

ANNUAL

WATER
QUALITY
REPORT

Water testing performed in 2009



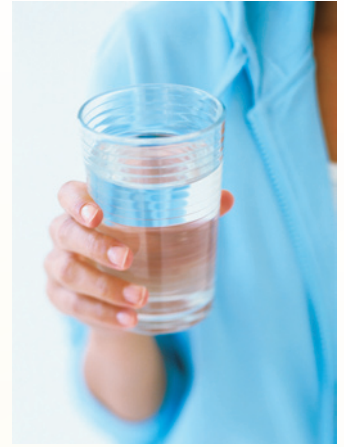
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This report was prepared by:
Batesville Water Works
7 N. Eastern Ave.
Batesville, IN 47006

Maintaining High Standards

Batesville Water Works is proud to present our annual water quality report. This report covers all testing performed between January 1, 2009, and December 31, 2009. Last year, in an attempt to detect contaminants in your drinking water, we conducted more than 2,100 tests during routine monitoring of water quality. The tests performed met or exceeded all state and federal health standards. We are constantly working to get the lowest levels of all chemicals found in drinking water, even naturally occurring chemicals. This report is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to U.S. EPA standards. The Utility is committed to providing you with the most complete information available.

This report and other information are available on the web at: www.batesvilleindiana.us. Click on departments, and click on Water & Gas Utility.



For more information about this report, or for any questions relating to your drinking water, please call Steve Wintz, Water Utility Manager, at (812) 934-3811.

Public Meetings

Our Utility Service Board meets on the last Thursday of each month at 12:00 noon in the City Memorial Building, 132 S. Main Street. Please feel free to attend these meetings. The current members of the Utility Service Board, an appointed citizen review board, are: Board Chairperson Sue Siefert, Assistant Chairperson Cliff Nordmeyer, and members: Arnold Kirschner, Tim Dietz, and Henry Pictor.

Where Does My Water Come From?

Your water is surface water. It comes from five municipal reservoirs: Bischoff, Mollenkramer, Oser, Feller, Hahn, and Liberty Park. These reservoirs are located south of town near CR 1400, Delaware Road, and east of SR 129 on Bischoff Road. When the water is pumped from the reservoirs, we treat it to remove contaminants and protect the public. The U.S. EPA and State of Indiana review the Utility's drainage areas. This review is aided by the Utility, by additional sampling meant to identify potential problems associated with farming or industrial uses in the reservoirs' drainage areas.

Substances That Could Be in Water

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at www.epa.gov/safewater/crossconnection.html. You can also call the Safe Drinking Water Hotline at (800) 426-4791.

Water Conservation

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.

Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.

Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.

Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from the Park Reservoir into the Clarifier Plant at Delaware Rd. There it is treated with a disinfectant to kill Algae and other micro organisms. Next, the water goes to a mixing tank where polyaluminumchloride and polymer are added. The addition of these substances causes small particles to adhere to one another (called "floc") making them heavy enough to settle into a clarifier, from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is sent to the Filter Plant at 7 N. Eastern Ave. where caustic soda (used to adjust the pH) and fluoride (used to prevent tooth decay) is added. The water is then filtered through layers of fine silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges. After the filters, Chlorine or Chloramines (the mixing of chlorine and ammonia) is added as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water.) Then, phosphate is added as a corrosion inhibitor (used to protect distribution system pipes). Finally, the water is pumped to the distribution system for use. The excess water being pumped goes into the water towers for storage (for future use and fire protection.)

LT2 Rule

The U. S. EPA has created the Long Term 2 Enhanced Surface Water Treatment Rule (LT2) for the sole purpose of reducing illness linked with the contaminant *Cryptosporidium* and other disease-causing microorganisms in drinking water. The rule will bolster existing regulations and provide a higher level of protection of your drinking water supply.

Sampling of our water

E. coli: Annual Average - 1.3/100ml

Limit: *E. coli*: Annual Average - 10.0/100ml

It is important to note that these results are from our raw water source only and not our treated drinking water supply. For more information, contact U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

A Source Water Assessment Plan (SWAP) is available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources.

According to the Source Water Assessment Plan, our water system had a susceptibility rating of medium. If you would like to review the Source Water Assessment Plan, please feel free to contact our office during regular office hours - Monday-Friday 8:00am to 5:00pm.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or www.epa.gov/safewater/hotline/.

Lead and Drinking Water

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. We are 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. 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.

Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/watrhome) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state allows us to monitor for certain substances less than once per year, because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2009	10	0	0.7	0.7–0.7	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2009	2	2	0.1238	0.1238–0.1238	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2009	[4]	[4]	1.6	0.64–2.3	No	Water additive used to control microbes
Combined Radium (pCi/L)	2006	5	0	0.2	0–0.4	No	Erosion of natural deposits
Fluoride (ppm)	2009	4	4	1.0	0.9–1.1	No	Erosion of natural deposits; Water additive which promotes strong teeth.
Haloacetic Acids [HAA] (ppb)	2009	60	NA	13.2	7.3–28.6	No	By-product of drinking water disinfection
Nitrate (ppm)	2009	10	10	0.63	0.63–0.63	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2009	80	NA	20.65	5.4–43.0	No	By-product of drinking water disinfection
Total Coliform Bacteria (# positive samples)	2009	1 positive monthly sample	0	0	NA	No	Naturally present in the environment
Total Organic Carbon (% removal)	2009	TT Required TOC Removal 35% or greater	NA	48%	35%–52%	No	Naturally present in the environment
Turbidity ¹ (NTU)	2009	TT <0.5 NTU with 95% <0.3 NTU	NA	0.25	0.01–0.25	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2009	TT <0.5 NTU with 95% <0.3 NTU	NA	100% <0.3	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2008	1.3	1.3	0.158	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2008	15	0	1.9	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits

OTHER REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Haloacetic Acids [HAA]- IDSE Results (ppb)	2009	NA	NA	25.75	4.17–57.62	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]–IDSE Results (ppb)	2009	NA	NA	37.53	4.3–63.61	No	By-product of drinking water disinfection

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Chloroform (ppb)	2009	2.4	NA	Byproducts of drinking water disinfection.

¹Footnote for Batesville Water Works: Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

We were required by the U.S. EPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our distribution system that have elevated disinfection by-product concentrations. Disinfection by-products (e.g., HAAs and TTHMs) result from continuous disinfection of drinking water and form when disinfectants combine with organic matter that naturally occurs in the source water.

Definitions

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.

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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.