

# 2018 ANNUAL DRINKING WATER QUALITY REPORT

## for

# SOUTHEAST DAVIESS COUNTY WATER DISTRICT

Public Water System ID # KY0300387

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually ensure the quality of your water. Your water does not come from the Ohio River, but rather it starts out by being drawn by Owensboro Municipal Utilities (OMU) from an underground aquifer located along the Ohio River. The water is naturally filtered to this aquifer as it passes down through layers of the earth. Once OMU draws the water from the aquifer, it then aerates, softens, chlorinates, filters, and adds fluoride and polyphosphate to treat the groundwater to the applicable standards which represent the water you drink and use every day. We, in turn, pump the water from OMU and distribute it to you; our valued customer.

We're pleased to report that your drinking water is safe and meets Federal and State requirements. This report will show our water quality and what it means.

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: A) Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. B) Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater 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, urban stormwater runoff, and residential uses. D) 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 stormwater runoff, and septic systems. E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, U.S. 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 that shall provide the same protection for public health.

**Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).**

If you want to learn more about our water system, you may obtain a Source Water Assessment from the Green River Area Development District at 3860 U. S. Highway 60 West. The Source Water Assessment rated the water supply's susceptibility to potential sources of contamination within the wellhead protection area to be moderate. There are a total of 2,024 potential sources of contamination with the following susceptibility rankings: 263 high, 1,746 medium, and 15 low. The sources of high potential impact include above ground storage tanks, underground storage tanks, an automotive related facilities, laundry facilities, petroleum suppliers, and industrial land use. Some moderate potential sources of contamination include professional offices, food service facilities, hair care facilities, medical or veterinary facilities, a printer, and a cemetery. This is a summary of the susceptibility analysis. The complete Susceptibility Analysis Report is also available at Owensboro Municipal Utilities and at the Kentucky Division of Water.

Spanish (Español) Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo o hable con alguien que lo entienda bien.

The Southeast Daviess County Water District routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of both OMU's and our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2018. Items 1,2,3,4,& 5 are results from OMU's testing while items 6, 7, & 8 are a result of our testing. As authorized and approved by the EPA, the state has reduced monitoring requirements for certain contaminants to less 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, is more than one year old.

## 2018 WATER QUALITY INFORMATION

PWSID # Southeast Daviess County Water District : KY 0300387 OMU : KY0300336							
Contaminant (units)	MCL	Highest Single Measurement		Lowest Monthly %	Violation	Likely Source of Contamination	
<b>PHYSICAL PROPERTIES</b>							
1. Turbidity (NTU) TT * Representative samples of filtered water	No more than 1 NTU Less than 0.3 NTU in 100% of monthly samples	0.18		100	No	Lime addition in water treatment process Soil runoff	
Contaminant [code](units)	MCL	MCLG	Report Level	Range	Date of Sample	Violation	Likely Source of Contamination
<b>RADIOACTIVE CONTAMINANTS</b>							
2. Alpha Emitters [4000](pCi/L)	15	0	3	3 - 3	Mar-15	No	Erosion of natural deposits
<b>INORGANIC CONTAMINANTS</b>							
3. Arsenic [1005] (ppb)	10	0	1.12	0 to 1.12	Jun-17	No	Natural erosion; runoff from orchards or glass and electronics production wastes
4. Barium [1010] (ppm)	2	2	.019	.010 to .019	Jun-17	No	Drilling wastes; metal refineries erosion of natural deposits
5. Fluoride [1025] (ppm)	4	4	0.71	0.67 to 0.71	Jun-17	No	Water additive which promotes strong teeth
<b>DISINFECTANTS / DISINFECTION BYPRODUCTS AND PRECURSORS</b>							
6. Chlorine (ppm)	MRDL = 4.0	MRDLG = 4.0	Highest running annual avg. = 1.29	Monthly range .88 to 1.71	N/A	No	Water additive used to control microbes
7. HAA 5(ppb) (individual sites) (Haloacetic acids)	60	N/A	10.40 (Highest LRAA)	2.40 to 10.90 (range of system sites)	N/A	No	By-product of drinking water chlorination
8. TTHM (ppb) (individual sites) (Total trihalomethanes)	80	N/A	66.63 (Highest LRAA)	16.20 to 53.40 (range of individual sites)	N/A	No	By-product of drinking water chlorination
<p>Definitions: <b>MCL</b>: Maximum Contaminant Level, or 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. <b>MCLG</b>: 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. <b>MRDL</b>: 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. <b>MRDLG</b>: 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 disinfections to control microbial contaminants. <b>AL</b>: Action Level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Abbreviations: <b>ppm</b>: parts per million or milligrams per liter. <b>ppb</b>: parts per billion or micrograms per liter. <b>NTU</b>: Nephelometric Turbidity Unit, used to measure the cloudiness in drinking water. <b>TT</b>: Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water. <b>pCi/L</b>: picuries per liter, a measure of the radioactivity in water <b>N/A</b>: Not Applicable. <b>LRAA</b>: Locational Running Annual Average. <b>≤</b>: Less than.</p>							

#### About the table:

- The first thing to note is that the Southeast Daviess County Water District did not have any violation of contaminants which exceeded the MCL throughout 2018.
- Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity is a measure of treatment performance and is regulated as a treatment technique. Turbidity is measured in nephelometric turbidity units (NTU), and is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- Total Coliform Bacteria and Fecal Coliform and E. coli - The Water District takes 20 samples a month from various sites located throughout the District. We're pleased to report that no sample taken by the Water District tested positive for these contaminants in 2018.
- Copper and Lead - The State of Kentucky requires these contaminants to be tested less periodically because the concentrations of these contaminants are not expected to vary significantly from year to year. Copper and Lead was tested in 2018 and will be tested again in 2021. The contaminants are not listed in the table because the results were below the detection limit.
- 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 Southeast Daviess County Water District 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>.
- ppm - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- ppb - one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
- Alpha emitters health effects - Certain minerals are radioactive and emit a form of radiation known as alpha radiation. Some people who drink alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
- Arsenic health effects – Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. Information on arsenic in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safety Drinking Water Hotline or at <http://www.epa.gov/safewater/arsenic>.
- Barium health effects – Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure. Information on barium in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://water.epa.gov/drink/contaminants/basicinformation/barium.cfm>.
- MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day for a lifetime to have a one-in-a-million chance of having the described health effect.

This report will not be sent to individual customers. It will be available at our office upon request. We are required to provide every consumer of our water access to this report. Therefore, if you are not the end user of our water, such as the landlord, business owner, or anyone else who receives the billing but is not the water consumer, we ask that this report be distributed or posted for viewing to all end users for their information purposes. Please come by or call the District office if you need more copies.

If you have any questions about this report or concerning your water utility, please contact Keith Krampe, Office Manager, at the District office at (270) 685-5594 any time Monday through Friday from 8:00 AM - 5:00 PM. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Public Board meetings. They are usually held on the second Tuesday of each month at noon at the Ole South Restaurant on Highway 54. Please call the office to confirm a definite date for any of our upcoming meetings. Thank you for your time.

\*\*\*We now offer AUTOMATIC BANK DRAFT for your monthly water payments. Please call the office at (270) 685-5594 for information on how you can set up your account for this service.

\*\*\*We also offer debit and credit card payments through our website [www.southeastdaviesswater.org](http://www.southeastdaviesswater.org). There is a \$ 2.25 charge for payments up to \$ 100.00. We do not offer this payment option at the District office.