



*City of White Oak*  
*2016 Annual Drinking*  
*Water Quality Report*

*(Consumer Confidence Report)*

*PWS ID TX0920006*

*January 1 to December 31, 2016*

**OUR DRINKING WATER MEETS or EXCEEDS ALL FEDERAL (EPA) DRINKING  
WATER REQUIREMENTS**

This report is a summary of the quality of the water we provide our customers for 2016. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become knowledgeable about what's in your drinking water.

**En Español**

*Este reporte incluye informacion importante sobre el agua para tomar.  
Para asistencia en espanol, favor de llamar al telefono (903) 759-3936.*

## **SPECIAL HEALTH INFORMATION!!**

**“You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or Immuno-compromised persons such as those undergone chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/Aids or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791.”**

### **How to Contact Us**

Billing Questions or Water/Sewer Emergency: (903) 759-3936 ext.7019

Water Quality Questions call Beaux Huey: (903) 759-3936 ext. 7036

*You can also check our website at [www.cityofwhiteoak.com](http://www.cityofwhiteoak.com)*

### **Public Participation Opportunities**

**Date:** Second Tuesday Each Month

**Time:** 5:00 PM

**Location:** City Hall

**Address:** 906 S. White Oak Rd.

**Phone No:** (903) 759-3936

### **Substances Expected in 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. Substances 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.
- **Inorganic contaminants:** such as salts and metals, which 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:** which may come from a variety of sources such as agriculture, urban stormwater 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 stormwater runoff, and septic systems.
- **Radioactive contaminants:** which can be natural-occurring or be the result of oil and gas production and mining.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

### **All drinking water may contain contaminants.**

Contaminants may be found in drinking water that may cause taste, color or odor problems. These types of problems are not necessarily cause for health concerns. 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 EPA's Safe Drinking Water Hotline at 1-(800)-426-4791.

### **Where do we get our drinking water?**

Raw water is pumped from BIG SANDY CREEK into storage reservoirs at our water treatment plant. From there, the raw water is sent through the plant where it undergoes our treatment process, after which it's pumped into our distribution system, water tower and standpipe. The TCEQ completed an assessment of our source water and results indicate that our source water is susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confident Report. TCEQ has updated a

Source Water Susceptibility assessment of our source water. This information describes the susceptibility and types of constituents that may come in contact with our drinking water source based on human activities and natural conditions. This allows us to focus our source water protection strategies. We also purchase treated water from the City of Longview; their susceptibility report is included in this assessment. For more information on source water, refer to Source Water Assessment Viewer at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=> or you may contact Beaux Huey at 903-759-3936 ext.7036.

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

### **About the Following Information.**

The pages that follow list all of the federally regulated or monitored contaminants which have been found in our drinking water.

### **TABLE DEFINITIONS**

**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 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 residual disinfectant level goal (MRDLG)** – 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 disinfectants to control microbial contaminants.

**Maximum residual disinfectant level (MRDL)** – The highest level of a disinfectant allowed in drinking water. This is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Treatment Technique (TT)** – 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 a treatment or other requirement which a water system must follow.

**Action Level Goal (ALG)** – The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

**Locational Running Annual Average (LRAA)** – The arithmetic average of analytical results for samples taken at a specific monitoring location during the previous four calendar quarters.

- **mrem/year**– millirems per year (a measure of radiation absorbed by the body).
- **NTU** – Nephelometric turbidity units (a measure of turbidity).
- **ppm** – Parts per million, or milligrams per liter (mg/l).
- **ppb** – Parts per billion, or micrograms per liter (ug/l).
- **pCi/L**- Picocuries per liter (a measure of radioactivity).
- **ppt** – Parts per trillion, or nanograms per liter (ng/l).
- **ppq** – Parts per quadrillion, or pictograms per liter (pg/l).
- **MFL** – Million fibers per liter (a measure of asbestos).
- **Avg** – Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- **NA** – Not applicable.
- **ND** – Not detected at testing limits.

## Regulated Contaminants at Treatment Facility

Constituent	Year	Average	Detected Range	MCL	MCLG	Units	Typical Source
<b>Chloramines</b>	2016	3.2	2.0 - 4.0	4	4	ppm	Disinfectant used to control microbes
<b>Chlorite</b>	2016	0.53	0.05-0.91	1	0.8	ppm	By-products of drinking water disinfection
<b>Barium</b>	2016	0.029	0.029	2	2	ppm	Discharge from drilling wastes, Erosion of natural deposits
<b>Combined Radium 226/228</b>	2016	1.5	1.5 - 1.5	0	5	pCi/L	Erosion of natural deposits
<b>Gross Beta particles &amp; Photon emitters</b>	2016	4.7	4.7	50	NA	pCi/L	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation
<b>Nitrate (As N)</b>	2016	0.192	0.192	10	10	ppm	Runoff from fertilizer use, Leaching from septic tanks, sewage; Erosion of natural deposits
<p>"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."</p>							
<b>Total Organic Carbon (Source Water)</b>	2016	11.76	5.66 - 17.4	NA	NA	ppm	Naturally present in the environment
<b>Total Organic Carbon (Drinking Water)</b>	2016	2.82	1.88 - 3.63	NA	NA	ppm	Naturally present in the environment
<b>Total Organic Carbon % Removal</b>	2016	74.5	56.2 - 84.2	NA	NA		The TOC removal ratio is the % of TOC removed through the treatment process divided by the % of TOC required by the TCEQ to be removed
<p>Total Organic Carbon (TOC) has no adverse health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Total organic carbon provides a medium for the formation of disinfection by-products when water is disinfected. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.</p>							

