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Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo o hable con alguien que lo entienda bien. PWSID: TX1140001



# WATER QUALITY REPORT 2011

## 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 2011. As in the past, we purchase surface water 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 of our water users.

### OUR COMMUNITY, CONSERVING OUR WATER

A Source Water Susceptibility Assessment for your drinking water sources(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?wtrsrc=>

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

#### 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 Tony Modisette at 432-264-2389 or Todd Darden at 432-264-2500.

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 that may be present in source water include:

- 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 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
  - Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

### 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 that may be present in source water include:



COLIFORM BACTERIA	
Maximum Contami- Total Coliform Maximum	1 positive monthly sample.
nant Level Goal	2 samples were positive
Fecal Coliform or E. Coli Maximum	
Total No. of Positive E. Coli or Fecal Coliform Samples	0
Violation	Y
Likely Source of Contamination	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 AL	# Sites Over Violation	Likely Source of Contamination
09/30/2011	1.3	1.3	0.227	0	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
09/30/2011	0	15	3.13	0	Corrosion of household plumbing systems; Erosion of natural deposits.

### REGULATED CONTAMINANTS

Disturbants and Disinfection By-Products	Date tested	Highest Level Detected	Range of MCLG Levels Detected	MCL	Violation	Likely Source of Contamination
Halocetic Acids (HAA5)* (ppb)	2011	17	2.6 - 27.1	No goal for the total	N	By-product of drinking water chlorination.
Total Trihalomethanes (TTHM)* (ppb)	2011	64	24.8 - 71.3	No goal for the total	N	By-product of drinking water chlorination.

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

INORGANIC CONTAMINANTS							
Fluoride (ppm)	02/17/2011	0.19	0.19 - 0.19	4	4.0	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum
Nitrate (measured as Nitrogen) (ppm)	2011	0.28	0.26 - 0.28	10	10	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrate (measured as Nitrogen) (ppm)	2011	0.02	0.02 - 0.02	1	1	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES				
2,4,5-TP (Silvex) (ppb)	50	50	N	Residue of banned herbicide.
2,4-D (ppb)	70	70	N	Runoff from herbicide used on row crops.
Alachlor (ppb)	0	2	N	Runoff from herbicide used on row crops.
Arazine (ppb)	3	3	N	Runoff from herbicide used on row crops.
Benzo(a)pyrene (ppt)	0	200	N	Leaching from linings of water storage tanks and distribution lines.
Carbofuran (ppb)	40	40	N	Leaching of soil fumigant used on rice and alfalfa.
Chlordane (ppb)	0	2	N	Residue of banned termicide.
Dalapon (ppb)	200	200	N	Runoff from herbicide used on rights of way.
D (2-ethylhexyl) adipate (ppb)	400	400	N	Discharge from chemical factories.
D (2-ethylhexyl) phthalate (ppb)	0	6	N	Discharge from rubber and chemical factories.
Dibromochloropropane (DBCP) (ppt)	0	0	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dinoseb (ppb)	7	7	N	Runoff from herbicide used on soybeans and vegetables.
Endrin (ppb)	2	2	N	Residue of banned insecticide.
Ethylene dibromide (ppt)	0	50	N	Discharge from petroleum refineries.
Heptachlor (ppt)	0	400	N	Residue of banned termicide.
Heptachlor epoxide (ppt)	0	200	N	Breakdown of heptachlor.
Hexachlorocyclopentadiene (ppb)	0	1	N	Discharge from metal refineries and agricultural chemical factories.
Hexachlorobenzene (ppb)	50	50	N	Discharge from chemical factories.
Lindane (ppt)	200	200	N	Runoff/leaching from insecticide used on cattle, lumber, gardens.
Methoxychlor (ppb)	40	40	N	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
Oxamyl (Vydal) (ppb)	200	200	N	Runoff/leaching from insecticide used on apples, potatoes and tomatoes.
Pentachlorophenol (ppb)	0	1	N	Discharge from wood preserving factories.
Picloram (ppb)	500	500	N	Herbicide runoff.
Simazine (ppb)	4	4	N	Herbicide runoff.
Toxaphene (ppb)	0	3	N	Runoff/leaching from insecticide used on cotton and cattle.

