

June 26, 2009

### **Statement Regarding Lake of the Ozarks Water Quality Study**

JEFFERSON CITY, MO – Missouri Department of Natural Resources Director Mark N. Templeton released the following statement:

“The first round of Lake of the Ozarks water quality study results for 2009 found elevated levels of E. coli at several locations. Heavy rainfall the day before some of the sampling and early the morning of some of the sampling may have contributed to the higher levels, as subsequent monitoring had a lower number of elevated readings.

The 2009 sampling consists of over 100 sites along the Niangua arm, Linn Creek, and Hurricane Deck. Beginning in May and alternating each month through October, half of the sites will be tested each month during the six-month period. Each site will be sampled three times during this sampling season.

Twenty-nine of the 55 sites that were sampled on May 26 found E. coli levels above the U.S. Environmental Protection Agency’s recommended single sample maximum level of 235 colonies per 100 milliliters. Five of the 59 sites that were sampled on June 22 had elevated results, but were below the EPA recommended single sample maximum level. Heavy rainfall the day before and early the morning of May 26<sup>th</sup> may have contributed to the elevated levels on that day; there was not heavy rainfall on June 22, when fewer sites reported elevated results.

Runoff from heavy rains may transport waste found in soil from faulty septic tanks or sewer systems, wastewater treatment facilities, large concentrations of waterfowl, and animal waste and manure. The Department will conduct further investigation in coves that had the highest levels to determine what, if any, other factors may be contributing to the elevated readings and will take appropriate action, as necessary. Also, the Department will include turbidity analysis, which monitors water clarity and is a reflection of sedimentation levels in the water, as part of its sampling protocol for this project going forward.

In the third year of a five-year study, the water quality study is designed to establish a baseline of information regarding the overall health of the lake for comparison purposes in the future. When completed, the water sampling will include coves from Bagnell Dam to Truman Dam.

The study is a cooperative effort led by the Department of Natural Resources and includes the Lake of the Ozarks Watershed Alliance, which provides trained volunteers to collect the water samples, Ameren UE, which pays \$15,000 per year for the five-year study, and the Department of Conservation.

The state's adopted standard for the Lake of the Ozarks water quality study is a geometric mean, a statistical method used to analyze data collected over a period of time, to determine the quality of the water. Based on all of the sample results that are taken during the recreational season which runs May – October, a sampled geometric mean is determined for the year. Each monthly sample that is taken is just a piece of the entire study.

Once the sampled geometric mean is determined at the end of the season it is then compared against the geometric mean that is established by the EPA and adopted by the Department. This geometric mean is 126 E. coli colonies per 100 milliliters over the course of the recreational season. For illustrative purposes, it is estimated eight swimmers per 1,000 may develop some form of gastrointestinal disease from swimming in water with E. coli at a level of 126 E. coli colonies per 100 milliliters. In 2007 the sampled geometric mean for the Lake of the Ozarks was 5 E. coli colonies per 100 milliliters of water; in 2008 the sampled geometric mean was 7 E. coli colonies per 100 milliliters of water. Both of these were well below the adopted geometric mean of 126 E. coli colonies per 100 milliliters.”

###