SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE
WATER QUALITY REPORT – 2016

To: SIUE Students, Faculty and Staff

The attached report summarizes the quality of water that we provided during the year 2016 including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with a safe and dependable supply of drinking water.

If you have any questions about this report or concerning your water system, please contact Ed Matecki (650-2258) at Facilities Management, Monday through Friday, 8 a.m. - 4 p.m.

WATER SUPPLY INFORMATION

The University water system receives water from the City of Edwardsville into a 400,000 gallon underground reservoir. Water is pumped from there through a system of underground mains serving the entire campus and into a 500,000 gallon elevated tank which maintains system water pressure. A second connection to the Edwardsville water system at the east edge of campus near Highway 157 provides us with a backup should the primary system experience trouble.

The Edwardsville water works system is a municipal utility owned by the City of Edwardsville. Water is obtained from a well field located near the water treatment plant which draws water from the American Bottoms Underground Aquifer. There are seven wells drilled to an average depth of approximately 114 feet. The water is filtered, softened and chemically treated with fluoride and chlorine.

SOURCE WATER ASSESSMENT

A Source Water Assessment Plan (SWAP) is now available from the City of Edwardsville. This plan is an assesment 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 Assesment Plan, our water system had a susceptibility rating of 'medium.' A complete copy of this assessment may be obtained from the City of Edwardsville by calling 618-692-7535.

IMPORTANT HEALTH INFORMATION

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 from their health care providers about drinking water. USEPA/CDC (Centers for Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline, 800-426-4791.

SUBSTANCES THAT MIGHT BE IN DRINKING WATER

To ensure that tap water is safe to drink, the USEPA prescribes regulations limiting the amount of certain contaminants in water systems.
U. S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must providethe 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. 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. Possible contaminants consist of:

- 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 can 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 cbemicals which are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff and septic systems;
- Radioactive contaminants, which may be naturally occurring or be the result of oils and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling eeh USEPA's Safe Drinking Water Hotline, 800-426-4791.

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 material and components associated with service lines and home plumbing. There are no underground lead service lines on the Edwardsville campus. The City of Edwardsville 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 drinking water and wish to have your water tested, you may contact the Madison County Environmental Control lab at (618) 296-5234. 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.gove/safewater/lead.
As the owner of our campus water system, the University is required to regularly test the water. Testing performed in August 2016 found that water in five buildings contained lead exceeding the federal and state action level of 15 parts per billion. As previous years of testing had found only isolated occurrences of such a level of lead, the University conducted extensive additional testing in campus buildings. Water containing lead over the action level was found to be limited to specific locations in the five buildings. All other sampes taken on campus were below the action level for lead.
As a result, sinks in a mechanical room and several custodial closets were labled not to be used for drinking water, and three drinking foundations have been or will be replaced. The University also conducted additional testing for the campus water system in accordance with the requirements of the Illinois Environmental Protection Agency. As expected, no lead was found in the water provided by the City of Edwardsville. Based on an evaluation of the water chemistry, however, EPA guidelines recommended additional treatment to reduce the potential to dissolve or corrode lead from building plumbing fixtures. The city water planst increased the corrosion control treatment of the water supplied to the campus. Follow-up water testing was conducted in February 2017. Of the more than 50 samples taken in 22 buildings, at only two locations was lead found to exceed the action level. The two locations were drinking fountains that have been permanently turned off and, as previously noted, will be replaced. Additional testing is planned for Fall 2017 to continue monitoring the campus water quality and the effectiveness of the increased corrosion control treatment.

WATER QUALITY DATA TABLE

The 2015 Water Quality Data Table, which follows, was prepared with data supplied by the Illinois Environmental Protection Agency. There are two sections to the Table. The first shows data drawn from the parent source, as detailed in the City of Edwardsville 2015 Water Quality Report. The second provides data drawn directly from samples taken on the SIUE campus. The Water Quality Data Table lists detected water contaminants and their typical sources, the maximum contaminant level goal (MCLG), the maximum contaminant tlevel (MCL), the level of contaminant concentration found, the range of detection and dates of sampling. Undetected water contaminants are not liested in the Table. Sampling dates ranging back to 2014 show Illinois requires us to monitor some contaminants less than once per year because their concentrations do not change frequently.

2015 WATER QUALITY DATA—CITY OF EDWARDSVILLE SAMPLING

CONTAMINANTS (units) *Typical Source of Contaminant*	MCLG	MCL	Amount Detected	Range of Detection	Violation	Date of Sample
INORGANIC CONTAMINANTS						
BARIUM (ppm) *Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.*	2	2	0.072	0.072 – 0.072	No	2015
FLUORIDE (ppm)[1] *Erosion of natural deposits; Water additive, which promotes strong teeth. Discharge from fertilizer and aluminum factories.*	4	4	1.14	1.14 – 1.14	No	2015
NITRATE (ppm) *Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.*	10	10	1.0	1.0 - 1.0	No	2016
ARSENIC *Erosion of natural deposits, runoff.*	0	0	1	1 -1	No	2015
MANGANESE *Erosion of natural deposits.*	150	150	13	13 - 13	No	2015
ZINC *Naturally occuring; discharge from metal.*	5	5	0.018	0.018 - 0.018	No	2015
COMBINED RADIUM 226/228 *Naturally occuring; discharge from metal.*	0	5	1.328 pCi/L	1.328 - 1.328	No	2014
GROSS ALPHA *Excluding radon and uranium – erosion of natural deposits.*	0	15	2.11 pCi/L	2.11 - 2.11	No	2014
STATE REGULATED CONTAMINANTS						
SODIUM (ppm)[3] *Excluding radon and uranium – erosion of natural deposits.*	N/A	N/A	140	140 – 140	No	2015

2016 WATER QUALITY DATA – SIUE SAMPLING

DISINFECTION/DISINFECTANT BY-PRODUCTS						
CHLORINE (ppm)	MRDLG=4	MRDL=4	0.9	0.5 - 1	No	2016
HALOACETIC ACIDS [HAA'S] (ppb) *By-product of drinking water chlorination.*	N/A	60	6	6.3 - 6.3	No	2016
TTHM's [TOTAL TRIHALOMETHANES] (ppb) *By-product of drinking water chlorination.*	N/A	80	51	56.6 - 56.6	No	2015
INORGANIC CONTAMINANTS						
COPPER (ppm) *Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.*	1.3	AL=1.3	1.03 (90th % tile)	1 exceeding AL	No	2016
LEAD (ppb) *Corrosion of household plumbing systems; erosion of natural deposits.*	0	AL=15	25.7	3 exceeding AL	No	2016

Water Quality Data Table Footnotes

[1]*FLUORIDE*
Fluoride is added to the water supply to help promote strong teeth. The Illinois Dept. of Public Health recommends an optimal fluoride level of 0.9 to 1.2 ppm.

[2]*UNREGULATED CONTAMINANTS:*
Maximum contaminant levels (MCL's) for these contaminants have not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring these contaminants is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

[3]*SODIUM*
There is not a state or federal MCL for sodium. 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, you should consult a physician about this level of sodium in the water.

WATER QUALITY DATA DEFINITION OF TERMS:
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. MCGLs 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 MCGLs 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. In most cases, the Level Found or Amount Dctected column represents an average of sample result data collected during the sample year. The Range of Detection column represents a range of individual sample results, from lowest to highest that were collected during the sample year.

Abbreviations: nd – not detectable at testing limits. N/A – not applicable. ppm – parts per million or milligrams per liter. ppb – parts per billion or micrograms per liter.