City of White Oak

2015 Annual Drinking Water Quality Report

(Consumer Confidence Report)

PWS ID TX0920006

January 1 to December 31, 2015

OUR DRINKING WATER MEETS or EXCEED ALL FEDERAL (EPA) DRINKING WATER REQUIREMENTS

This report is a summary of the quality of the water we provide our customers for 2015. 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 Espanol

Este reporte incluye informacion importante sobre el agua para tomar. Para assistencia 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

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 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 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.

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 call the EPA's Safe Drinking Water Hotline 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. 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 your 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. Some of this source water assessment information is available on Texas Drinking Water Watch at http://dww.tceq.state.tx.us/DWW//. For more information on source water, refer to Source Water Assessment Viewer at the following URL: http://www.tceq.texas.gov/gis/swaview

About the Following Information.

The pages that follow list all of the federally regulated or monitored contaminants which been found in your 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).
- **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 Substances at the Treatment Plant

Constituent	Year	Average	Detected Range	MCL	MCLG	Units	Typical Source
Chloramines	2015	3.2	2.4 - 4.0	4	4	ppm	Disinfectant used to control microbes
Chlorite	2015	0.49	0.16 – 0.78	1	0.8	ppm	By-products of drinking water disinfection
Barium	2015	0.027	0.027	2	2	ppm	Discharge from drilling wastes, Erosion of natural deposits
Cyanide	2015	0.149	0.149	0.2	0.2	ppm	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Nitrate (As N)	2015	0.231	0.231	10	10	ppm	Runoff from fertilizer use, Leaching from septic tanks, sewage; Erosion of natural deposits
"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."							

Total Organic Carbon (Source Water)	2015	20.71	9.0 – 32.8	NA	NA	ppm	Naturally present in the environment
Total Organic Carbon (Drinking Water)	2015	3.34	1.84 – 5.31	NA	NA	ppm	Naturally present in the environment
Total Organic Carbon % Removal	2015	81.4	63.9 – 90.5	NA	NA		The TOC removal ratio is the percent of TOC removed through the treatment process divided by the percent of TOC required by the TCEQ to be removed

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.

Regulated At the Treatment Plant

Constituent	Year	Highest Single Measurement	Lowest % of Samples Meeting Limits	Turbidity Limits	Source
Turbidity (NTU)	2015	.29	100	0.3	Soil Runoff

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).

Unregulated Substances at the Treatment Plant

Stage 1 Disinfection By-products

Constituent	Year	Average	Range	Units	Source
Chloroform	2015	12.5	12.5 - 12.5	ppb	By-product of drinking water chlorination
Bromodichloromethane	2015	4.17	4.17 – 4.17	ppb	
Dibromochloromethane	2015	1.13	1.13 – 1.13	ppb	

Chloroform, Bromodichloromethane, and Dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution.

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 (HAA5)	2015	24.79	17.8 – 34.8	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	2015	19.51	13.3 – 31.0	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	2015	Site 1	26.6	17.8 - 34.8	60	ppb	By-product of drinking water chlorination
	2015	Site 2	23.0	15.9 – 29.5	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	2015	Site 1	18.90	13.3 – 31.0	80	ppb	By-product of drinking water chlorination
	2015	Site 2	20.1	16.4 – 24.2	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)	90th Percentile	# Sites Over (AL)	Units	Likely Sources of Contamination
Copper	2013		1.3	.0351	0	ppm	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2013		15	1.78	0	ppb	Corrosion of household plumbing systems; Erosion of natural deposits.

"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 Safe Drinking Water Hotline or at http//www.epa.gov/safewater/lead."

Microbiological Contaminants

Constituent	Year	Highest Monthly % of Positive Samples	MCL	MCLG	Unit of Measure	Source
Total Coliform Bacteria	2015	ND	*	0	Presence	Naturally present in the Environment
Fecal Coliform Bacteria	2015	ND	*	0	Presence	Naturally present in the Environment

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

* *Presence of Coliform in 5% or more of the monthly samples.*

The City of White Oak purchased water from the City of Longview for 19 days in 2015 to meet the demands of White Oak customers.

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	0.41	0.20
Manganese	ppm	0.0038	0.05
Nickel	ppm	0.00091	0.1
Copper	ppm	0.0012	1.3
Chloride	ppm	20.6	300
Potassium	ppm	3.84	NA
Sulfate	ppm	44.5	300
pH	pH units	8.2 – 9.3	>7.0
Conductivity	µmhos/cm	237	NA
Dissolved Solids	ppm	130	1000
Calcium	ppm	6.35	NA
Magnesium	ppm	2.70	NA
Total Alkalinity	ppm	17.8	NA
Bicarbonate Alkalinity	ppm	17.8	NA
Sodium	ppm	28.2	20,000
Total Hardness as CaCO3	ppm	27.0	NA

"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."

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

For the time period of Jan-Dec 2015, our water system lost and estimated 38 million gallons of water. If you have any questions about the water loss audit please call 903-759-3936.

Longview…Committed to Excellence

2015 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 2014. 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 2nd and 4th 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

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 asistancia 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.
- **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 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.

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.

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

Year	Constituent	Average	Detected Range	MCL	MCLG	Typical Source
2015	Chloramines (ppm)	1.45	1.15 - 1.70	4	4	Disinfectant used to control microbes.
2015	Chlorite (ppm)	0.213	0.02-0.44	1	0.8	By-product of drinking water disinfection
2015	Barium (ppm)	0.059	0.046-0.073	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
2015	Fluoride (ppm)	0.42	0.28-0.66	4	4	Erosion of natural deposits; Water additive which promotes strong teeth.
2015	Nitrate (ppm)	0.14	0.07-0.22	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2015	Selenium(ppm)	0.00193	.0015-.0028	50	50	Discharge from petroleum refineries; Erosion of natural deposits; Discharge from mines
2011	Gross Beta particles & Photon emitters (pCi/L)	1.37	0.0-4.1	50		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
2015	Turbidity (NTU)	0.34	100	.3	Soil Runoff
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).					

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**	**Longview Water**
Aluminum	ppm	0.14-0.37
Manganese	ppm	0.0015-0.0019
Nickel	ppm	0.00075-0.0014
Chloride	ppm	13.7-47.9
Sulfate	ppm	43.2-57.4
Copper	ppm	0.00045-0.00070
pH	pH units	8.9-9.1
Conductivity	µmhos/cm	232 - 357
Total Alkalinity as $CaCO_3$	ppm	14.9-33.1
Bicarbonate	ppm	14.9-30.2
Dissolved Solids	ppm	152-214
Calcium	ppm	17.3-19.9
Magnesium	ppm	3.65-4.99
Potassium	ppm	2.50 – 4.81
Cyanide	ppm	0.0122 – 0.0203
Sodium	ppm	14.7-30.3
Total Hardness as $CaCO_3$	ppm	58.3-70.4
Total Hardness in Grains	Grains/Gallon	3.41 – 4.11

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.