DUBOIS WATER UTILITIES 2018 WATER QUALITY REPORT

**WATER SOURCE**

In 2018, the source of the water distributed by Dubois Water Utilities Inc. was surface water from Patoka Reservoir treated by Patoka Lake Regional Water and Sewer District, and surface water from the Patoka River treated by Jasper Municipal Utilities. For more information about your drinking water, please call us at 812-678-5161 or 800-453-6972 and ask for Superintendent Eric Smith. This annual water quality report shows the source of our water, lists the results of our tests, and contains important information about water and health issues. Dubois Water Utilities Inc. will notify you immediately if there is any reason for concern about our water. We are proud to show you that the water that we provide to you has surpassed EPA water quality standards. The water in our lines undergoes testing for over 80 contaminants according to governmental requirements. The testing results are listed in the enclosed testing tables. **As an end user of water you can help to protect sources of drinking water by increasing and promoting efforts to recycle materials and properly dispose of chemicals, used oils and petroleum products, batteries, and other household refuse.**

**YOU CAN TAKE YOUR DRINKING WATER FOR GRANTED, BECAUSE WE DO NOT!**

**OVERVIEW**

Dubois Water Utilities, Inc. has agreements to purchase water from two suppliers, Patoka Lake Regional Water and Sewer District and the City of Jasper Municipal Utilities. Both suppliers have sufficient capacity to meet the water needs of our entire system, and both suppliers follow the testing and reporting requirements of the National Primary Drinking Water Regulations (NPDWR) and IDEM. Dubois Water Utilities Inc. is also diligent in following regulations and performing tests of our system water as mandated by NPDWR, EPA, and IDEM. The 2018 testing included weekly microbiological tests with one (1) positive result for total coliform but it could not be replicated in follow up tests; No detects for Synthetic Organic Contaminants or Radioactive Contaminants; Tests for Asbestos and Arsenic in 2010were below the detection level. Asbestos “use” monitoring waiver through 2019.

Patoka Lake Regional Water and Sewer District and Jasper Municipal Utilities add fluoride to the water to prevent dental carries as a participant in the state dental fluoridation program. Since 1983 Patoka Lake Regional Water and Sewer District has used chloramines to disinfect your drinking water. For all normal users, Chlorinated water is the same as water disinfected with chlorine. However, kidney dialysis patients and aquarium or fishpond owners need to take special precautions when using chlorinated water. Kidney dialysis patients should consult your doctors and fish owners should call your pet store for more information.

**Statement Addressing Lead in Drinking Water:**

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. Dubois Water Utilities, Inc. 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 and 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>.

**ADDITIONAL HEALTH INFORMATION**

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water. 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 Hotline at 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 radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

* *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Cryptosporidium is typically found in surface water sources like Patoka Reservoir, but daily and weekly tests of the treated water by Patoka Regional Water and Sewer district have not found any in their treated water.
* *Inorganic contaminants*, such as salts and metals, which can be naturally occurring or result from urban storm runoff, and residential uses.
* *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, storm water runoff, and residential use.
* *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.
* *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 that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must 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 risks of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.Ω

**2018 Monitoring Results for Dubois Water Utilities, Inc.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CONSTITUENTS** | **Date**  **Tested** | **Unit** | **MCL** | **MCLG** | **MRAA** | **Range** | **Violation** | **Major Sources** |
| **INORGANIC CONSTITUENTS:** | | | | | | | | |
| **COPPER** | 2017 | μg/L | 1300 AL |  | 260 | 90th Percentile  Value | No | Corrosion of household plumbing |
| **LEAD** | 2017 | μg/L | 15  AL |  | 1.5 | 90th Percentile Value | No | Corrosion of household plumbing |
| *Lead & Copper - the number of samples above the AL is 0.* | | | | | | | | |
| **Asbestos** | 2010 | Mfl | <.07 | 7.0 | BDL | NA | No | Decay of water mains |
| *Tests for Asbestos and Arsenic - in 2010**were below the detection level (BDL). Asbestos “use” monitoring waiver through 2019.* | | | | | | | | |
| **DISINFECTION PROCESS BYPRODUCTS:** | | | | | | | | |
| **Total Haloacetic**  **Acids (4)** | 2018 | Ppb | 60 | NA | 20.0 | 8.1 to 32.0 | No | Disinfection process byproduct |
| **TTHM’s (Total**  **Trihalomethanes)** | 2018 | Ppb | 80.0 | NA | 52.4 | 38.6 to 67.2 | No | Disinfection process byproduct |
| *TTHMs* – *Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.* | | | | | | | | |

**UNREGULATED CONTAMINANTS**

EPA is preparing regulations that will specify a Maximum Contaminant Level for radon. Radon is a radioactive gas that occurs naturally in ground water and is released from water into the air during household use. At high exposure levels it can cause lung cancer. Radon was not detected in the treated surface water distributed by Patoka Lake Regional Water and Sewer District.

