

HOLDEN

2009 Annual Water Quality Report

(Consumer Confidence Report)

MO1010371

This report is intended to provide you with important information about your drinking water and the efforts made to provide safe drinking water.

Attencion!

Este informe contiene información muy importante. Tradúscalo o prequentele a alguien que lo entienda bien.
[translated: This report contains very important information. Translate or ask someone who understands this very well.]

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 pickup substances resulting from the presence of animals or from human activity.

Our water comes from the following source(s):

Source Name	Type
HOLDEN LAKE (NEW)	Surface Water

Holden's source of water is from the **Holden City Lake** consisting of 385 acres of water surrounded by 215 acres of rural land totaling 600 acres. Our Lake holds more than a billion gallons of water. Holden's surface water treatment plant began operations in 1991, replacing the old treatment plant that was built in 1887, which has been converted into the present offices shared by the Board of Public Works and O & M Enterprises, Inc.

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 printed at the top of this report. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

We do not take water for granted!

We use a multi-barrier treatment process to assure that sediment, harmful bacteria, and certain minerals are removed. Testing is done using sophisticated equipment and scientifically advanced procedures. Our mission is to provide our customers with good quality water in the most efficient manner possible.

We want our valued customers to be informed!

The Holden Board of Public Works (BPW) is composed of 4 volunteer members appointed by the Mayor and 1 member of the city council. The BPW was formed in 1961, it consists of 2 city departments (water and wastewater). BPW provides the oversight for the water and wastewater treatment, distribution and collection systems, laboratory services, engineering, planning and development of these utilities. Today, serving over 1,100 customers and oversees the Holden Lake.

How might I become actively involved?

If you would like to observe the decision-making process that affects drinking water quality, or if you have any further questions about your drinking water report, please call us at 816-732-6343 to inquire about scheduled meetings or contact persons. Regularly scheduled board meetings held at the water department office, 900 S. Vine, Holden Missouri, the first Tuesday of each month at 7:00 p.m.

Progress as Promised

We have been working for many years to improve Holden's infrastructure, the Holden Lake and the water treatment plant are two major projects. The water plant was built in 1991. These two major projects improved Holden water quality and quantity to meet future regulations and growth into the foreseeable future with only minor changes. Between the years of 2001 – 2003, changes were made in the treatment process that has assisted Holden in surpassing water quality standards well into the future. In 2007 & 2008, we were researching additional changes in the treatment process that will advance water quality beyond future standards of 2014. Today, that research has been used to provide additional flexibility to Holden's treatment process to meeting changing regulations and water quality. These multi-barrier treatment processes has added the flexibility needed for an ever changing environment.

- **Water Utility**

In 2008, a new piping system was added to keep the water in the 500,000 gallon standpipe blended and reducing the amount of time the water stays in the standpipe at 19th & Market. In 2009, the intake piping at the lake was replaced. Improvements made at the water treatment plant includes the following: Electrical upgrade to the chlorine dioxide feed systems; Replaced the chlorine dioxide generator; Replaced piping for chemical feed; and Acidized the filters. The scheduled main replacement program was delayed by skyrocketing cost of materials. The main replacement program will restart with the mains identified as priorities, while keeping costs at a minimum. Many of these projects will need to coincide with the City of Holden Comprehensive Plan. Holden can supply the quality and quantity of water needed to both residential and industrial customers.

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- **Wastewater Utility**

A preliminary engineering report has been submitted for DNR approval to improve the wastewater facility performance to meet new regulations in 2014 and lower electrical usage. Also included in the preliminary engineering report is to add a trunk line north of the railroad tracks to address present and future flows in the north and east sections of Holden. The City of Holden, Board of Public Works is using both State SRF and Energize Missouri programs to help fund these projects. As always future regulations is a large part of planning improvements. Additionally an I/I study is continuing involving smoke testing, dye testing, video inspections and observing flow variations. This ongoing study is used to pinpoint additional areas where rainwater is getting into the collection system.

- **Professional Management**

In 1985 the Board of Public Works hired the professional services of O & M Enterprises to improve our infrastructure, while maintaining competitive utility rates. O & M Enterprises developed a capital improvement plan that works in the means of a balanced operating budget. BPW is divided into five operating budgets Water Treatment, Distribution, Wastewater Treatment, Collection System, and Lake. Capital projects completed: New water and wastewater treatment facilities; Lift Station and the first phase of the collection system replacement; and Hydraulic study and model to begin upgrading many areas of Holden with the water main replacement phase of the capital improvement plan. O & M Enterprises, Inc., staff is certified in both water and wastewater operations with experience in managing utilities.

