2016 WATER QUALITY DATA
DETECTED CONTAMINANTS

U of I samples collected by the university within the Campus Distribution System

IAWC samples collected within the Parent Water Supply by Illinois-American Water Company

LEAD AND COPPER							
Contaminant (Units)	**Sampled by/ Date**	**MCLG**	**AL**	**90th Percentile**	**# Sites Exceeding AL**	**Violation**	**Typical Source of Contaminant**
Copper (ppm)*	U of I 2014	1.3	1.3	0.14	0	NO	Corrosion of household plumbing; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)*	U of I 2014	0	15	13	2	NO	Corrosion of household plumbing; Erosion of natural deposits

REGULATED CONTAMINANTS							
Contaminant (Units)	**Sampled by/ Date**	**MCLG**	**MCL**	**Level Found****	**Range of Detections**	**Violation**	**Typical Source of Contaminant**
Arsenic (ppb)*	IAWC 2015	0	10	2.0	2.0 - 2.0	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste
Chlorine	U of I 2016	MRDLG 4	MRDL 4	2.0	2.0 - 2.0	NO	Water additive used to control microbes
Fluoride (ppm) [1]	IAWC	4	4	0.93	0.93 - 0.93	NO	Water additive that promotes oral health
Total Haloacetic Acids (HAA5) (ppb)	U of I 2016	NA	60	29	10.66 - 30.50	NO	By-product of drinking water chlorination
Combined Radium (pCi/L)	IAWC 2014	0	5	1.8	1.0 - 1.8	NO	Erosion of natural deposits
TTHM (Total Trihalomethanes) (ppb)	U of I	NA	80	67	21.1 - 103.0	NO	By-product of drinking water chlorination

STATE REGULATED CONTAMINANTS							
Contaminant (Units)	**Sampled by/ Date**	**MCLG**	**MCL**	**Level Found**	**Range of Detections**	**Violation**	**Typical Source of Contaminant**
Sodium (ppm) [2]	IAWC 2015	NA	NA	57.3	Single Sample	NO	Erosion of natural deposits; A water softener

BACTERIAL RESULTS							
Contaminant (Units)	**Sampled by/ Date**	**MCLG**	**MCL**	**# positive**	**Highest # of Positives**	**Violation**	**Typical Source of Contaminant**
Total Coliforms [3] (% pos/month)	U of I	0	1	1	2	NO	Naturally present in the environment

* The State of Illinois requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though accurate, is more than one year old.

** Not all sample results may have been used for calculating the Level Found because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

[1] Fluoride
Fluoride is added to the water supply to help promote oral health. The Illinois Department of Public Health recommends an optimal fluoride range of 0.9 mg/l to 1.2 mg/l.

[2] Sodium
Sodium has no federal or state MCL. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, consult a physician about this level of sodium in the water.

[3] Coliform
Coliforms are bacteria that are naturally present in the environment and are used as an indicator of the general bacteriological quality of the water. We are reporting the highest percentage of positive samples collected in any one month.

DEFINITIONS

MCLG: Maximum Contaminant Level Goal. The level of 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 technology.

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.

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

pCi/l: Picocuries per liter. A measurement of the natural rate of disintegration of radioactive contaminants in water.

Avg: Regulatory compliance with some MCLs are based on running annual averages of monthly samples.

AL: Action Level. The concentration of contaminant that, when exceeded, triggers treatment or other required actions by the water supply.

ALG: Action Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

ppm: parts per million. Also milligrams per liter or one ounce in 7,350 gallons of water.

ppb: parts per billion. Also micrograms per liter or one ounce in 7,350,000 gallons of water.

