

**Conserve
WATER**



2016 Annual Water Quality Report
(Consumer Confidence Report)

Public Water Supply District No. 3
of Johnson County
(MO1024311)

106 SE 421 Road Warrensburg, MO 64093

Ph: 660.429.2494 Fx: 660.429.2978

admin@pwsd3.com www.pwsd3.com

What Is An Annual Water Quality Report?

The State of Missouri and the U.S. Environmental Protection Agency (EPA) require all public water suppliers to send out a Consumer Confidence Report (CCR) to describe the quality of the water people are consuming. The guiding principle behind the CCR is that all people have the right to know what is in their drinking water and where it comes from. The CCR provides an opportunity for water suppliers to educate consumers about the sources and quality of their drinking water. In compliance with the Safe Drinking Water Act, Public Water Supply District No. 3 is delivering this CCR to all its customers. **We ask that landlords, employers, and anyone else who receives the water bill for other water users to share this report with them.** Additional copies of this report are available by contacting our office at 660-429-2494. This report is intended to provide you with important information about your drinking water and the efforts made to provide safe drinking water. It includes basic information on the source(s) of water, the levels of any contaminants detected in the water, and compliance with other drinking water rules.

What Is the Source of My Water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Public Water Supply District No. 3 draws groundwater from an aquifer through 3 deep wells.

SOURCE NAME

TYPE

Well # 1 North

Ground Water

Well # 2 South

Ground Water

Well # 3

Ground Water

Source Water Assessment:

The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water source to potential contaminants. This process involved the establishment of source

water area delineations for each well or surface water intake and then a contaminant inventory was performed within those delineated areas to assess potential threats to each source. Assessment maps and summary information sheets are available on the internet at <http://maproom.missouri.edu/swipmaps/pwssid.htm>.

To access the maps for your water system you will need the State-assigned identification code, which is MO1024311. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

Why Are There Contaminants In My Water?

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Contaminants that may be present in source water include:

A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

E. Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Department of Natural Resources prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Is Our Water System Meeting Other Rules That Govern Our Operations?

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure its safety. Our system has been assigned the identification number MO1024311 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further explained later in this report.



Definitions & Abbreviations:

Population: 3888, the equivalent residential population served including non-bill paying customers.

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.

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.

SMCL: Secondary Maximum Contaminant Level, the secondary standards that are non-enforceable guidelines for contaminants and may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor or color) in drinking water. EPA recommends these standards but does not require water systems to comply.

AL: Action Level, the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

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

90th Percentile: For Lead and Copper testing. 10% of test results are above this level and 90% are below this level.

Range of Results: shows the lowest and highest levels found during a testing period, if only one sample was taken, then this number equals the Highest Value.

RAA: Running Annual Average, the average of sample analytical results for samples taken during the previous four calendar quarters.

LRAA: Locational Running Annual Average, the locational average of sample analytical results for samples taken during the previous four calendar quarters.

TTHM: Total Trihalomethanes (chloroform, bromodichloromethane, dibromochloromethane, and bromoform) as a group.

HAA5: Haloacetic Acids (mono-, di- and trichloroacetic acid, and mono-, and di-bromoacetic acid) as a group.

ppb: parts per billion or micrograms per liter.

ppm: parts per million or milligrams per liter.

n/a: not applicable

NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.

nd: not detectable at testing limits.

Violations & Health Effects Information:

No Violations Occurred in the Calendar Year 2016

Optional Monitoring (not required by EPA)