<b>Constituent</b>	<b>Year</b>	<b>Highest Single Measurement</b>	<b>Lowest % of Samples Meeting Limits</b>	<b>Turbidity Limits</b>	<b>Source</b>
<b>Turbidity (NTU)</b>	2016	.29	100	0.3	Soil Runoff
Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration.					

## Regulated Substances in the Distribution System

### Stage 2 Disinfection By-products

Disinfectants and Disinfection By-Products	Collection Date	Average	Range of Levels Detected	MCL	MCLG	Units	Likely Source of Contamination
Haloacetic Acids (HAAs)	2016	23.88	17.5-29.9	60	NA	ppb	By-products of drinking water disinfection
Some people who drink water containing Haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.							
Total Trihalomethanes	2016	19.55	9.58-26.6	80	NA	ppb	By-products of drinking water disinfection
Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.							

## Regulated Substances in the Distribution System

### Stage 2 Disinfection By-products

#### Locational Running Annual Averages

Constituent	Year	Location	LRAA	Range	MCL	Units	Source
Total Haloacetic Acids	2016	Site 1	26.2	24.3-34.8	60	ppb	By-product of drinking water chlorination
	2016	Site 2	20.13	18.9-22.1	60	ppb	
Some people who drink water containing Haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.							
Constituent	Year	Location	LRAA	Range	MCL	Units	Source
Total Trihalomethanes	2016	Site 1	19.13	17.6-20.7	80	ppb	By-product of drinking water chlorination
	2016	Site 2	17.38	16.1-18.4	80	ppb	
Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.							



## Regulated Substances at the Customer's Tap

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over (AL)	Units	Likely Sources of Contamination
Copper	2016		1.3	ND	0	ppm	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2016		15	ND	0	ppb	Corrosion of household plumbing systems; Erosion of natural deposits.
<p>"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. This water supply 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 water for 30 seconds to 2 minutes before using tap 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 <b>Safe Drinking Water Hotline</b> or at <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a>."</p>							

## Microbiological Contaminants

Constituent	Year	Highest Monthly % of Positive Samples	MCL	MCLG	Unit of Measure	Source
Total Coliform Bacteria	2016	ND	*	0	Presence	Naturally present in the Environment
Fecal Coliform Bacteria	2016	ND	*	0	Presence	Naturally present in the Environment
<p>Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.  <i>* Presence of Coliform in 5% or more of the monthly samples.</i></p>						

## Additional Parameters Tested in Your Water System

This chart lists other items for which the water is tested. These items do not relate to public health but rather to the aesthetic quality. These parameters are often important to industrial water users or customers with special needs.

Constituent	Units of Measure	White Oak water	MCL
Aluminum	ppm	0.48	0.20
Manganese	ppm	0.0079	0.05
Nickel	ppm	0.0011	0.1
Chloride	ppm	12.2	300
Potassium	ppm	3.9	NA
Sulfate	ppm	32.8	300
pH	pH units	8.0 – 9.3	>7.0
Conductivity	µmhos/cm	192	NA
Dissolved Solids	ppm	115	1000
Calcium	ppm	5.23	NA
Magnesium	ppm	2.34	NA
Total Alkalinity	ppm	30.0	NA
Bicarbonate Alkalinity	ppm	24.7	NA
Sodium	ppm	21.5	20,000
Total Hardness as CaCO <sub>3</sub>	ppm	22.7	NA

## Unregulated Contaminant Monitoring Regulation (UCMR3)

Constituent	Year	Site 1 Range	Site 2 Range
Chlorate	2013	192 - 228.102	201 - 265.287
Chromium-6	2013	0.039 - 0.066	0.036 - 0.0808
Manganese	2013	1.08 - 6.29	1.4068 - 5.88
Strontium	2013	58.6269 - 91.126	50.3076 - 93.226

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

For the time period of Jan-Dec 2016, our water system lost and estimated 39 million gallons of water. If you have any questions about the water loss audit please call 903-759-3936.

The City of White Oak purchased water from the City of Longview for 19 days in 2016 to meet the demands of White Oak customers.



## **Longview...Committed to Excellence**

### **2016 Water Quality Report**

Safe drinking water is an essential and precious resource for our community. We utilize the latest technology to treat your drinking water and this water is tested continuously to ensure high quality.

It is important to us that you have information about your drinking water so you can have confidence in the product we deliver. This report is a snapshot of last year's water quality and sources of the drinking water you received in 2016. As you read this report, you will learn that the water to your tap meets or exceeds all state and federal water quality standards. We hope that you will find it useful and reassuring that your water is safe to drink.

