

Kingfisher Public Works Authority #OK2003702

2016 Water Quality Report

Annual Drinking Water Quality Report

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of 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. Our water source is groundwater from the Cimarron Terrace Aquifer and Turkey Creek Aquifer. The aquifers supply approximately 865,250 gallons of ground water per day to our residents. City of Kingfisher supplies potable water to approximately 5000 residents who live in our community.

We have a source water protection plan available from our office that shows the vulnerability of our system as MEDIUM. The plan also provides more information such as potential sources of contamination.

I'm pleased to report that our drinking water is safe and meets Federal and State requirements. This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Greg Tasso at 405-375-4617. We want our valued customers to be informed about their water utility. You are welcome to attend any of our regularly scheduled meetings. They are held the second Monday of each month, starting 5:30 pm at the City Hall, 301 N. Main, Kingfisher.

Kingfisher Public Works Authority routinely monitors for constituents in your drinking water according to Federal and state laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2016. (Some of our data may be more than one year old because the state allows us to monitor for some contaminants less often than once per year.) We are pleased to report that we did not violate any of the standards as set by EPA!

DEFINITIONS: The following tables contain scientific terms and measures, some of which may require explanation.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Level 1 Assessment: A level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why E.coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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.

Mrem: millirems per year (a measure of radiation absorbed by the body)

NA: not applicable

Treatment Technique (TT): A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

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

Parts per million (ppm) or Milligrams per liter (mg/l): One part of contaminant per million parts of water.

Parts per billion (ppb) or Micrograms per liter (ug/l): One part of contaminant per billion parts of water.

Picocuries per liter (pCi/L): picocuries per liter is a measure of the radioactivity in water.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

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 at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man-made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 the 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 1-800-426-4791.

WATER QUALITY DATA

DISINFECTANTS AND DISINFECTION BY-PRODUCTS

Contaminant	Violation Y/N	Highest Level Detected	Range Detected	MCL	MCLG	Likely sources of contamination
Chlorine (ppm) 2016	N	1	1 - 1	MRDL=4	MRDLG=4	Water additive used to control microbes
TTHM [Total Trihalomethanes] (ppb) 2016	N	71	41.6 - 89.2	80	No goal for the total.	By-product of drinking water disinfection
Haloacetic Acids [HAA5] (ppb) 2016	N	17	10.8 - 23.3	60	No goal for the total.	By-product of drinking water disinfection

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

* Due to the 2006 sample results exceeding the maximum contaminant level (MCL), the monitoring frequency for our system has increased to once per quarter. (The Stage 2 DBPR Compliance Monitoring has been stopped until Feb. 2013, E.P.A. letter is on file for 10 years).

MICROBIOLOGICAL CONTAMINANTS

Contaminant	Violation Y/N	Highest Level Detected	Range Detected	MCL	MCLG	Likely sources of contamination
Total Coliform Bacteria	N	0	N/A	5% positive 1 positive	0	Naturally present in the environment,

RADIONUCLIDES

Contaminant	Violation Y/N	Highest Level Detected	Range Detected	MCL	MCLG	Likely sources of contamination
Alpha Emitters (pCi/L)	N	5.25	0 - 5.25	15	0	Erosion of natural deposits.
Beta/Photon Emitters (mrem/yr) 2014	N	4.07	4.07 - 4.07	4	0	Decay of natural and man-made deposits.

RADIOACTIVE CONTAMINANTS

Contaminant	Violation Y/N	Highest Level Detected	Range Detected	MCL	MCLG	Likely sources of contamination
Gross Alpha excluding radon and uranium (pCi/L) 2014	N	3.88	1.4 – 3.88	15	0	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Uranium (ug/l) 2014	N	3.7	3.7 – 3.7	30	0	Erosion of natural deposits.

Nitrate/Nitrite

Contaminant	Violation Y/N	Highest Level Detected	Range Detected	MCL	MCLG	Likely Sources of contamination
Nitrate (measured as Nitrogen) (ppm) 2016	N	6	5.61 - 5.61	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

INORGANIC CONTAMINANTS

Contaminant	Violation Y/N	Highest Level Detected	Range Detected	MCL	MCLG	Likely sources of contamination
Arsenic (ppb) 2016	N	2.4	2.4 – 2.4	10	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm) Date: 11/27/2006	N	0.201	0.201 - 0.201	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm) Date: 11/27/2006	N	0.5	0.5 - 0.5	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.

LEAD AND COPPER (Regulated at Customer Tap)

Contaminant	Violation Y/N	90 th Percentile	Range Detected	Action Level (AL)	MCLG	Likely sources of contamination
Lead (ppb)	N	Less than 5	None	15	0	Corrosion of Household plumbing systems, erosion of natural deposits
Copper (ppm)	N	1.25	None	1.3	1.3	Corrosion of Household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

* Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Number of sites over AL: 1

Consumer Confidence Rule

The Consumer Confidence Rule requires community water systems to prepare and provide their customers annual consumer confidence reports on the quality of the water delivered by the system.

Violation Type	Violation Begin	Violation End	Violation Explanation
CCR Report	07/01/2016	2016	We failed to provide to you, or drinking water customers, an annual report that informs you about the quality of our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water.

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Nitrate [measured as Nitrogen] – Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

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Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. If Coliforms were found in more samples than allowed this was a warning of potential problems.

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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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Please call our office if you have questions.