

**2006 CONSUMER CONFIDENCE REPORT  
CITY OF ORANGE  
P.O. BOX 520, ORANGE, TEXAS 77630, Ph# (409)883-1081**

**SPECIAL NOTICE FOR THE ELDERLY, INFANTS, CANCER PATIENTS, PEOPLE WITH HIV/AIDS OR OTHER IMMUNE PROBLEMS:**

Some people may be more vulnerable to contaminations in drinking water than the general population. Immuno-compromised persons such as persons with cancer under-going 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 infections. EPA/ Centers for Disease Control and Prevention (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 (800) 426-4791.

**PUBLIC PARTICIPATION OPPORTUNITIES:** No formal meeting are scheduled but the public is invited to call (409)-883-1901, Monday thru Friday, 7:00 a.m. til 3:00p.m. with any questions that you might have about the City water system.

**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 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.

**WATER SOURCES:** 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 before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

**EN ESPANOL:** Este informe incluye informacion importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en espanol, favor de llamar. al telefono (409) 883-1081 par hablar con una persona bilingue en espanol..

**WHERE DO WE GET OUR DRINKING WATER?** Our drinking water is obtained from ground water sources. It come from the **Chicot Aquifer**. A Source Water Susceptibility Assessment for your drinking water sources is currently being updated by the Texas Commission on Environmental Quality and will be provided to us this year. The report will describe 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. For more information on source water assessments and protection efforts at our system, please contact us.

**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 (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 and 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.

**ABOUT THE FOLLOWING PAGES:** The pages that follow contains all of the federally regulated or monitored contaminants which have been found in your drinking water. U.S. EPA requires water systems to test up to 97 constituents.

**DEFINITIONS:**

**MAXIMUM CONTAMINANT LEVEL (MCL):** The highest level of a contaminant in drinking water. MCL's are set as close to the MCLG's as feasible using the best 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. MCLG's 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 the 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.

**ABBREVIATIONS:**

<b><u>(NTU):</u></b> Nephelometric Turbidity Units	<b>pCi/l:</b> Picocuries per Liter (a measure of radioactivity)
<b>MFL:</b> Million Fibers per Liter (a measure of Asbestos)	<b>PPB:</b> Parts per Billion or Micrograms per Liter(ug/L)
<b>PPM:</b> Part per Million or Milligrams per Liter (mg/L)	<b>PPQ:</b> Parts per Quadrillion or Picogram per Liter.
<b>PPT:</b> Parts per Trillion or Nanograms per Liter.	

**Inorganic Contaminants**

**City of Orange Ground Water System**

**PWS 1810004**

Year	Constituent	Average Level	Min. Level	Max. Level	MCL	MCLG	Unit of Measure	Source of Constituent
2005	Barium	0.295	0.295	0.295	2	2	ppm	Discharge of drilling waste. Discharge from metal refineries. Erosion of natural deposits.
2005	Flouride	0.5	0.5	0.5	4	4	ppm	Erosion of natural deposits. Water additives which promote strong teeth. Discharge from fertilizer and aluminum factories
2006	Nitrate	0.01	0	0.01	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks,sewage, erosion of natural deposits.
2005	Gross Beta Emitters	4.05	3.8	4.3	50	0	pci/l	Decay of natural and manmade deposits..

**Organic Contaminants TESTING WAIVED, NOT REPORTED, OR NONE DETECTED**

**Maximum Residual Disinfectant Level & Disinfectant Byproducts**

2006	Chlorine	1.04	0.43	2.17	4.0	4.0	ppm	Disinfectant used to control microbes.
2006	Total Halo-acetic Acids	3.8	3.1	4.5	60	N/A	ppb	By-product of drinking water disinfection.
2006	Total Trihalo-methane	23	20.9	25.1	80	N/A	ppb	By-product of drinking water disinfection.

**Unregulated Contaminants**

2003 2001	Chloro methane	4	0	12	N/A	N/A	ppb	
2003 2001	Chloroform	0.52	0	0.9	N/A	N/A	ppb	Byproduct of drinking water disinfection.
2003 2001	Bromoform	5.27	0	11	N/A	N/A	ppb	Byproduct of drinking water disinfection.
2003 2001	Bromodichl oromethane	1.85	0	3.4	N/A	N/A	ppb	Byproduct of drinking water disinfection.
2003 2001	Dibromo-chloro-methanes	5.08	0	9.3	N/A	N/A	ppb	Byproduct of drinking water disinfection.

**Lead & Copper**

Year	Constituent	The 90 <sup>th</sup> Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Constituent
2005	Lead	2.5	0	15	ppb	Corrosion of household plumbing system. Erosion of natural deposits.
2005	Copper	0.277	0	1.3	ppm	Corrosion of household plumbing system. Erosion of natural deposits. Leaching from wood preservatives.

**Coliforms-What are Coliforms?**

Coliform Bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease -causing organisms themselves,, they are often found in association with other microbes that are capable of causing disease. Coliform Bacteria are more hardy than many disease causing organisms; therefore their absence from water is a good indication that the water is micro bacteriologically safe for human consumption.

**Total Coliforms**

Year	Constituent	Highest Monthly Number of Positive Samples	MCL	Unit of Measure	Source of Constituent
2006	Total Coliform Bacteria	2	**	Presence	Naturally present in environment

\*\* Two or more Coliform found samples in any single month.

**Fecal Coliform– REPORTED MONTHLY TEST FOUND NO FECAL COLIFORM BACTERIA VIOLATION**

Violation Type	Health Effect	Duration	Explanation	Steps to Correct
<b>TOTAL COLIFORM NON-ACUTE MCL NO FECAL FOUND</b>	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..	08/01/06 thru 08/31/06	(2) samples out of the (24) taken for the month were questionable. (1) was un-suitable the other came back positive for coliform.	Both sample sites were retested as well as both upstream and downstream of each site. All samples came back negative for total coliform.

**Secondary and Unregulated Not Regulated Constituents.  
(No associated adverse health effects)**

Year Range	Constituents	Average Level	Min. Level	Max. Level	Limit	Unit of Measure	Source of Constituent
2005	Bicarbonate	203	203	203	N/A	ppm	Corrosion of carbonate rocks such as limestone.
2005	Calcium	15.4	15.4	15.4	N/A	ppm	Abundant naturally occurring element.
2005	Chloride	199	199	199	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2005	Copper	0.005	0.005	0.005	N/A	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2005	Iron	1080	1080	1080	300	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
2005	Lead	3	3	3	N/A	ppm	Corrosion of household plumbing systems; erosion of natural deposits.
2005	Magnesium	4.9	4.9	4.9	N/A	ppm	Abundant naturally occurring element.
2002 2002	Manganese	120	120	120	50	ppm	Abundant naturally occurring element.
2005	pH	7.3	7.3	7.3	7	Units	Measure of corrosivity of water.
2005	Sodium	169	169	169	N/A	ppm	Erosion of natural deposits; byproducts of oil field activity.
2005	Total Alkalinity as CaCO <sub>3</sub>	166	166	166	N/A	ppm	Naturally occurring soluble mineral salts.
2005	Total Dissolved Solids	529	529	529	1000	ppm	Total dissolved minerals constituents in water.
2005	Total Hardness as CaCO <sub>3</sub>	59	59	59	N/A	ppm	Naturally occurring Calcium.
2005	Zinc	0.009	0.009	0.009	5	ppm	Moderately abundant naturally occurring elements; used in the metal industry..
2005	Nickel	0.002	0.002	0.002	N/A	Ppm	Erosion of natural deposits.

Turbidity: NOT REQUIRED

1810004

2006 Annual Drinking Water Quality Report