



Water - Essential for Life

West Shelby Water District Water Quality Report for year 2012

KY1060457

Post Office Box 39
Simpsonville, KY 40067
Meetings: District Office, 7101 Shelbyville Rd, Simpsonville, KY
Meeting Dates and Time: Third Thursday of each Month 8:30a.m.

Manager: **Steve Eden**
Phone: **502-722-8944**
CCR Contact: **Lisa Didier**
Phone: **502-722-8944**

This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide our customers with a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

Your drinking water is currently purchased from two sources Louisville Water Co. (LWC) and Shelbyville Municipal Water & Sewer. The intake for the LWC is located on the Ohio River near the Zorn pumping station on Zorn Avenue. The Ohio River is classified as surface water. The source water assessment plan looks at LWC's susceptibility to potential sources of contamination. The plan identified spills of hazardous materials on the Ohio River and permitted discharges of sanitary sewers as the highest contamination risks. In Jefferson Co., land use in the protection area is primarily zoned for residential and commercial use, with only a few industrial sites. In Oldham and Trimble Counties land use is primarily zoned for residential and agricultural use. Therefore, source water contaminant risks are relatively low. LWC maintains preparedness and disaster services plan to address potential contaminant risks. To view the entire source water assessment and protection plan, contact Jim Smith at 502-569-3600. This report is also available upon request at our District office, 7101 Shelbyville Rd., Simpsonville, KY 40067, phone (502) 722-8944.

Shelbyville Municipal Water (SMW) utilizes water from Guist Creek Lake. The lake is classified as surface water. The Source Water Assessment and Protection Plan is complete. A summary of that plan with potential contaminant sources within the Guist Creek Lake watershed includes four (4) underground petroleum sites and one above ground petroleum storage tank. In addition, there were two bridges; one inactive landfill, which is closed to the public and no longer accepts waste, and one site (BellSouth), which uses hazardous waste materials. Other potential contaminant sites are concerned with major roads and commercial activities and all are ranked medium in the susceptibility analysis table. That plan is available for inspection at Kentuckiana Regional Planning and Development Agency (502-266-6084), located at 11520 Commonwealth Drive, Louisville, KY 40299. This report is also available during regular business hours at our District office, 7101 Shelbyville Rd., Simpsonville, KY 40067, phone (502) 722-8944, upon request.

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and 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 may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities). In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

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. 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).

Some or all of these definitions may be found in this report:

Maximum Contaminant Level (MCL) - 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.
Maximum Contaminant Level Goal (MCLG) - 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.
Maximum Residual Disinfectant Level (MRDL) - the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG) - 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.
Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.
Not Applicable (N/A) - does not apply.
Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in \$10,000.
Parts per billion (ppb) - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
Picocuries per liter (pCi/L) - a measure of the radioactivity in water.
Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.
Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.
Variations & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.
Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.

Information About Lead:

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 materials and components associated with service lines and home plumbing. Your local public water system 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 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 from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, 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. Some of the data in this table, though representative, may be more than one year old. Unless otherwise noted, the report level is the highest level detected.

A=(LWC) B.E. Payne Water Treatment Plant / B=(SMW) Shelbyville Municipal Water / C=(WSWD) West Shelby

| | Allowable Levels | Source | Highest Single | Lowest | Violation | Likely Source of Turbidity |
|--|--|--------|----------------|-----------|-----------|----------------------------|
| | | | Measurement | Monthly % | | |
| Turbidity (NTU) TT | No more than 1 NTU* | A= | 0.11 | 100 | No | Soil runoff |
| * Representative samples of filtered water | Less than 0.3 NTU in 95% monthly samples | B= | 0.29 | 100 | No | |

Regulated Contaminant Test Results

| Contaminant [code] (units) | MCL | MCLG | Source | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination |
|----------------------------|-----|------|--------|--------------|--------------------|----------------|-----------|--------------------------------|
|----------------------------|-----|------|--------|--------------|--------------------|----------------|-----------|--------------------------------|

Radioactive Contaminants

| | | | | | | | | |
|-------------------------------|----|---|----|------|--------------|------|----|-----------------------------|
| Alpha emitters [4000] (pCi/L) | 15 | 0 | A= | 2.1 | 2.1 to 2.1 | 2010 | No | Erosion of natural deposits |
| | | | B= | 0.02 | 0.02 to 0.02 | 2010 | No | |
| Combined radium (pCi/L) | 5 | 0 | A= | 0.28 | 0.28 to 0.28 | 2010 | No | Erosion of natural deposits |
| | | | B= | 0.54 | 0.54 to 0.54 | 2010 | No | |
| Uranium (µg/L) | 30 | 0 | A= | 0.29 | 0.29 to 0.29 | 2010 | No | Erosion of natural deposits |
| | | | B= | 0.3 | 0.3 to 0.3 | 2010 | No | |

