

## **Brazil Water Utility 2012 CCR Report.**

### **Opportunities for public participation:**

Common Council meetings are held the second Wednesday of each month at 7pm. Public Board of Works & Safety meeting is held the second Wednesday of each month at 10:00 am, and the fourth Wednesday of each month at 10am. All meetings are held in the council chambers of City Hall.

### **Is your water safe?:**

This brochure is being provided so that you the water customer may know the quality of the drinking water that we provided last year. Included as part of this report are details about where the water that you drink comes from, what it contains and how it compares to the Environmental Protection Agency (EPA) and Indiana Standards. We are committed to providing you with all the information that you need to know about the quality of the water that you drink.

### **What if I have special health considerations?:**

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. U.S. Environmental Protection Agency and Centers for Disease Control 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](tel:8004264791).

### **What is Cryptosporidium?:**

Cryptosporidium is a microscopic organism that lives in the intestines of animals and people. When ingested, this microscopic pathogen may cause a disease called cryptosporidiosis, which has flu-like symptoms. Although there has been no cryptosporidium found in treated finished drinking water, cryptosporidium is found not in source water such as our well field located at the westerly edge of Walnut Creek and consists of a common glacial aquifer. Brazil City Water Utility utilizes a stringent monitoring program, testing source water and finished drinking water as well as using online monitors that measure the clarity of the water, which helps determine the likeliness of the microbe's presence in the drinking water.

### **Where does our water come from?:**

The City of Brazil, Water Utility, water source is ground water wells located along the westerly edge of the Walnut Creek in Putnam County. This water source has been classified by the Indiana Department of Environmental Management, as a "Ground Water Source," not under the influence of surface water.

### **How hard is my water?:**

As is common with water in this region, Brazil's water is considered hard due to the natural levels of minerals iron and manganese. The water hardness typically ranges from around 16 to 20 grains per gallon (the measure often referred to in determining water softener settings).

### **What is being done to improve water quality?:**

**Wellhead protection.** In order to minimize the risk of ground water contamination, Brazil Water Utility in accordance with the State Wellhead Protection Rule and local ordinances has implemented a Wellhead Protection Program. This program involves working with local planning teams and regulators, mapping of the wellhead protection areas, identifying potential sources of ground water contamination, working with businesses to prevent spills and releases of chemicals, and preparing a contingency plane in case of contamination.

### **What can I do to conserve water?:**

Everyone plays an important role in water conservation. Measures you and your families take at home today are critical to ensuring an adequate supply of treatable drinking water in the future. For starters, don't let the water run when brushing your teeth or shaving, run dishwashers and washing machines only when they're full, and regularly check for leaks in toilets and faucets. Use a shut-off nozzle on your garden hose and never use water to clean sidewalks and driveways. Water your lawn no more than every other day and use a rain sensor on an irrigation system so the system turns off when it's raining. One of the easiest ways you can protect water quality is to limit the amount of fertilizer you use on your lawn, and always make sure it's phosphorus-free; the excess phosphorus provides nutrients for algae that can harm water quality.

[What does this chart mean?](#)

The chart below gives you a quick look at some of the substances that the EPA requires the utility to test for. You'll notice the contaminate is listed to the left, followed by the amount that we found in our water and the maximum amount allowed by regulations. The tests are done on treated, or "finished", water. **\*Important definitions located at bottom of table.**