**EXPLANATION OF THE WATER QUALITY DATA TABLE**

This report is based upon test results provided to us from Patoka Regional Water and Sewer District and from Jasper Municipal Utilities, and from tests that were conducted upon samples taken by Dubois Water Utilities Inc. from our supply tanks and lines. Terms used in the Water Quality Table and in other parts of this report are defined here.

***NPDWR – National Primary Drinking Water Regulations***

***IDEM – Indiana Department of Environmental Management***

***CDC - Center for Disease Control***

***EPA - Environmental Protection Agency***

***MCL – Maximum Contaminant Level***: The highest level of a contaminant that is allowed in drinking water as established by EPA. The MCL’s are set as low to the MCLG’s as is 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. MCLG’s allow for a margin of safety.

***MRDL – Maximum Residual Disinfectant Level***: The highest level of disinfectant allowed in drinking water as established by EPA.

***MRDLG – Maximum Residual Disinfectant Level Goal***: The level of a drinking water disinfectant below which there is no known or expected risk to health.

***AL – Action Level***: The concentration of a contaminant which, if exceeded, trigger treatment or other requirement that a water system must follow.

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

***Variances and Exemptions***: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

***MRAA - Maximum running annual average***

**KEY TO TABLE**

**BDL** = Below Detectable Level **MFL** = Monofilaments per liter **NTU** = Nephelometric Turbidity Units

**ppm** = parts per million, or milligrams per liter (mg/l) **ppb** = parts per billion, or micrograms per liter (μg/l)

**pCi /L** = picocurie per liter **VOC** = Volatile Organic Contaminants **NA** = Not applicable

**ND** = Not detected **LRAA** = Location Running Annual Average

**2018 Monitoring Results for Patoka Lake Regional Water & Sewer District**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CONSTITUENTS** | **Test**  **Date** | **Unit** | **MCL** | **MCLG** | **MRAA** | **Range** | **Violation** | **Major Source** |
| **DISINFECTION PROCESS BYPRODUCTS:** | | | | | | | | |
| **HAA5’s (Total Haloacetic Acids)** | 2018 | Ppb | 60 | NA | 30.1 | 16.9 to 53 | No | Disinfection process  byproduct |
| **TTHM’S (Total**  **Trihalomethanes)** | 2018 | Ppb | 80.0 | NA | 32.7 | 21.5 to 45.3 | No | Disinfection process  byproduct |
| **INORGANIC CONSTITUENTS:** | | | | | | | | |
| **Fluoride** | 2018 | Ppm | 2.0 | 1.0 | 0.80 |  | No | Water Additive to promote strong teeth & Erosion of natural deposits |
| **Copper** | 2017 | ug/L | 1300 AL |  | 240 | 90th percentile  value | No | Corrosion of household  plumbing |
| **Lead** | 2017 | ug/L | 15 AL |  | 5.0 | 90th percentile value | No | Corrosion of household  plumbing |
| **(For Lead & Copper the number of samples above AL is 0.)** | | | | | | | | |
| **Sodium** | 2018 | PPM | None | None | 2.7 | NA | No | Erosion of natural deposits |
| **Atrazine** | 2018 | Ppb | 3.0 | BDL | 0.1 | N/A |  |  |
| **Barium** | 2018 | PPM | 2 | 2 | 0.024 | N/A | No | Erosion of natural deposits |
| **EPA is preparing a regulation, which will specify a Maximum Contaminant level for radon. Radon is a radioactive gas that occurs naturally in ground water and is released from water into the air during household use. At high exposure levels it can cause lung cancer. Radon was not detected in the treated finished water distributed by Patoka Lake Regional Water & Sewer District.** | | | | | | | | |
| **Gross Alpha** | 2017 | pCi/L | 15 | 0 | .99 | N/A | No | Runoff from herbicide used  on row crops |
| **Radium 226** | 2016 | pCi/L |  | 0 | 0.14 | N/A | No | Erosion of natural deposits |
| **Radium 228** | 2017 | pCi/L |  | 0 | 0.61 | N/A | No | Erosion of natural deposits |
| **Combined Radium** | 2016 | pCi/L | 5 | 0 | .97 | N/A | No | Erosion of natural deposits |
| **Turbidity** | Daily | NTU | TT = 0.3 | NA | .38 Highest reading | | No |  |
| **Turbidity does not present any risk to your health. Turbidity is a measure of suspended matter in water, and is a good indicator**  **that the filtration system is functioning.** | | | | | | | | |
| **TOTAL ORGANIC CARBON:** | | | | | | | | |
| **Average % of removal** | | % | 25% | 100 | 29.3% | 13.2% to 36% | No | Erosion of natural deposits |
| **UNREGULATED CONTAMINANTS** | | | | | | | | |
| **CONSTITUENTS** | **Test**  **Date** | **Unit** | **MRDL** | **MRDLG** | **MRAA** | **Range** | **Violation** | **Major Sources** |
| **Chloramine** | Daily | Ppm | 4.0 | 4.0 | 3.5 | 4.0 – 1.3 | No | Added for disinfectant |