If you have health concerns related to the information in this report, we encourage you to contact your health care provider. For more information about this report, or for any questions relating to your drinking water, please call the Water Purification Division at 903-237-2780.

### **SPECIAL HEALTH INFORMATION!!**

**Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons with cancer undergoing chemotherapy, persons who have undergone 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791)**

### Thirsty for more information about your water?

- Billing questions 903-237-1030
- Questions about the quality of your drinking water: 903-237-2780
- Water and sewer emergency, service interruptions: 903-236-3030
- To report water security issues: 903-236-3030
- For Backflow Prevention questions: 903-237-2787
- Water conservation or to request a speaker: 903-237-1034
- Source Water Assessment Questions: 903-291-5234
- Storm Water Runoff and Pollution Management: 903-237-1067
- To report water pollution: 903-291-5234

**The City Council meets every 2<sup>nd</sup> and 4<sup>th</sup> Thursday of each month. Times vary. Call 903-237-1080 or check our website for more information.**

***You can also find us on the internet***

[www.LongviewTexas.gov](http://www.LongviewTexas.gov)

**The Longview City Hall is located at 300 W. Cotton St. Offices are open from 8 a.m. to 5 p.m.**

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono 903-237-1214, 903-237-1060, or 903-237-1199.

### **Substances Expected in 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 can pick up substances resulting from the presence of animals or from human activity. Substances 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.
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- **Pesticides and herbicides:** which may come from a variety of sources such as agriculture, urban stormwater 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 stormwater runoff, and septic systems.
- **Radioactive contaminants:** which can be natural-occurring or be the result of oil and gas production and mining.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulation that limit the amount of certain contaminants in water provided by public water systems. The

Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color or odor problems. These types of problems are not necessarily cause for health concerns. 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 call the EPA's Safe Drinking Water Hotline 1-(800)-426-4791.

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- **NA** – Not applicable.
- **ND** – Not detected at testing limits.

Year	Constituent	Average	Detected Range	MCL	MCLG	Typical Source
2016	Chloramines (ppm)	1.72	1.52 - 1.92	4	4	Disinfectant used to control microbes.
2016	Chlorite (ppm)	0.189	0.04-0.54	1	0.8	By-product of drinking water disinfection
2016	Barium (ppm)	0.045	0.03 - 0.06	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
2016	Fluoride (ppm)	0.684	0.47 - 0.95	4	4	Erosion of natural deposits; Water additive which promotes strong teeth.
2016	Nitrate (ppm)	0.22	0.07-0.34	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2016	Chromium (ppm)	0.00019	ND-0.0006	0.1	0.1	Discharge from steel and pulp mills. Erosion of natural deposits.
2011	Gross Beta particles & Photon emitters (pCi/L)	1.37	0.0-4.1	50	NA	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation.

Year	Constituent	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Source of Contaminant
2016	Turbidity (NTU)	0.31	100	.3	Soil Runoff
<p>Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity is measured in Nephelometric Turbidity Units (NTU) and is a measurement of water clarity. This water quality parameter is monitored as a treatment technique (TT).</p>					

This chart lists other items for which the water is tested. These items do not relate to public health but rather to the aesthetic quality. These parameters are often important to industrial water users or customers with special needs.

<b>Constituent</b>	<b>Units of Measure</b>	<b>Longview Water</b>
Aluminum	ppm	0.18-0.94
Manganese	ppm	0.0012-0.029
Nickel	ppm	0.00092-0.0015
Chloride	ppm	8.65-21.9
Sulfate	ppm	30.4-51.4
Copper	ppm	0.0006-0.0008
pH	pH units	8.2-8.5
Conductivity	µmhos/cm	183-278
Total Alkalinity as CaCO <sub>3</sub>	ppm	<20.0-39.2
Bicarbonate	ppm	<20.0-32.8
Dissolved Solids	ppm	94-176
Calcium	ppm	18.9-24.8
Magnesium	ppm	3.08-3.96
Potassium	ppm	1.27-4.43
Cyanide	ppm	0.107-0.172
Sodium	ppm	8.75-17.6
Total Hardness as CaCO <sub>3</sub>	ppm	60.1-78.2
Total Hardness in Grains	Grains/Gallon	3.51-4.57

### **Longview's Sources of Drinking Water**

Longview uses surface water from three sources: Lake Cherokee, Sabine River, and Lake O' the Pines. A source water assessment has been completed by the Texas Commission on Environmental Quality (TCEQ) for all three water sources and the report is available to review by calling us at 903-291-5234 or 903-237-2780. It allows us to focus on our source water protection activities. The results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants will be found in this report. For more information on source water assessments and protection efforts at our system contact us at 903-291-5234. To monitor water quality in local rivers, streams and reservoirs, the City of Longview has a Watershed Management Program. We work closely with the Sabine River Authority, Cherokee Water Company, Northeast Texas Municipal Water District, Texas Railroad Commission, Texas Commission on Environmental Quality (TCEQ), Texas Parks and Wildlife Commission, American Water Works Association, Texas Water Utilities Association and local industries to monitor and maintain high level of water quality.