Contaminate	Violation Y/N	Level Detected	Unit Measure	MCL	MCLG	Major Sources in Drinking Water.		
<b>Volatile Organic (year:2011) IN5211001</b>								
Bromodichloromethane	N	0.7	mg/L	NA	NA	By products of drinking water disinfection.		
Chloroform	N	0.7	mg/L	NA	NA	By products of drinking water disinfection.		
<b>Inorganic (year: 2011)IN5211001</b>								
Chromium	N	0.001	mg/L	0.1	0.1	Discharge from steel and pulp mills; erosion of natural deposits.		
Fluoride (Adjusted)	N	0.171	mg/L	2	N/A	Erosion of natural deposits; Water additive which promotes; Strong Teeth discharge from fertilizer & aluminum factories		
Sodium	N	10.83	mg/L	NA	NA	Naturally occurring		
Mercury	N	0.003	mg/L	0.002	0.002	Erosion of natural deposits; discharged from refineries and factories; run off from land fills and croplands.		
Nitrate-N (year: 2011)	N	1.305	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.		
<b>Total Trihalomethanes (IN5211001)</b>								
Total THM's (year 2011)	N	10.2	ug/L	80	NA	By products of drinking water disinfection.		
<b>Haloacetic Acids (IN5211001)</b>								
Total HAA5 (year 2011)	N	7.6	ug/L	60	NA	By products of drinking water disinfection.		
<b>Lead/Copper testing for Brazil City Water Works:</b> 10 sites consisting of residential & commercial sampled with 90% of samples equal to or less than the number of sites sampled. None of the sites tested exceeded the MCL.								
Lead (year 2011)	N	0.0047	mg/L	AL=0.015	0	Corrosion of household plumbing systems; erosion of natural deposits.		
Copper (year 2011)	N	0.212	mg/L	AL=1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.		
<b>Radium 228 in pCi/l testing</b>								
Radium 228 in pCi/l testing	N	0.1	pCi/l 5	5		Naturally occurring or can be the result of oil and gas production and mining activities.		
<b>Microbiological Contaminants</b>								
Violation Description	Begin Date	End Date	Corrective measure taken.					
Total Coliform Test (Present)	06/15/2011	06/23/2011	Bac-T tests retaken with additional samples from all Ground Water well sources, along with up stream and down stream from positive sample. Samples submitted to IDEM for further tests all samples that were tested came back negative/absent for Total Coliform.					
<b>Health effects information associated with the aforementioned Violation:</b>								
Coliform, Total (TCR): 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 one of the samples and this was a warning of potential problems.								
<b>Residual Disinfectant</b>								
Contaminate	Date	MCL	MCLG	Units	Results	Min/Max	Violates	Likely Sources
Chlorine Residual	2011	4 MRDL		.62 mg/L		.33/.83	No	IN5211001 -Water Additive (disinfectant) Used to control microbiological organisms.

## What do all of these terms mean? (Important Definitions)

**N/A**- Either not available or not applicable.

**MCLG- Maximum Contaminate Level Goal:** the level of a contaminate in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

**MCL-Maximum Contaminate 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.

**MRDL-Maximum Residual Disinfectant Level:** The highest level of the disinfectant allowed in drinking water. There is convincing evidence that the addition of disinfectant is necessary for control of microbial contaminants.

**NTU-Nephelometric Turbidity Units:** Unit to measure turbidity.

**SMCL-Secondary Maximum Contaminant Limits:** Non-mandatory guidelines established by the EPA to assist utilities in managing drinking water for aesthetic considerations, such as taste, odor and color. These contaminants are not considered to present a risk to human health at the SMCL.

**Turbidity**-The measure of the cloudiness of water. IW monitors turbidity as it is a good indicator of the effectiveness of the filtration system.

**P\***-Potential violation, one that is likely to occur in the near future once the system has sampled for four quarters.

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

**ppm**-Parts per million.

**ppb**-Parts per billion.

**pCi/L**-Picocuries per liter, used to measure radioactivity.

**org/10L**-Organisms per 10 liters.

**TOC**-Total organic carbon.

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

**ND**-Not Detected, The result was not detected at or above the analytical method detection level.

## Availability of a Source Water Assessment (SWA)

**A Source Water Assessment (SWA)**-has been prepared for our system. According to this assessment, our system has been categorized with a moderately high susceptibility risk.\* **Increased Mercury presence prompting quarterly testing as required by IDEM.** More Information of this assessment can be obtained by contacting Mr. Jacob Raubuch at 812-448-1700 at your convenience. You can also obtain additional information by contacting Ms. Rebecca Travis of IDEM's Drinking Water Branch at (317)234-3243.