

## 2016 JEFFERSON PARISH WATER QUALITY REPORT

*To ensure that our tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in drinking water. Similarly, Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.*

**Jefferson Parish has always provided safe drinking water to its residents and, in its history, has never incurred a serious violation of a National Primary Drinking Water Regulation.**

In 2016, our Water Department continued to supply very high quality drinking water at a reasonable cost, which at \$2.03 per thousand gallons, is one of the lowest in the country for utilities serving populations above 100,000. Last year we detected only 13 out of over 80 contaminants required to be monitored by EPA as indicated in the table. This table includes a description of the reported data, the range of the observed data, the maximum observed value, the Maximum Contaminant Level Goal (MCLG), the level required for an MCL violation, and the most likely source of each contaminant.

**Of the contaminants detected, all were well below the level allowed by EPA.**

Our goal is to provide a continuous supply of safe, high quality drinking water to the residents of Jefferson Parish. This is accomplished through an intensive monitoring program combined with a multi-barrier water treatment process which includes clarification, filtration, primary and secondary disinfection, and corrosion control. The continuous use of powdered activated carbon and an organic spill monitor, which continuously monitors our source water, provide protection from chemical spills. Our nationally recognized Water Quality Laboratory, which has received over \$5 million in EPA research grants, employs 14 professional scientists and monitors our water on a daily, weekly and monthly basis, performing over 80,000 analyses annually. Quarterly and annual monitoring is also performed by the Louisiana Department of Health and Hospitals.

**Last year, as in years past, your tap water exceeded all Federal EPA drinking water health standards. Jefferson Parish vigilantly monitors and safeguards its water supply and is proud to report that our water system did not violate a Maximum Contaminant Level or any other water quality standard.**

*Sources of drinking water (both tap and bottled water) include rivers, streams, springs and wells. Our source of drinking water in Jefferson Parish is surface water from the Mississippi River. As water travels over or through the ground, it can dissolve naturally occurring minerals or may pick up substances resulting from the presence of human or animal activity including microbial, inorganic, organic, and radioactive contaminants as well as pesticides and herbicides. Microbial contaminants, such as viruses and bacteria, may originate from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Inorganic contaminants, such as salts and metals, can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. Pesticides and herbicides may come from a variety of sources, such as*

agriculture, urban stormwater runoff, and residential use. Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, can also come from gas stations, urban stormwater runoff, and septic systems. Radioactive contaminants can be naturally-occurring or be the result of oil and gas production and mining activities. Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. **The presence of a contaminant does not necessarily indicate that drinking 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 Hotline (800-426-4791). A Source Water Assessment Plan is now available for review at our office (838-4300) which includes a list of potential sources of contamination within a delineated area around our water intakes. According to this plan, our water systems had a susceptibility rating of high.

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most common filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Jefferson Parish conducted monthly source water monitoring for Cryptosporidium (Crypto) from April 2015 to March 2017. Of the 96 samples collected, Crypto was detected in 3 samples from the East Bank and 4 samples from the West Bank with levels ranging from 0.1 - 0.2 oocysts per liter. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants, small children, and the elderly are at greater risk of developing life-threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Total coliform bacteria (TC) and turbidity (the measure of remaining sediment), while harmless themselves, are used as indicators for harmful bacteria, viruses and protozoa that may be present in our source water. Adequate removal of TC and turbidity eliminates any significant health risk from these organisms. The MCLs for the total trihalomethanes (THMs) and total haloacetic acids (THAAs) are based on lifetime exposure over 70 years at the indicated level and are measured as annual running averages. These MCLs must be exceeded continuously year after year for 70 years in order for the drinking water to be considered unsafe.

Fluoride, while considered a contaminant at the high levels found in some ground waters, is added to our drinking water for fluoridation at 0.7 parts per million as recommended by the American Dental Association.

While lead levels were below the action level, *infants and young children are typically more vulnerable to lead in drinking water than the general population. 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. Jefferson Parish 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.*

While our drinking water exceeds the current minimum requirements for safe drinking water as well as those of the foreseeable future, *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 provider. 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).*

This Annual Water Quality Report, which encompasses water quality data from the previous calendar year, will be sent to all customers once each year. Jefferson Parish Water Department encourages public participation in any decisions that may affect water quality at the regularly scheduled meetings of the Jefferson Parish Council. A schedule of these meetings and their agenda is available from Clerk of Council's Office (364-2626). Additional information concerning this report can be obtained on the Internet at 'http://www.jeffparish.com (select: Parish Departments, Water Department, Annual Water Quality Report)' and from the Jefferson Parish Water Quality Laboratory at 504-838-4300 or the Louisiana Department of Health and Hospitals (LDHH) at 504-599-0100.

