

# REPORT TO CONSUMERS ON WATER QUALITY FINDINGS FOR 2014

# PLEASE READ

## IMPORTANT

This is an annual report delivered by the Frankfort Plant Board (KY0370143). It meets the federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports" and contains information on the source of our water, its constituents, and the health risks associated with any contaminant. Safe water is vital to our community. Please read this report carefully, and, if you have questions, call Shannon Young at (502) 352-4340, or e-mail her at [young@fewpb.com](mailto:young@fewpb.com). Board meetings regarding decisions about our drinking water are typically held the third Tuesday of every month. Please call (502) 352-4372 for additional information and to verify the date & location of the next opportunity to participate.

## ATTENCION

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

The Frankfort Plant Board is a member of the Partnership for Safe Water, a national initiative to help achieve operational excellence in water treatment. The partnership was developed through cooperation among the U.S. Environmental Protection Agency (EPA), states, and water supply associations to provide better protection for consumers from microbial contaminants that can cause intestinal illness.

Find out more about the Frankfort Plant Board online at [www.fpb.cc](http://www.fpb.cc), and, for further information, see U.S. Environmental Protection Agency (EPA) water information at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).

Water Quality Data for community water systems throughout the United States is available at [www.waterdata.com](http://www.waterdata.com).



# HOW TO READ THE TABLES

These tables show the results of our water quality analysis for the calendar year 2014. Some contaminants are monitored less frequently, and the most recent testing, done in accordance with the regulations, is shown in parenthesis. Every regulated contaminant that we detected in the water, even in the most minute trace, is listed here. The regulated contaminants table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement.

## WATER FINDINGS

### REGULATED CONTAMINANTS

| Contaminant                   | Unit | MCL    | MCLG | Highest Detected Level | Range       | Major Sources  | Violation |
|-------------------------------|------|--------|------|------------------------|-------------|--|-----------|
| <b>INORGANIC CONTAMINANTS</b> |      |        |      |                        |             |  |           |
| Barium                        | ppm  | 2      | 2    | 0.018                  | -           | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.                                | NO        |
| Copper (2013)                 | ppm  | AL=1.3 | 1.3  | 0.29 <sup>1</sup>      | .001 - 0.46 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from preservative.                          | NO        |
| Fluoride                      | ppm  | 2      | 2    | .95                    | 0.78 - .93  | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. | NO        |
| Nitrate                       | ppm  | 10     | 10   | 0.90                   | 0.1 - 0.9   | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.                               | NO        |
| Arsenic                       | ppb  | 10     | 0    | 2.0                    | -           | Erosion of natural deposits; runoff from glass and electronics production wastes.  | NO        |
| Lead (2013)                   | ppb  | AL=15  | 0    | ND                     | ND - 7      | Corrosion of household plumbing systems; Erosion of natural deposits.  | NO        |

<sup>1</sup>Value shown is the 90 percentile. Zero homes exceeded the action levels for both lead and copper.

### Microbiological Contaminants

|                      |  |                       |     |                              |             |                                   |    |
|----------------------|--|-----------------------|-----|------------------------------|-------------|-----------------------------------|----|
| Total Coliforms      | % positive samples                                   | 5% of monthly samples | 0   | 1.6%                         | 0-1.6%      | Naturally present in environment. | NO |
| Turbidity            | NTU  | TT <sup>2</sup>       | N/A | 0.21                         | 0.04 - 0.21 | Soil runoff.                      | NO |
| Total Organic Carbon | Measured as ppm but reported as a ratio <sup>3</sup> | TT <sup>3</sup>       | N/A | 1.25 (lowest annual average) | 1.25 - 1.48 | Naturally present in environment. | NO |

<sup>2</sup>Greater than 95% of samples must be <0.3NTU and never more than 1 NTU. 100% was the lowest monthly percent. Turbidity is a measure of the quality of the water and the effectiveness of the filtration system.

<sup>3</sup>Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be at least 1.00 to meet the TT.