The City of Holden, Board of Public Works (BPW), has worked very hard, for many years to ensure that this water system will meet the demands of both safe drinking water standards and growth of the community. The BPW has positioned these utilities for long-term success during these difficult times of growth. Holden's surface water supply is one of our greatest assets in attracting new businesses to Holden's Business Park. **Can the City of Holden, Board of Public Works provide the needed utilities for Holden to grow? YES WE CAN.**

Why are there contaminants in my water?

We routinely monitor for contaminants in your drinking water. Water Quality is continually monitored during the operation of the water treatment plant and samples are taken throughout the distribution system including those sent to the Missouri Department of Natural Resources. 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 by-products 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 it's safety. Our system has been assigned the identification number MO1010371 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.

How might I become actively involved?

If you would like to observe the decision-making process that affect drinking water quality or if you have any further questions about your drinking water report, please call us at 816-732-6343 to inquire about scheduled meetings or contact persons.

Do I need to take any special precautions?

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 trans-plants, 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).

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Contaminants Report

Definitions:

MCLG: Maximum Contaminant Level Goal, or 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, or 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.

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

TT: Treatment Technique, or 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.

Level Found: is the average of all test results for a particular contaminant.

Range of Detections: Shows the lowest and highest levels found during a testing period, if only one sample was taken, then this number equals the Level Found.

MRLDG: Maximum Residual Disinfectant Level Goal, or the level of a drinking water disinfectant below which there is no known or expected risk to health.

MRDL: Maximum Residual Disinfectant Level, or the highest level of a disinfectant allowed in drinking water.

Abbreviations:

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.

MFL: million fibers per liter, used to measure asbestos concentration.

nd: not detectable at testing limits.

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 Value	Range	Unit	MCL	MCLG	Typical Source
ATRAZINE	8/18/2009	0.95	0.69 - 0.95	ppb	3	3	Runoff from herbicide used on row crops
BARIUM	2/23/2009	0.0542	0.0542	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	2/23/2009	0.21	0.21	ppm	4.0	4	Natural deposits; Water additive which promotes strong teeth.
NITRATE+NITRITE (AS N)	11/10/2009	0.13	0.13	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection By Products	Monitoring Period	RAA	Range	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2009	40.03918	8.67 - 58.4	ppb	60.000	0	By-product of drinking water disinfection
TOTAL TRIHALOMETHANES (TTHM)	2009	56.87822	16 - 112	ppb	80	0	By-product of drinking water chlorination
	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
CARBON, TOTAL ORGANIC (TOC)	3/16/2009	6.84	2.36 - 6.84	ppm			Naturally present in the environment

Lead and Copper	Date	90 TH Percentile	Range	Unit	AL	Sites Over AL	Typical Source
COPPER	2005 - 2007	0.0932	0.00729 - 0.099	ppm	1.3	0	Corrosion of household plumbing systems
LEAD	2005 - 2007	5.3	2.4 - 15.8	ppb	15	1	Corrosion of household plumbing systems

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Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2009				

Turbidity					
<i>Turbidity is a measure of cloudiness of water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.</i>					
Percentage of samples In compliance with Std	Month Occurred	Violation	Highest Single Measurement for the year	Month Occurred	Sources
96	7	No	0.298	July	Soil runoff

Violations and Health Effects Information

During the 2008 calendar year, we had the below noted violation(s) of drinking water regulations.

Type	Category	Analyte	Compliance Period
No Violations Occurred in the Calendar Year of 2009			

Any Additional Required Health Effects Language or Violation Notices
 Additional Required Health Effects Language:

Infants and children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4761).

There are no additional required health effects violation notices.

Optional Monitoring (not required by EPA)

Optional Contaminants

Monitoring is not required for optional contaminants.

Secondary Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
ALKALINITY, CaCO3 STABILITY	2/23/2009	146	146	MG/L			
ALKALINITY, TOTAL	1/12/2009	88	84 - 88	MG/L			
CALCIUM	2/23/2009	18.1	18.1	MG/L			
CHLORIDE	2/23/2009	42.9	42.9	MG/L	250		
CHLORITE	4/28/2009	0.29	0.06 - 0.29	ppm	1.0	0.8	By-product of drinking water chlorination
HARDNESS, CARBONATE	2/23/2009	61.8	61.8	MG/L			
MAGNESIUM	2/23/2009	4.01	4.01	MG/L			
PH	2/23/2009	7.58	7.58	PH	8.5		
POTASSIUM	2/23/2009	4.95	4.95	MG/L			
SODIUM	2/23/2009	33.2	33.2	MG/L		20	
SOLIDS, TOTAL DISSOLVED (TDS)	2/23/2009	190	190	MG/L	500		
SULFATE	2/23/2009	7.49	7.49	MG/L	250		