monitoring list of about 80 regulated substances and several more unregulated substances. Regulated substances have Maximum Contaminant Levels (MCLs) established by the Safe Drinking Water Act. We also monitor unregulated substances because they may affect the safety and quality of drinking water, and they are important for establishing future drinking water regulations.

Detected substances are divided into two categories: A) Inorganic Contaminants and B) Volatile Organic Contaminants. Testing is not required for each parameter every year. 30 samples of Lead and Copper were tested in 2008.

According to the EPA, drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Their presence does not necessarily indicate that water poses a health risk. More information can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

Contaminants in bottled water are regulated by the Food and Drug Administration (FDA), whose rules protect the public in the same manner as tap water regulations. If you prefer bottled water, you should know that it is no safer, nor is it regulated any more stringently than tap water. It is, however, many times more expensive.



Did you know that a gallon of water weighs 8.34 pounds? An average person uses 100 gallons of water each day.

Substance Controlled Prior to Distribution	MCL	Level Detected	Units	Violation Y/N	Likely Source of Substance
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A. Inorganic Contaminants

Arsenic	10	N/D	UG/L	☺No	Erosion of natural deposits
Barium	2,000	66	UG/L	☺No	Erosion of natural deposits
Fluoride	4	0.43	MG/L	☺No	Erosion of natural deposits
Nitrate	10	0.05	MG/L	☺No	Runoff from fertilizer use
Sulfate	500	151	MG/L	☺No	N/A
Sodium	20	16.7	MG/L	☺No	N/A
Bromodichloromethane	100	N/D	UG/L	☺No	By-product of chlorination
Chloroform	100	N/D	UG/L	☺No	By-product of chlorination
Dibromochloromethane	100	N/D	UG/L	☺No	By-product of chlorination

B. Volatile Organic Contaminants

Trichloroethylene	5.0	N/D	UG/L	☺No	Discharge from metal degreasing sites
TTHM:					
Total Trihalomethanes	100	1.1	UG/L	☺No	By-product of chlorination

Definition of Terms Used:

N/A—Not Applicable

N/D—Not Detected

MG/L—Milligrams per liter

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water.

Microbiological Contaminants: 30 samples taken per month with **NO** violations

UG/L—Micrograms per liter

City of New Berlin Drinking Water

Issues & Answers—Radiological Results

Like many cities in Wisconsin and the Upper Midwest, New Berlin's water contains radiological substances (combined radium and alpha emitters) above the EPA's Maximum Contaminant Level (MCL). This has resulted in an ongoing violation that residents have been made aware of by the City of New Berlin Water Utility on their quarterly bill. These radiological parameters occur naturally in the geological sediment and groundwater of our region. The New Berlin water system currently relies on the deep sandstone aquifer as its main source of supply. This aquifer is known for its higher than normal concentrations of certain radionuclide compounds, due to natural erosion of the deposits in the aquifer. Alpha emitters are radioactive minerals that emit a form of radiation known as alpha rays. Some people who drink water containing alpha emitters in excess of the MCL over many years have an increased risk of getting cancer. Combined radium 226/228 is an element that also emits radiation. For example, an individual exposed to radium in drinking water at a level of 20 pCi/L over the course of 70 years has a roughly 0.1% increased risk of developing bone cancer. The State and Federal MCL for gross alpha is set at 15 picocuries per liter (pCi/l), and for combined radium of 226/228 is 5 pCi/l. (The City of New Berlin has conducted a detailed evaluation of the water supply and treatment methods to bring combined radium 226/228 and alpha emitters in compliance with water quality standards.) Analysis results indicate a level of 12 pCi/l for gross alpha, and 5.8 pCi/l for combined radium in the City's water supply system.



Did you know that your body is approximately 70% water? Drink 8 glasses per day.

Lead and Drinking Water

Lead is a contaminant that can get into drinking water from a home's plumbing system. For this reason, lead is regulated by testing samples in the distribution system. None of the water samples checked in our water system exceeded the upper limit for lead. Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced, or reduced. The City of New Berlin took 30 lead and copper samples in 2008.

Your Water Utility

Source Water: The City of New Berlin customers west of the continental divide obtain water from groundwater wells within the City. We operate 7 wells that vary in depth from 321 to 2,018 feet. Customers east of the continental divide receive Milwaukee water from 2 Booster Pumping Stations and 1 water tower. These customers will receive a separate Milwaukee Water Quality Report.

6 Wells & Pump Stations (4 Sandstone, 2 Limestone)

2 Groundwater Water Towers

4 Underground Storage Tanks

4,227 Water Services for New Berlin Water and 2,205 Hydrants (there are 5,214 water services for Milwaukee Water)

152 miles or 802,000 feet of water main

300 to 1,080 Gallons pumped per minute

634,389,000 Gallons pumped in 2008

1.738 Million Gallons pumped per day (Average)

2.562 Million Gallons – Highest Day September 26, 2008

Please remember to follow our Lawn Sprinkling Water Conservation schedule all year round. This schedule will assure that the Utility will have sufficient water resources to meet the needs of the customer and have a good supply in the reservoirs for fire protection without adding strain on our pumps. Please water on odd days for odd numbered addresses and even days for even numbered addresses. Light watering of annuals and perennials is permitted at any time. Special permits for the watering of newly installed lawns can be obtained at the Utility Department at (262) 786-7086.

2008 New Berlin Tap Water Quality Report

May 2009

Dear City of New Berlin resident:

We are pleased to bring you the New Berlin Annual Water Quality Report for water testing completed in 2008. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our resources. We are committed to ensuring the quality of your water.

We want our valued customers to be informed about their Water Utility. If you have any questions about this report, or your Water Utility, please contact the City of New Berlin Utility office at (262)786-7086. Information is also available on the City's website at www.newberlin.org and on Cable Channel 25.



Use rain barrels to collect water for flowers and plants, or plant water conserving landscaping. Mulch around plants to retain water.



Conserve water for fighting fires and for emergencies.. Use water wisely all year round



Clear snow around fire hydrants in winter. Adopt a hydrant.



Repair dripping faucets and leaking toilets . A leak of 60 drops a minute equals 192 gallons/month of water down the drain.



City of New Berlin
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Association Affiliations:
American Public Works Association
Wisconsin Rural Water Association
Tri-County Waterworks Association