Inorganic Contaminants

| | | | | | | | | |
|--|---------|-----|----|------|--------------|------|----|---|
| Copper [1022] (ppm) sites exceeding action level 0 | AL= 1.3 | 1.3 | C= | 0.22 | 0 to 0.62 | 2011 | No | Corrosion of household plumbing systems |
| Fluoride [1025] (ppm) | 4 | 4 | A= | 1.1 | 0.84 to 1.1 | 2012 | No | Water additive which promotes strong teeth |
| | | | B= | 1.47 | 0.08 to 1.47 | 2012 | No | |
| Nickel (ppm) (US EPA remanded MCL in February 1995.) | N/A | N/A | A= | 1.9 | 1.9 to 1.9 | 2010 | No | N/A |
| Nitrate [1040] (ppm) | 10 | 10 | A= | 0.3 | 0.1 to 0.3 | 2010 | No | Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits |
| | | | B= | 2.17 | 0 to 2.17 | 2010 | No | |

Synthetic Organic Contaminants including Pesticides and Herbicides

| | | | | | | | | |
|--|---|---|----|------|--------------|------|----|--|
| Atrazine [2050] (ppb) | 3 | 3 | B= | 0.6 | 0.096 to 0.6 | 2012 | No | Runoff from herbicide used on row crops |
| Di(2-ethylhexyl)phthalate [2039] (ppb) | 6 | 0 | B= | 0.55 | 0 to 0.55 | 2012 | No | Discharge from rubber and chemical factories |

Disinfectants/Disinfection Byproducts and Precursors

| | | | | | | | | |
|---|-----|-----|----|-------|---------------|-----|----|-----------------------------------|
| Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios) | TT* | N/A | A= | 1.00 | 1.00 to 1.00 | N/A | No | Naturally present in environment. |
| | | | B= | 1.869 | 1.15 to 3.317 | N/A | No | |

*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be 1.00 or greater for compliance.

| | | | | | | | | |
|--|----------|-----------|----|------------------------|--------------|-----|----|--|
| Chloramines (ppm) | MRDL = 4 | MRDLG = 4 | C= | 1.45 (highest average) | 0.36 to 2.27 | N/A | No | Water additive used to control microbes. |
| HAA (ppb) (all sites) [Haloacetic acids] | 60 | N/A | A= | 8.8 | 7.4 to 10.6 | N/A | No | Byproduct of drinking water disinfection |
| | | | B= | 28 | 5 to 65 | | | |
| TTHM (ppb) (all sites) [total trihalomethanes] | 80 | N/A | A= | 15.4 | 9.9 to 22.2 | N/A | No | Byproduct of drinking water disinfection |
| | | | B= | 29.2 | 11 to 65.6 | | | |

Other Contaminants

| | | | | | | | | |
|-----------------------------|---|---------------|--|--------------------|------------------|-----|--|------------------------------|
| Cryptosporidium [oocysts/L] | 0 | TT | | 3 | 24 | N/A | | Human and animal fecal waste |
| | | (99% removal) | | (positive samples) | (no. of samples) | | | |

Our water system violated one or more drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 04/01/2012-06/30/2012 we did not complete all monitoring for DBPs TTHM & HAA5 and therefore cannot be sure of the quality of our drinking water during that time.

There is nothing you need to do at this time. You do not need to use an alternative (e.g., bottled) water supply.

The table below lists the contaminants we did not properly test for during the last year, how often we are supposed to sample for these contaminants and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were taken.

| contaminant | required sampling frequency | number of samples taken | samples should have been taken | when samples were or will be taken |
|-------------|-----------------------------|-------------------------|--------------------------------|------------------------------------|
| TTHM | Quarterly | 0 | 1 | N/A |
| HAA5 | Quarterly | 0 | 1 | N/A |

What happened? Who is at risk? What is being done?

We failed to submit an adequate number of DBP samples for the compliance period 04/01/2012-06/30/2012. We are required to collect 2 routine samples per quarter. No samples were received by DWB (Drinking Water Branch). There were no health effects due to this oversight. Remedial actions included performing public notification and the required certification.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.