2009 Annual Drinking Water Quality Report

City of Center – Public Water System #2100001

(936)-598-2941

Our drinking water is regulated by the Texas Commission on Environmental Quality (TCEQ) and they have determined that certain water quality issues exist which prevent our water from meeting all of the requirements as stated in the Federal Drinking Water Standards. Each issue is listed in this report as a violation and we are working closely with the TCEQ to achieve solutions.

En Español – Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (936)-598-2941 para hablar con una persona bilingue en español.

Special Notice – Required for ALL community public water supplies:
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; 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 from the Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap 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 before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

The City of Center obtains its source water from two distinct surface water reservoirs. Raw water is drawn from both Lake Center, or Mill Creek, and Pinkston Reservoir. A Source Water Susceptibility Assessment for your drinking water sources 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 will allow us to focus our source water protection strategies. Some of this source water assessment information will be available later this year on Texas Drinking Water Watch at http://dww.tceq.state.tx.us/DWW/. For more information on source water assessments and protection efforts at our system, please contact us.

Public Participation Opportunities: Center's City Council meets the second and fourth Mondays of each month at 5:00pm in City Hall. To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us at (936)-598-2941.

All drinking water may contain contaminants. When drinking water meets federal standards there may not be any health-based benefits to purchasing bottled water or point of use devices. 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).

Secondary Constituents
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 concerns. Therefore, secondaries are not required to be reported in this document, but they may greatly affect the appearance and taste of your water.

The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The US EPA requires water systems to test for up to 97 constituents.

DEFINITIONS: (terms used in tables)

- Maximum Contaminant Level (MCL) – The highest permissible contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL) – The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- 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 contamination.
- 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 treatment or other requirements which a water system must follow.
- Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water.
- MFL – million fibers per liter (a measure of asbestos)
- pCi/L – picocuries per liter (a measure of radioactivity)
- ppm – parts per million or milligrams per liter (mg/L) - one part per million
- ppb – parts per billion or micrograms per liter - one part per billion
- ppt – parts per trillion or nanograms per liter – one part per trillion
- ppq – parts per quadrillion or picograms per liter – one part per quadrillion

Inorganic Contaminants

Year (Range)	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2009	Barium	0.047	0.047	0.047	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2009	Chromium	0.4	0.4	0.4	100	100	Ppb	Discharge from steel and pulp mills; erosion of natural deposits.
2009	Fluoride	0.4	0.05	0.75	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2009	Nitrate	0.7	0.1	1.84	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Organic Contaminants

Year (Range)	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2009	Di(2-ethylhexyl) phthalate	0.16	0.13	0.18	6	0	ppb	Discharge from rubber and chemical factories.
2009	Hexachlorocyclopentadiene	0.02	0	0.04	50	50	ppb	Discharge from chemical factories.

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2009	Chloramine	1.61	0.63	3.4	4.0	<4.0	ppm	Disinfectant used to control microbes.

Disinfection By-Products

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2009	Total Haloacetic Acids	52.6	34.6	66	60	ppb	Byproduct of drinking water disinfection.
2009	Total Trihalomethanes	64.4	40.2	102.9	80	ppb	Byproduct of drinking water disinfection.

Unregulated Initial Distribution System Evaluation for Disinfection Byproducts

This evaluation is sampling required by EPA to determine the range of total trihalomethane and haloacetic acid in the system for future regulations. The samples are not used for compliance, and may have been collected under non-standard conditions. EPA also requires the data to be reported here.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2009	Total Haloacetic Acids	49.4	8.8	70.6	NA	ppb	Byproduct of drinking water disinfection.
2009	Total Trihalomethanes	56.9	28.8	101.5	NA	ppb	Byproduct of drinking water disinfection.

Unregulated Contaminants – Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year(Range)	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2009	Chloroform	73.49	54.53	92.45	ppb	Byproduct of drinking water disinfection.
2009	Bromodichloromethane	14.74	13.79	15.69	ppb	Byproduct of drinking water disinfection.
2009	Dibromochloromethane	2.15	1.61	2.69	ppb	Byproduct of drinking water disinfection.

Turbidity - Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Year (Range)	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2009	Turbidity	0.30	100	0.3	NTU	Soil runoff.

Lead and Copper

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Contaminant
2007	Lead	1	0	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits.
2007	Copper	0.049	0	1.3	ppm	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

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 for 30 seconds to 2 minutes before using 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.

Total Organic Carbon - Total Organic Carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2009	Source Water	5.8	4.0	9.7	ppm	Naturally present in environment.

Total Coliform – Reported Monthly Tests Found No Coliform Bacteria
Fecal Coliform – Reported Monthly Tests Found No Fecal Coliform Bacteria

Secondary and Other Not Regulated Constituents (no associated adverse health effects)

Year (Range)	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2009	Aluminum	0.201	0.201	0.201	0.05	ppm	Abundant naturally occurring element.
2009	Bicarbonate	45	23	66	NA	ppm	Corrosion of carbonate rocks such as limestone.
2009	Calcium	18.7	18.7	18.7	NA	ppm	Abundant naturally occurring element.
2009	Chloride	16	14	19	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2009	Hardness as Ca/Mg	42	41	63	NA	ppm	Naturally occurring calcium and magnesium.
2009	Magnesium	3.9	3.9	3.9	NA	ppm	Abundant naturally occurring element.
2009	Manganese	0.0006	0.0006	0.0006	0.05	ppm	Abundant naturally occurring element.
2009	pH	8.2	7.8	8.6	>7.0	units	Measure of corrosivity of water
2009	Sodium	19	8	29	NA	ppm	Erosion of natural deposits; byproduct of oil field activity.
2009	Sulfate	44	37	52	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2009	Total Alkalinity as CaCO3	45	23	66	NA	ppm	Naturally occurring soluble mineral salts.
2009	Total Dissolved Solids	132	110	154	1000	ppm	Total dissolved mineral constituents in water.
2009	Total Hardness as CaCO3	53	53	53	NA	ppm	Naturally occurring calcium.
2009	Zinc	0.005	0.005	0.005	5	ppm	Moderately abundant naturally occurring element; used in the metal industry.