**2018 Monitoring Results for Jasper Municipal Water Utility**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SUBSTANCE**  **(Unit of Measure)** | | **Test Date** | **MCL**  **[MRDL]** | | **MCLG**  **[MRDLG]** | | **Amount**  **Detected** | **Range**  **Low-High** | | | **Violation** | | **Typical Source** | |
| **Alpha Emitters (pCi/L)** | | 2017 | 15 | | 0 | | < 3.0 | NA | | | No | | Erosion of natural deposits | |
| **Asbestos** (mfl) | | 2017 | 7.0 | | 7.0 | | 0.40 |  | | | No | | Decay of Asbestos Cement Water Mains, Erosion of Natural Deposits | |
| **Atrazine** (ppb) | | 2018 | 3 | | 3 | | 0.0 | 0.0 – 0.0 | | | No | | Runoff from herbicide used on row crops | |
| **Barium** (ppm) | | 2018 | 2 | | 2 | | 0.0310 | 0.0310 - 0.0310 | | | No | | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits | |
| **Chlorine** (ppm) | | 2018 | [ 4 ] | | [ 4 ] | | 1.0 | 0.22 – 2.14 | | | No | | Water additive used to control microbes | |
| **Combined Radium (pCi/L)** | | 2017 | 5 | | 0 | | < 1.0 | NA | | | No | | Erosion of natural deposits | |
| **Fluoride** (ppm) | | 2018 | 4 | | 4 | | 0.8 | 0.64 - 1.16 | | | No | | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories | |
| **Haloacetic Acids [HAA] – Stage 2**(ppb) | | 2018 | 60 | | NA | | 25 | 11.8 – 38 | | | No | | By-product of drinking water disinfection | |
| **Nitrate** (ppm) | | 2018 | 10 | | 10 | | 2 | 1.6 – 1.6 | | | No | | Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits | |
| **Sodium** (ppm) | | 2018 | NA | | NA | | 14.2 | NA | | | No | | Road salt, septic tanks, sewage, & natural deposits | |
| **TTHMs** (ppb) **[Total Trihalomethanes]** | | 2017 | 80 | | NA | | 96 | 19.6 - 96 | | | No | | By-product of drinking water disinfection | |
| **Total Organic Carbon** (removal ratio) | | 2018 | TT | | NA | | 1.80 | 0.70 – 2.83 | | | No | | Naturally present in the environment | |
| **Turbidity** (NTU) | | 2018 | TT | | NA | | 0.22 | 0.04 – 0.22 | | | No | | Soil runoff | |
| **Turbidity** (Lowest % of monthly samples meeting limit) | | 2018 | TT | | NA | | 100 | NA | | | NO | | Soil runoff | |
| Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. | | | | | | | | | | | | | | |
| **Uranium (ug/L)** | | 2017 | 30 | | 0 | | < 1.0 | NA | | | No | | Erosion of natural deposits | |
| **PCBs** | | 2018 | 500 | | 0 | | 140 | 0 – 140 | | | No | | Runoff from Landfills; Discharge of waste chemicals | |
| **Tap water samples were collected for lead and copper analyses from sample sites throughout the community** | | | | | | | | | | | | | | |
| **SUBSTANCE**  **(Unit of Measure)** | **Test Date** | | **AL** | **MCLG** | | **Amount Detected**  **(90th Percentile)** | | | **Sites Above**  **AL/Total Sites** | | | **Violation** | | **Typical Source** |
| **Copper** (ppm) | 2017 | | 1.3 | 1.3 | | 0.102 | | | 0 / 30 | | | No | | Corrosion of household plumbing systems; Erosion of natural deposits |
| **Lead** (ppb) | 2017 | | 15 | 0 | | 0.2 | | | 1 / 30 | | | No | | Corrosion of household plumbing systems; Erosion of natural deposits |
| **LT2 MONITORING FOR CRYPTOSPORIDIUM** | | | | | | | | | | | | | | |
| **TEST RESULTS [ oocysts/L ]** | | | | | | | | | | **MAJOR SOURCES** | | | | |
| **Cryptosporidium** | Maximum 0.93 | | | | | | | | | Microbial parasite which is found in surface water | | | | |
| Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested for it to cause disease, and may be passed through means other than drinking water. | | | | | | | | | | | | | | |