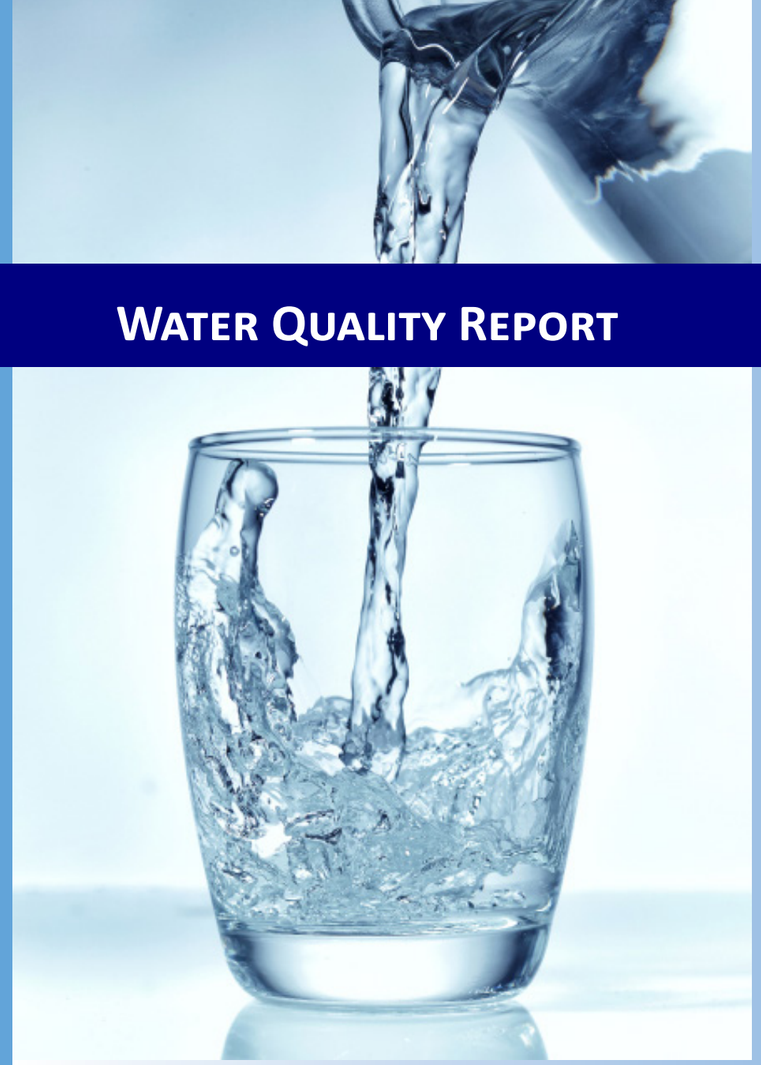
ND: not detectable at testing limits.

NA: not applicable.

Date Sampled: If sample date appears, the IEPA requires monitoring for the contaminant less than once per year because the concentrations do not frequently change. If sample date does not appear, monitoring was conducted in 2016.

Level Found: This column represents an average of sample result data collected during the sample period. In some cases, it may represent a single sample if only one sample was collected. For lead and copper, the level found equals the 90th percentile of all samples taken.

Range of Detections: This column represents a range of individual sample results, from lowest to highest, that were collected during the sample period.



WATER QUALITY REPORT

2016

Public Water System ID: IL0195500

INTRODUCTION

This 2016 Water Quality Report from the University of Illinois at Urbana-Champaign (U of I) provides information about the source of campus drinking water, contaminant testing, general health precautions, and how calendar year 2016 sample results compare to regulatory requirements. **The university is pleased to report that all United States Environmental Protection Agency (USEPA) and Illinois Environmental Protection Agency (IEPA) drinking water quality standards have been met, with no violations of maximum contaminant levels (MCLs).**

If you have any questions about this report or U of I drinking water quality, please contact Facilities & Services, Safety and Compliance at 217-265-9828 or via email at malvestu@illinois.edu. This report is also available on our website at **http://go.fs.illinois.edu/waterquality**.

In compliance with state and USEPA regulations, the university issues a report annually describing the quality of the drinking water. The purpose of this report is to increase understanding of drinking water standards and raise awareness of the need to protect your drinking water sources.

WATER INFORMATION SOURCES

Illinois American Water
www.illinoisamwater.com

United States Environmental Protection Agency
www.epa.gov/safewater

Safe Drinking Water Hotline
800-426-4791

Illinois Environmental Protection Agency
www.epa.state.il.us

Surf Your Watershed
Locate your watershed and a host of information.
www.epa.gov/surf

Envirofacts
U.S. environmental data.
www.epa.gov/enviro

LOCAL GROUPS INVOLVED IN WATER AND ENVIRONMENTAL ISSUES

Mahomet Aquifer Consortium
www.mahometaquiferconsortium.org

Prairie Rivers Network
217-344-2371
www.prairierivers.org

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

WHAT IS THE SOURCE OF U OF I DRINKING WATER?

