

# WATER QUALITY REPORT

## 2015

PWSID: TX1140001



### Big Spring Works Hard to Provide Quality Water to You!

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2015. As in the past, we purchase our surface water from Colorado River Municipal Water District as a member city who uses water from O.H. Ivie, J.B. Thomas, E.V. Spence, Moss Lake, and Ward County Well Field and are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.



### Our Community, Conserving Our Water

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtsrc=>

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



### HEALTH INFORMATION ABOUT YOUR 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 EPA's Safe Drinking Water Hotline (1-800-426-4791). You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons 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 providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

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. The City of Big Spring 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 or cooking. If you are concerned about lead in your drinking 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>.

### INFORMATION ABOUT SECONDARY CONTAMINANTS

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

### WHY PROVIDE A WATER QUALITY REPORT EACH YEAR?

The United States Congress has directed the Environmental Protection Agency (EPA) to require public water systems to report annually on the quality of the drinking water they serve. The City of Big Spring Water Utility supports the regulation and is providing this report to all households in our service area. This report is about your drinking water sources and quality; regulations that protect your health; programs that protect the high water quality of our supply sources; and the treatment processes that assure our drinking water meets or surpasses all federal and state standards.

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.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

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.
- 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, which 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, 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 which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which 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 causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.



### PUBLIC PARTICIPATION OPPORTUNITIES

We encourage public interest and participation in our community's decisions affecting drinking water. Informed consumers are our best allies in maintaining safe drinking water. Regular City Council meetings occur on the 2nd and 4th Tuesdays each month, beginning at 5:30 in the City Council Chambers at 307 East 4th St. We will also be happy to answer any questions about this report, as well as any you may have concerning your water. Call Johnny Womack at 432-264-2501.

# WaterQuality Results Report 2015

## COLIFORM BACTERIA

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	1 sample was positive		0	N	Naturally present in the environment

## LEAD AND COPPER

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

	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Violation	Likely Source of Contamination
Copper (ppm)	9/30/2013	1.3	1.3	0.264	0	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead (ppm)	9/30/2013	0	15	4.78	0	N	Corrosion of household plumbing systems; Erosion of natural deposits

## REGULATED CONTAMINANTS

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.

Disinfectants and Disinfection By-Products	Date Tested	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)* (mg/L)	2015	24	9.5 - 28.9	No goal for the total	60	N	By-product of drinking water chlorination
Total Trihalomethanes (TTHm)* (mg/L)	2015	52	19.1 - 62.1	No goal for the total	80	N	By-product of drinking water chlorination

## INORGANIC CONTAMINANTS

Disinfectants and Disinfection By-Products	Date Tested	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
Antimony (mg/L)	2015	.00044	.00044 - .00044	6	6	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition
Barium (mg/L)	2015	0.13	0.13 - 0.13	2	2	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (mg/L)	2015	0.00058	0.00058 - 0.00058	100	100	N	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (mg/L)	5/29/2013	0.0572	0.0572 - 0.0572	200	200	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
Fluoride (mg/L)	2015	0.152	0.152 - 0.152	4	4.0	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (mg/L)	2015	0.318	0.318 - 0.318	10	10	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (mg/L)	2015	0.0012	0.0012 - 0.0012	50	50	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

## RADIOACTIVE CONTAMINANTS

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
Beta/Photon emitters (ppm)	5/29/2013	7.8	7.8-7.8	0	50	N	Decay of natural and man-made deposits

## TURBIDITY

	Limit (TT)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	4.5 NTU	Y	Soil runoff
Lowest monthly % meeting limit	0.3 NTU	91%	Y	Soil runoff

Information Statement: 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

## FILTER BACKWASH RULE

The Filter Backwash Recycling Rule requires public water systems to review their backwash water recycling practices to ensure that they do not compromise microbial control.

Violation Type	Violation Begin	Violation End	Violation Explanation
Failure to submit plant schematic (FBR)	05/26/2010	2015	We failed to submit to our regulator a plant schematic showing the origin of all flows which are recycled, the hydraulic conveyance used to transport them, and the location where they are re-introduced back into the treatment plant.

## INTERIM ENHANCED SWTR

The Interim Enhanced Surface Water Treatment Rule improves control of microbial contaminants, particularly Cryptosporidium, in systems using surface water, or ground water under the direct influence of surface water. The rule builds upon the treatment technique requirements of the Surface Water Treatment Rule.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	1/1/2015	1/31/2015	Turbidity levels, though relatively low, exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.
SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	3/1/2015	3/31/2015	One turbidity measurement exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.

## LEAD AND COPPER RULE

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
Follow-up or routine tap M/R (LCR)	10/01/2013	11/25/2014	Failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

## SURFACE WATER TREATMENT RULE (SWTR)

The Surface Water Treatment Rule seeks to prevent waterborne diseases caused by viruses, Legionella, and Giardia lamblia. The rule requires that water systems filter and disinfect water from surface water sources to reduce the occurrence of unsafe levels of these microbes.

Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring, RTN/RPT Major (SWTR/FILTER)	08/01/2014	08/31/2014	Failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
Res disinfect concentration (SWTR)	06/01/2014	06/30/2014	Measurements of disinfectant indicate that adequate disinfection did not occur for the period indicated. Adequate disinfection is required to ensure safe drinking water.

## 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. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring (TCR), Routine minor	02/01/2014	02/28/2014	Failed to complete all the required tests of our drinking water for the contaminant and period indicated.

### \*UNIT DESCRIPTIONS:

**ppm** (Parts per million), **ppb** (Parts per Billion), **mg/L** (milligrams per liter)

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

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

**MCL:** Maximum Contaminant Level – highest level of contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible.

**MCLG:** Maximum Contaminant Level Goal – 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 a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**N/A:** Not Applicable

**ND:** Not detected

**NTU:** Nephelometric turbidity units

**MRDLG:** Maximum Residual Disinfectant Level Goal – level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.