Violations

Violation Type	Health Effects	Duration	Explanation	Steps to Correct
Facility: Aiken WTP New Train / E. Coli – Failure to monitor source (LT2), major	We are required to monitor the source water for either Cryptosporidium or E. coli. Results of this monitoring can indicate that additional treatment is needed. During this compliance period, we did not correctly monitor as required.	5/1/2009 to 5/31/2009	We failed to submit E. coli samples for the specified reporting period.	Under guidance of the TCEQ, we submitted additional samples to meet the monitoring requirements. We are now in compliance.
Facility: Aiken WTP New Train / E. Coli – Failure to monitor source (LT2), major	We are required to monitor the source water for either Cryptosporidium or E. coli. Results of this monitoring can indicate that additional treatment is needed. During this compliance period, we did not correctly monitor as required.	9/1/2009 to 9/30/2009	We failed to submit E. coli samples for the specified reporting period.	Under guidance of the TCEQ, we submitted additional samples to meet the monitoring requirements. We are now in compliance.
Facility: Aiken WTP New & Old Trains / Filtration - Failure to maintain disinfection contact time 4 hours	Inadequately treated water may contain diseases-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	1/1/2009 to 1/31/2009	We inaccurately reported disinfection values on our monthly operating reports which did not meet the state specified operational guidelines specific to our treatment plants.	Our TCEQ monthly reports were corrected and resubmitted. The TCEQ has approved revisions to our operational guidelines which were revised by our engineers. We are now in compliance.
Facility: Aiken WTP New & Old Trains / Filtration - Failure to maintain disinfection contact time 4 hours	Inadequately treated water may contain diseases-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	2/1/2009 to 2/28/2009	We inaccurately reported disinfection values on our monthly operating reports which did not meet the state specified operational guidelines specific to our treatment plants.	Our TCEQ monthly reports were corrected and resubmitted. The TCEQ has approved revisions to our operational guidelines which were revised by our engineers. We are now in compliance.
Facility: Aiken WTP New & Old Trains / Filtration - Failure to maintain disinfection contact time 4 hours	Inadequately treated water may contain diseases-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	3/1/2009 to 3/31/2009	We inaccurately reported disinfection values on our monthly operating reports which did not meet the state specified operational guidelines specific to our treatment plants.	Our TCEQ monthly reports were corrected and resubmitted. The TCEQ has approved revisions to our operational guidelines which were revised by our engineers. We are now in compliance.
Facility: Aiken WTP New & Old Trains / Filtration - Failure to maintain disinfection contact time 4 hours	Inadequately treated water may contain diseases-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	4/1/2009 to 4/30/2009	We inaccurately reported disinfection values on our monthly operating reports which did not meet the state specified operational guidelines specific to our treatment plants.	Our TCEQ monthly reports were corrected and resubmitted. The TCEQ has approved revisions to our operational guidelines which were revised by our engineers. We are now in compliance.
Facility: Aiken WTP New & Old Trains / Filtration - Failure to maintain disinfection contact time 4 hours	Inadequately treated water may contain diseases-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	5/1/2009 to 5/31/2009	We inaccurately reported disinfection values on our monthly operating reports which did not meet the state specified operational guidelines specific to our treatment plants.	Our TCEQ monthly reports were corrected and resubmitted. The TCEQ has approved revisions to our operational guidelines which were revised by our engineers. We are now in compliance.
Facility: Aiken WTP New & Old Trains / Filtration - Failure to maintain disinfection contact time 4 hours	Inadequately treated water may contain diseases-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	6/1/2009 to 6/30/2009	We inaccurately reported disinfection values on our monthly operating reports which did not meet the state specified operational guidelines specific to our treatment plants.	Our TCEQ monthly reports were corrected and resubmitted. The TCEQ has approved revisions to our operational guidelines which were revised by our engineers. We are now in compliance.

Water Conservation is Important – Although our system has an adequate supply of water to meet present and future demands, there are a number of reasons why it is important to conserve water.

- Saving water saves energy and associated costs of operating a water system, which can be passed on to the customers.
- Saving water reduces the need to construct costly new water systems, pumping and piping systems, and water tanks.
- Saving water lessens the strain on the water system during a dry spell or droughts, helping to avoid water use restrictions and ensure that essential fire fighting needs are maintained.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever possible. It is not hard to conserve water. Conservation tips include:

- Water lawns or gardens in early morning or evenings.
- Use mulch around plants and shrubs.
- Run dishwashers and washing machines when full, partial loads can use the same amount of water as full loads.
- Turn off the tap when brushing your teeth or shaving.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you can save more than 30,000 gallons a year.