Secondary Contaminants	Collection Date	Highest Value	Range	Unit	SMCL
Alkalinity, CaCO ₃ Stability	5/7/2014	257	249—257	MG/L	
Calcium	5/7/2014	52.8	46.7—52.8	MG/L	
Chloride	5/7/2014	43.2	40—43.2	MG/L	250
Hardness, Carbonate	5/7/2014	231	208—231	MG/L	
Iron	5/7/2014	0.06	0.0368—0.06	MG/L	0.3
Magnesium	5/7/2014	24.2	22.1—24.2	MG/L	
Manganese	5/7/2014	0.00235	0.00139—0.00235	MG/L	0.05
Nickel	5/7/2014	0.0013	0.0012—0.0013	MG/L	0.1
O-xylene	5/7/2014	0.00085	0—0.00085	MG/L	10
PH	5/7/2014	7.58	7.26—7.58	PH	8.5
Potassium	5/7/2014	4.06	3.59—4.06	MG/L	
Sodium	5/7/2014	37.2	35.4—37.2	MG/L	
Sulfate	5/7/2014	34.9	27.4—34.9	MG/L	250
TDS	5/7/2014	324	311—324	MG/L	500
Xylene, Meta & Para	5/7/2014	0.94	0—0.94	UG/L	
Zinc	5/7/2014	0.0145	0.00975—0.0145	MG/L	5

Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Do I Need To Take Any Special Precautions?

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 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

How Might I Become Actively Involved?

If you would like to observe the decision-making process that affect drinking water quality, please attend our regularly scheduled meetings. They are held on the 3rd Tuesday of each month at our office located at 106 SE 421 Rd at 5:30 P.M. If you have any further questions about your drinking water report, please contact David Streeter at 660-429-2494.

The state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Records with a sample year more than one year old are still considered representative.

Regulated Contaminants

Regulated Contaminants	Collection Date	Highest Result	Range (low—high)	Unit	MCL	MCLG	Typical Source
Barium	5/7/2014	0.123	0.0772—0.123	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	5/7/2014	2.27	2.04—2.27	ppb	100	100	Discharge from steel and pulp mills
Ethylbenzene	5/7/2014	0.59	0—0.59	ppb	700	700	Discharge from petroleum refineries
Fluoride	5/7/2014	0.68	0.65—0.68	ppm	4	4	Natural deposits; Water additive which promotes strong teeth
Nitrate—Nitrite	5/12/2016	0.012	0—0.012	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Xylenes, Total	5/7/2014	0.00179	0—0.00179	ppm	10	10	Discharge from petroleum factories; Discharge from chemical factories

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low—high)	Unit	MCL	MCLG	Typical Source
(HAA5)	DBPDUAL-01	2016	0	0—0	ppb	60	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-01	2016	0	0—0	ppb	80	0	Byproduct of drinking water disinfection

Lead and Copper	Date	90 TH Percentile	Range	Unit	AL	Sites Over AL	Typical Source
Copper	2013—2015	0.407	0.00946—0.594	ppm	1.3	0	Corrosion of household plumbing systems
Lead	2013—2015	1.21	1.21—2.43	ppb	15	0	Corrosion of household plumbing systems

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Combined Radium (-226 & -228)	5/22/2013	1.8	1.3—1.8	pCi/l	5		Erosion of natural deposits
Gross Alpha Particle Activity	5/22/2013	10	6.2—10	pCi/l			Erosion of natural deposits
Radium—226	5/22/2013	1.8	1.3—1.8	pCi/l	5	0	

Microbiological	Result	MCL	MCLG	Typical Source
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No Violations Occurred in the Calendar Year of 2016

Special Lead & Copper Notice:

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. Public Water Supply District No. 3 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 for 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 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 (800-426-4791) or at <http://water.epa.gov/drink/info/lead/index.cfm>.

You can also find sample results for all contaminants from both past and present compliance monitoring online at the Missouri DNR Drinking Water Watch website <http://dnr.mo.gov/DWW/indexSearchDNR.jsp>. To find Lead and Copper results for your system, type your water system name in the box titled Water System Name and select *Find Water Systems* at the bottom of the page. The new screen will show you the water system name and number, select and click the **Water System Number**. At the top of the next page, under the *Help* column find, *Other Chemical Results by Analyte*, select and click on it. Scroll down alphabetically to Lead and click the blue Analyte Code (1030). The Lead and Copper locations will be displayed under the heading *Sample Comments*. Scroll to find your location and click on the *Sample No.* for the results. If your house was selected by the water system and you assisted in taking a Lead and Copper sample from your home but cannot find your location in the list, please contact PWSD #3 for your results.