### VOLATILE ORGANIC CONTAMINANTS

|                               |     |        |         |                  |           |  |    |
|-------------------------------|-----|--------|---------|------------------|-----------|--|----|
| Total Tri-halomethanes (THMs) | ppb | 80     | N/A     | 58 <sup>4</sup>  | 15-60     | By-product of drinking water chlorination. | NO |
| Haloacetic acids (HAAs)       | ppb | 60     | N/A     | 51 <sup>4</sup>  | 10-46     | By-product of drinking water chlorination. | NO |
| Chloramines                   | ppm | MRDL=4 | MRDLG=4 | 2.4 <sup>4</sup> | 1.0 - 3.3 | Water additive used to control microbes.   | NO |

<sup>4</sup>Highest running annual average.

### UNREGULATED CONTAMINANTS

| Contaminant      | Highest Level Found in the Distribution System | Highest Level Found at the Entry Point to the Distribution System |
|------------------|--|---|
| Chromium (total) | .292 ppb                                       | 9.70 ppb  |
| Molybdenum       | 1.28 ppb                                       | 1.37 ppb  |
| Strontium        | 285 ppb  | 274 ppb   |
| Chromium-6       | .15 ppb  | .21 ppb   |
| Chlorate         | 344 ppb  | 296 ppb   |
| Vandium          | .368 ppb                                       | .368 ppb  |

The Frankfort Plant Board is participating in the U.S. Environmental Protection Agency's (EPA) third round of the Unregulated Contaminant Monitoring Rule (UCMR3). We will monitor unregulated contaminants for a year to help the EPA determine the occurrence of these contaminants in drinking water and whether or not they need to be regulated for protection of public health. The full report is available for inspection by contacting Shannon Young at (502) 330-4209 or [syoung@fewpb.com](mailto:syoung@fewpb.com).

# WATER SOURCE

The Frankfort Plant Board Water Treatment Facility at 200 Coffeetree Road, Frankfort, KY, withdraws surface water from pool #4 on the Kentucky River. The final source water assessment has been completed and is available in the Franklin County Water Supply Plan. The plan is available for inspection at the Frankfort Plant Board Water Treatment Plant.

An analysis of the susceptibility of our water supply to contamination indicates that this susceptibility is generally moderate. There are, however, a few areas of high concern. Several highway bridges and major roads occur in the immediate vicinity of the intake. An accidental release of toxic materials from a nearby bridge or road could pose an immediate threat to Frankfort's intake. Other areas of concern that occur in the immediate vicinity of the intake include land used for agricultural purposes, firms that use Tier II hazardous chemicals, a Superfund site, a hazardous waste generator and/or transporter, sewer lines and a KPDES permitted discharger.

Within the greater watershed area, there are numerous permitted operations and activities and other potential contaminant sources of moderate concern that cumulatively increase the potential for the release of contaminants within the area. These potential contaminant sources include everything from underground storage tanks, to power line rights-of-way that may be treated with herbicides, to active and inactive landfills.

For information on the Kentucky River, contact the

Kentucky River Authority  
@ [finance.ky.gov](http://finance.ky.gov) or  
Kentucky River Authority  
70 Wilkinson Blvd.  
Frankfort, KY 40601  
(502) 564-2866

## KEY TO TABLES

**MCL:** Maximum Contaminant Level. The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG:** Maximum Contaminant Level Goal. 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.

**MRDL:** Maximum Residual Disinfectant Level. 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.

**ppm:** parts per million, or milligrams per liter (mg/l) which is equivalent to 1 inch in 16 miles.

**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.

**AL:** Action Levels. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**TT:** Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

**ND:** Not detected/below detectable limit.

**NTU:** Nephelometric Turbidity Units

**ppb:** parts per billion, or micrograms per liter ( $\mu\text{g/l}$ ) which is equivalent to 1 inch in 16,000 miles.

**DBPR:** Disinfection By-Products Rule

## ADDITIONAL HEALTH INFORMATION

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 radioactive material and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA 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

[Environmental Protection Agency's Safe Drinking Water Hot line 800-426-4791.](#)

### 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. The Frankfort Plant Board 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 Hot line or @ [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

### SPECIAL HEALTH INFORMATION FOR THE IMMUNO-COMPROMISED

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. 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 Hot Line 800-426-4791.