### **Commonly Asked Questions:**

#### **Why are the Maximum Contaminant Level Goals (MCLG's) in many instances less than the Maximum Contaminant Levels (MCL's) used to determine regulatory compliance?**

For noncarcinogens MCLG's are set at a level at which no adverse health effect will occur. For carcinogens, MCLG's have been set at zero because the level of no adverse health effect could not be determined by state-of-the-art science, even though it is very likely that a level of no effect exists for carcinogens based upon the body's immune system's ability to combat foreign chemicals. Recent scientific advances have made it possible to determine a no adverse health effect (threshold) level for carcinogens; however it will take a number of years for EPA to develop this methodology. MCL's, on the other hand, are set equal to the MCLG when it is technologically and economically feasible to remove contaminants to levels below the MCLG within the water treatment process. When this is not practical, the MCL is set to a level above the MCLG that is technologically and economically feasible to achieve in the treatment process as determined by EPA.

#### **Why are some maximum levels indicated in the table less than the maximums indicated in the range?**

In general, the range of values presented in the table represents the actual analysis results determined during the 1-year sampling period. In the table of regulated contaminants, the maximum value represents the maximum level used to determine compliance during the 1-year sampling period. In many instances this is a four-quarter annual running average for

contaminants that have chronic or lifetime effects. EPA uses an annual average because the MCL is set at a level that must be continuously exceeded over a normal life span to cause an adverse effect. As an example, a four-quarter annual running average compliance determination for 2014, beginning in 2014, would compare the MCL to an average of the results for the 4<sup>th</sup> quarter of 2014 and the previous three quarters in 2014. If these quarterly average results were 1, 6, 11 & 2 ppb, the range of results would be from 1 to 11 ppb and the running annual average used for compliance and displayed in the table would be 5 ppb as opposed to the maximum observed value of 11 ppb.

### **What is the 90<sup>th</sup> percentile value for copper and lead?**

The 90<sup>th</sup> percentile value is the level at which 90 % of the measured values are lower than the 90<sup>th</sup> percentile value and 10 % of the measured values are higher than the 90<sup>th</sup> percentile value. If 100 measurements were made from 100 homes in Jefferson Parish and all of the results were sorted in descending (highest to lowest) order, the 90<sup>th</sup> percentile would be the 10<sup>th</sup> value from the top or the 10<sup>th</sup> highest value.

### **Why are some contaminants regulated while others are unregulated?**

Those contaminants that are currently regulated were either mandated by Congress or were detected somewhere in the United States at levels which may pose a health concern as determined by EPA. EPA requires monitoring of unregulated contaminants to determine if they occur in the environment at levels that may result a health concern over a normal life span. Thus, unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether or not the contaminant needs to be regulated.

### **How is our water supply protected from contaminants that are not yet regulated?**

Powdered activated carbon is added to raw river water to remove man-made and natural organic chemicals. Jefferson Parish Water Quality Laboratory personnel collect and analyze drinking water samples on a daily and weekly basis for both regulated and unregulated contaminants to assure that our drinking water remains free of unwanted contaminants that might cause a health concern.

### **Why are herbicides in our drinking water? Is their presence a health concern?**

Herbicides are used throughout the world for crop production. The residues of these products are found in air, food, surface water and ground water and are therefore found in many drinking waters throughout the country. EPA regulates these residues at levels that do not constitute a health concern over a normal life span.

### **Why do we have chlorine and disinfection byproducts in our drinking water?**

Before chlorine came into common use early in this century as a water disinfectant, waterborne disease like typhoid, dysentery, and cholera killed hundreds on thousands every year. In 1900, 25,000 people died in the Unites States alone. Because of the use of chlorine, typhoid deaths in the U.S. dropped to fewer than 20 in 1960 and are almost nonexistent today. Life expectancy in the early 1900's of 45 years has increased to 76 years at present due to the use of modern water

purification methods including the use of chlorine. For these reasons, EPA requires that detectable total chlorine residual be measurable throughout the drinking water distribution system. Because the protection provided by the use of chlorine against microbial contaminants far outweighs the risks posed by the disinfection by-products formed by its use, Jefferson Parish will continue to use chlorine to achieve adequate disinfection while at the same time minimizing the formation of disinfection by-products through the optimization of the treatment process.

**Why is fluoride listed as a contaminant when it is used to fight tooth decay?**

High levels of fluoride found in some ground waters have been associated with a malformation of the teeth during childhood development. While toothpastes and mouthwashes contain fluoride at much higher levels, they are not meant for consumption.