The University of Illinois purchases drinking water from Illinois-American Water Company (IAWC), Champaign District. IAWC water is delivered through five separate metered feeds into the university water distribution system, which consists of approximately 46 miles of water main. The University distributes this water to the majority of campus buildings. However, some buildings are connected directly to the IAWC water distribution system. As such, the distribution system is considered a public water system. The following information about IAWC, Champaign District water supply is from their 2016 Annual Water Quality Report which is available by calling 800-538-1125 or by visiting their website; the address is **http://www.illinoisamerican.com**.

The source of supply for IAWC is ground-water. Currently 28 wells deliver water for treatment to three lime-softening plants: the Lincoln Avenue Plant, Urbana; the Mattis Avenue Plant, Champaign; and the Bradley Avenue Plant, west of Champaign. The wells are primarily located in two areas. The north well field taps the Glasford Aquifer and consists of seven wells that supply the Lincoln Avenue Plant. The west well field consists of 21 wells that draw from the Mahomet Sands Aquifer and supply water to all three plants. The wells range from 150 to 366 feet in depth and are protected from surface contamination by geologic barriers in the aquifers. An aquifer is a porous underground formation (such as sand and gravel) that is saturated with water.

SOURCE WATER ASSESSMENT

The IEPA has completed a source water assessment for the Champaign County system. In this report, IEPA indicates that the wells supplying Champaign County are not geologically sensitive. The IAWC's susceptibility to groundwater contamination was reviewed in the Well Site Survey Report from February 1991 and a source inventory conducted in 1999 by the Illinois Rural Water Association in cooperation with the IEPA. Based on the information contained in these documents, potential sources of groundwater contamination are present that could pose a hazard to groundwater pumped by the IAWC community water supply wells.

The IEPA has determined that IAWC Wells #35, #40, #41, #42, #43, #45, #46, and #47 are susceptible to inorganic chemical (IOC), volatile organic chemical (VOC) and synthetic organic chemical (SOC) contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data for the wells. The IEPA has made recommendations to further minimize the risk to the facility's groundwater supply. If you would like additional information on the source water assessment, please contact Safety and Compliance at 217-265-9828 or the Groundwater Section of the IEPA at 217-785-4787.

PROTECTING THE WATER YOU DRINK

In order to ensure that tap water is of high quality, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health as public water systems. IAWC's advanced water treatment processes are designed to reduce any such substances to levels well below any health concern. The university is required to test water in its distribution system for coliform, lead, copper, trihalomethanes, and haloacetic acids. IEPA requires 15 samples per month to be analyzed for coliform. In 2016, normal operations of the U of I water distribution system resulted in approximately 19 samples per month. The most recent testing results for coliform, lead, copper, haloacetic acids and total trihalomethanes (TTHM) are provided in the Data Summary table at the end of this Report.

GENERAL INFORMATION ABOUT ALL DRINKING WATER

The sources of drinking water (both tap 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 can dissolve naturally-occurring minerals and, in some cases, radioactive material. Water can also pick up substances resulting from the presence of animals or 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 and wildlife;
- ***Inorganic Contaminants***, such as salts and metals, which may be naturally occurring or result from urban storm water 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 storm water 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 storm water runoff and septic systems; and
- ***Radioactive Contaminants***, which may occur naturally or result from oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline at 800-426-4791.

IMPORTANT HEALTH CONSIDERATIONS

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA 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 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 USEPA Safe Drinking Water Hotline at 800-426-4791.

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.

USEPA and Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline at 800-426-4791.

RADON

Radon is a radioactive gas that mainly comes from the soil; however, some groundwater may also contain radon. The USEPA is proposing limits on radon in drinking water depending on other steps that are used to reduce radon from other indoor sources. Inhalation of radon gas has been linked to lung cancer. The contribution from drinking water is usually small compared to normal indoor levels. If you are concerned about radon in your home and would like information on how to have your home tested, contact the Champaign-Urbana Public Health Department at 217-352-7961 or the National Radon Hotline at 800-SOS-RADON.

LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. When your water source has not been used for several hours, you can minimize the potential for lead exposure by flushing your tap for thirty seconds to two 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 by calling the USEPA Safe Drinking Water Hotline at 800-426-4791 or at **http://www.epa.gov/safewater/lead**.

2016 DATA SUMMARY

The following table lists the contaminants that were detected in the water. The presence of contaminants does not necessarily indicate that the water poses a health risk. The data in this table represents a combination of the testing results on finished water from the distribution system and its parent supply, IAWC, Champaign District. The university monitors water daily at five separate metered feeds. Additionally, the university monitors water at eight points within the campus distribution system. IAWC monitors the parent water supply at points prior to entering the campus distribution system.