# Drinking Water Consumer Confidence Report prepared in 2017 is the Report for 2016 City of Wellston Ohio North & South Water Works

The City of Wellston's public water system uses surface water drawn from the Little Raccoon Creek and ground water drawn from an abandoned mine. Potential contaminant sources around the Little Raccoon Creek and the well field include some developed areas and contain a number of potential contaminant sources. These include agricultural runoff, inadequate septic systems, an active coal preparation plant, runoff directly into the underground reservoir (abandoned mine) through drainage wells, leaking underground storage tanks, and road and rail bridge crossings.

"For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature surface waters are accessible and can be easily contaminated by chemicals and pathogens. Also, compared to ground water, they tend to move swiftly, so an upstream spill may rapidly arrive at the public drinking water intake with little warning or time to prepare. The City of Wellston additionally uses water from the abandoned coal mine, which is a mixture of ground water and surface water. This water also has a high susceptibility to contamination."

Historically, the Wellston public water system has effectively treated this source water to meet drinking water quality standards. Implementing measures to protect Little Raccoon Creek and the underground reservoir (abandoned mine) can further decrease water quality impacts. More detailed information is provided in the City of Wellston's Drinking Water Source Assessment report, which can be obtained by calling Adam Peters at 384-6274.

Wellston's North and South Water Systems are considered a single system since they can both pump into the combined distribution system. This report contains information on the water quality from both treatment plants.

## What are sources of contamination to drinking water?

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 can pick up substances resulting from the presence of animals or from human activity.

Many water sources contain the following contaminants:

Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water 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 storm water runoff, and residential uses.

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 storm water runoff, and septic systems.

Radioactive contaminants can be naturally occurring or 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. Food and Drug Administration (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 Hotline (1-800-426-4791).

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

## About your drinking water.

The EPA requires regular sampling to ensure drinking water safety. The Wellston Water System conducts sampling for; bacteria, nitrate, inorganic chemicals, synthetic organic chemicals, volatile organic chemicals, Lead and Copper. The Ohio EPA requires monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. All of our reported data, except for Lead and Copper, is from tests performed in 2016. Lead and Copper results are from 2014.

Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contamination
Residual Disinfectant	<u>.</u> S			•			
Chlorine (ppm)	MRDLG = 4	MRDL = 4	2.62	0.57 – 2.62	No	2016	Water additive used to control microbes.
norganic Contamina	nts						
Lead (ppb)	0	Action Limit = 15	2.0	NA	No	2014	Corrosion of household plumbing systems; erosion of natural deposits.
	Zero out of	twenty-one s	samples we	ere found to hav	e lead levels	in excess of	the Action Level of 15 ppb
Copper (ppb)	0	Action Limit = 1,300	67	NA	No	2014	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Volatile Organic Contami	nants						
Total Trihalomethanes (ppb)	NA	80	63.3	41.6 – 87.3	No	2016	By-product of drinking water chlorination.
Five Haloacetic Acids (ppb)	NA	60	59.5	41.9 – 111.9	No	2016	By-product of drinking water chlorination.
				South Pl	ant		
Inorganic Contaminants							
Nitrate (ppm)	10	10	0.10	0.10	No	2016	Runoff from fertilizer user; leaching from septitanks, sewage; Erosion of natural deposits.
Barium (ppb)	2,000	2,000	10	NA	No	2016	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.167	NA	No	2016	Water additive which promotes strong teeth; erosion of natural deposits.
Treatment Technique							
Turbidity (NTU)	NA	TT	0.164	.015164	No	2016	Soil Runoff
Turbidity (% samples meeting standard)	NA	TT	100%	100 – 100%	No	2016	
Total Organic Carbon	NA	TT	5.73	0.70 - 5.73	No	2016	Naturally present in the environment.

North Plant								
Inorganic Contaminants								
Nitrate (ppm) Start Here	10	10	0.33	0.1 - 0.33	No	2016	Runoff from fertilizer user; leaching from septic tanks, sewage; Erosion of natural deposits.	
Barium (ppb)	2,000	2,000	21	NA	No	2016	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
Fluoride (ppm)	4	4	1.13	0.80 - 1.27	No	2016	Water additive which promotes strong teeth; erosion of natural deposits.	
Treatment Technique								
Turbidity (NTU)	NA	TT	0.415	0.025 - 0.415	No	2016	Soil Runoff	
Turbidity (% samples meeting standard)	NA	TT	100%	99.9%	No	2016		
Total Organic Carbon	NA	TT	1.94	1.80 - 3.20	No	2016	Naturally present in the environment.	

#### **Turbidity**

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of the filtration system. The turbidity limit set by the EPA is 0.3 in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported above, the City of Wellston's highest recorded turbidity result for 2015 was 0.415 NTU and lowest monthly percentage of samples meeting the turbidity limits was 99.9%.

#### TOC

The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than (1) indicates a violation of the TOC removal requirements.

## **Disinfection Byproducts Trihalomethanes and Haloacetic Acids**

These contaminants are formed when chlorine is added to water to kill bacteria, virus and protozoa. The chlorine also reacts with organic chemicals creating the Disinfection Byproducts; Trihalomethanes and Haloacetic Acids.

# **Lead Exposure Health Risk**

Infants and young children are typically more vulnerable to lead in drinking water than the general population. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested, and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

# How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of The Wellston City Council, which are held on the first and third Thursdays of each month. The state and federal Environmental Protection Agencies make Decisions concerning drinking water treatment, monitoring and reporting. You should follow media reports of regulatory legislation and activity closely. Concerns about state and federal

regulatory activity should be voiced to your state and federal representatives and senators.

# <u>Definitions of some terms contained within this report.</u>

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.

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

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant.

Parts per Billion (ppb) or Micrograms per Liter (ug/L) are units of measure for concentration of a contaminant.

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

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

Secondary Maximum Contaminant Level (SMCL): A suggested but non-binding limit.

#### **License to Operate**

The City of Wellston has a current and unconditioned license to operate our water system.

### **Vulnerability Assessment and Emergency Operation Plan**

The City of Wellston Water System has both a Vulnerability Assessment and an Emergency Operation Plan on file with the Ohio EPA and the USEPA.

## Help us spread this information.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly. Address questions concerning the information contained in this CCR to: Adam Peters at 384-6274.