

## **SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE WATER QUALITY REPORT – 2003**

To: SIUE Students, Faculty and Staff

This year as in years past your tap water met all United States Environmental Protection Agency (USEPA) and state drinking water health standards. We are able to report that your water system had no violation of a contaminant level or of any other water quality standard during 2003. The attached report summarizes the quality of water that we provided during the year 2003 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) or Bob Washburn (650-2560) at Facilities Management, Monday through Friday between the hours of 8 a.m. and 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**

The Illinois EPA has identified eight potential sources of contamination that could pose a hazard to the groundwater used by Edwardsville's community water supply wells. These potential sources include two municipal disposal facilities, a furniture refinisher, a recycling facility, a sanitary sewer and three above ground fuel storage tanks. The continuous monitoring of these sources ensures that contamination does not occur. Information provided by the Leaking Underground Storage Tank and Remedial Project Management sections of the Illinois EPA indicates there are additional sites in Edwardsville with ongoing remediation. 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 about drinking water from their health care providers. 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 (1-800-426-4791).

## SUBSTANCES THAT MIGHT BE IN DRINKING WATER

To insure that tap water is safe to drink, the USEPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U. S. Food and Drug Administration 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.

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 chemicals, 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 oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

## WATER QUALITY DATA TABLE

The 2003 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 2003 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 level (MCL), the level of contaminant concentration found, the range of detection and date of sampling. Undetected water contaminants are not listed in the Table. Sampling dates ranging back to 2001 are shown since Illinois requires us to monitor some contaminants less than once per year because their concentrations do not change frequently.

**2003 WATER QUALITY DATA—CITY OF EDWARDSVILLE SAMPLING**

<b>CONTAMINANTS (units)</b> <i>Typical Source of Contaminant</i>	<b>MCLG</b>	<b>MCL</b>	<b>Amount Detected</b>	<b>Range of Detection</b>	<b>Violation</b>	<b>Date of Sample</b>
<b>INORGANIC CONTAMINANTS</b>						
BARIUM (ppm) <i>Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.</i>	2	2	0.084	0.084 – 0.084	No	2001
COPPER (ppm) <i>Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.</i>	1.3	AL=1.3	0.52	0 above AL	No	2002
FLUORIDE (ppm) <sup>1</sup> <i>Erosion of natural deposits; Water additive, which promotes strong teeth. Discharge from fertilizer and aluminum factories.</i>	4	4	1.17	1.17 – 1.17	No	2003
NITRATE & NITRITE (ppm) <i>Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.</i>	10	10	0.89	0.89 – 0.89	No	2003
<b>DISINFECTION/DISINFECTANT BY-PRODUCTS</b>						
HALOACETIC ACIDS [HAA'S] (ppb) <i>Byproduct of drinking water chlorination.</i>	N/A	60	6	6 - 6	No	2003
TTHM's [TOTAL TRIHALOMETHANES] (ppb) <i>By-product of drinking water chlorination.</i>	N/A	80	15.5	15.5 – 15.5	No	2003
<b>UNREGULATED CONTAMINANTS<sup>2</sup></b>						
BROMODICHLOROMETHANE (ppb) <i>By-product of drinking water chlorination.</i>	N/A	N/A	5.8	5.8 - 5.8	No	2003
BROMOFORM (ppb) <i>Discharge from manufacturing plants; used to dissolve dirt and grease</i>	N/A	N/A	1.0	1.0 – 1.0	No	2003
CHLOROFORM (ppb) <i>Used as a solvent for fats, oils, rubber, resins; a cleansing agent found in fire extinguishers.</i>	N/A	N/A	5.7	5.7 – 5.7	No	2003
DIBROMOMETHANE (ppb) <i>Used as a chemical reagent; an intermediate in organic synthesis.</i>	N/A	N/A	4.0	4.0 – 4.0	No	2003
SULFATE <i>Erosion of naturally occurring deposits.</i>	N/A	N/A	79.2	79.2 – 79.2	No	2001
<b>STATE REGULATED CONTAMINANTS</b>						
SODIUM (ppm) <sup>3</sup> <i>Erosion of naturally occurring deposits; used as a water softener.</i>	N/A	N/A	99	99 – 99	No	2001

## 2003 WATER QUALITY DATA—SIUE SAMPLING

CONTAMINANTS (units) <i>Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Level Found</i>	<i>Range of Detection</i>	<i>Violation</i>	<i>Date of Sample</i>
<b>INORGANIC CONTAMINANTS</b>						
COPPER (ppm) <i>Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.</i>	1.3	AL=1.3	0.2	0 exceeding AL	No	2001
LEAD (ppb) <i>Corrosion of household plumbing systems; erosion of natural deposits.</i>	0	AL=15	7	0 exceeding AL	No	2001

### Water Quality Data Table Footnotes

<sup>1</sup>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.

<sup>2</sup>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.

<sup>3</sup>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 Detected** 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.