VOLATILE ORGANIC CONTAMINANTS				
1,1,1-Trichloroethane (ppb)	200	200	N	Discharge from metal degreasing sites and other factories.
1,1,2-Trichloroethane (ppb)	3	5	N	Discharge from industrial chemical factories.
1,1-Dichloroethane (ppb)	7	7	N	Discharge from industrial chemical factories.
1,2,4-Trichlorobenzene (ppb)	70	70	N	Discharge from textile-finishing factories.
1,2-Dichloroethane (ppb)	0	5	N	Discharge from industrial chemical factories.
1,2-Dichloropropane (ppb)	0	5	N	Discharge from industrial chemical factories.
Benzene (ppb)	0	5	N	Discharge from factors; Leaching from gas storage tanks and landfills.
Carbon Tetrachloride (ppb)	0	5	N	Discharge from chemical plants and other industrial activities.
Chlorobenzene (ppb)	100	100	N	Discharge from chemical and agricultural chemical factories.
Dichloromethane (ppb)	0	5	N	Discharge from pharmaceutical and chemical factories.
Ethylbenzene (ppb)	700	700	N	Discharge from petroleum refineries.
Styrene (ppb)	100	100	N	Discharge from rubber and plastic factories; Leaching from landfills.
Tetrachloroethylene (ppb)	0	5	N	Discharge from factors and dry cleaners.
Toluene (ppm)	1	1	N	Discharge from petroleum factories.
Trichloroethylene (ppb)	0	5	N	Discharge from metal degreasing sites and other factories.
Vinyl Chloride (ppb)	0	2	N	Leaching from PVC piping; Discharge from plastics factories.
Xylenes (ppm)	10	10	N	Discharge from petroleum factories; Discharge from chemical factories.
cis-1,2-Dichloroethylene (ppb)	70	70	N	Discharge from factors.
o-Dichlorobenzene (ppb)	600	600	N	Discharge from industrial chemical factories.
p-Dichlorobenzene (ppb)	75	75	N	Discharge from industrial chemical factories.
trans-1,2-Dichloroethylene (ppb)	100	100	N	Discharge from industrial chemical factories.

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

**\*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. MCLs 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.  
**N/A:** Not Applicable  
**ND:** Not detected  
**NTU:** Nephelometric turbidity units

### 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). 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 drinking water. These people should seek advice about 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).

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 pipes 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.

TCEQ recently completed a review of Public Notice violations that were historically present in our database. This review was done at the request of the Environmental Protection Agency and was triggered by the TCEQ migration to the Safe Drinking Water Information System (SDWIS). Following EPA guidelines TCEQ returned to compliance many PN violations that had existed, but may not been reported on a prior year CCR. We strongly encourage you to check Drinking Water Watch (<http://dww.tceq.texas.gov/DWWW/>) for the current status of any violations displayed on this page.

Violation Type	Violation Begin	Violation End	Violation Explanation
Failure to submit plant schematic (FBR)	05/26/2010		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
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.
Public Notification Rule	04/01/2011	04/30/2011	The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).
Total Coliform	07/12/2011	10/28/2011	Public notice rule linked to violation
	04/01/2011	04/30/2011	Public notice rule linked to violation
	07/12/2011	10/28/2011	Public notice rule linked to violation

Maximum Contaminant Level Goal	1 positive monthly sample.
Highest No. of Positive Fecal Coliform or E. Coli Maximum	2 samples were positive
Total No. of Positive Fecal Coliform Samples	0
Violation	Y
Likely Source of Contamination	Naturally present in the environment.