City of Lubbock
Water Quality Report 2007

July 2008

Lubbock's Water Supply: Working Toward Sustainable Alternatives

Lubbock citizens use an average of 38 million gallons of water each day. Lubbock has plenty of water to take care of our needs today and into the future, but it is absolutely essential that we carefully manage and conserve existing water resources. The goal of our community should be to ensure that every drop counts and is used for a beneficial purpose. To meet the City's growing water supply needs, the Lake Alan Henry pipeline project will be completed by 2012. We also need to begin developing future water supplies now since many supply alternatives can take 20 to 30 years to develop.

For more than 50 years, the Canadian River Municipal Water Authority (CRMWA) has provided 75 to 85 percent of Lubbock's water. CRMWA provides untreated water to 11 member cities from Lake Meredith and Roberts County groundwater wells. The level of water in Lake Meredith has continued to decline and is now reaching record lows. Anticipating this situation, CRMWA completed construction of the first phase of the Roberts County Well Field in 2002 and will complete the next phase of expansion by 2009. Even with groundwater, the amount of water that CRMWA can provide will continue to decrease if Lake Meredith does not receive substantial inflows within the next few years.

Lubbock also receives water from the Bailey County Well Field (BCWF) near Muleshoe. If managed properly, the BCWF can continue to supply Lubbock water for an additional 40 years. If not conserved, BCWF water production could begin dropping significantly within five years. Until the Lake Alan Henry Pipeline Project is complete, the City will need to rely more heavily on the BCWF. Production from the well field can be reduced once the Lake Alan Henry pipeline project is complete.

Each Lubbock resident can assist in efforts to conserve water. If necessary, the City may consider entering Stage 2 of the Conservation and Drought Contingency Plan to reduce water use. The City is currently in Stage 1 of the Drought Contingency Plan due to low levels of Lake Meredith. Stage 1 of the Plan includes a standard for water use as follows: Water between the hours of 6 p.m. and 10 a.m. to reduce evaporation. Early morning between 3-7 a.m. is best for grass and bedding plants and is the least windy time of the day. Water each area of the yard no more than 2 times each week, with one and a half inches (1.5") total to conserve water. Avoid run-off by watering in short cycles and allowing soak times in between. Avoid running water needlessly down the drain.

We encourage everyone to get involved in water conservation. Although we have enough water to meet our needs today, it will take careful management of this most valuable resource to ensure adequate water for the future. For more information contact the Water Conservation and Education Department at 775-2595 or visit us online at http://water.ci.lubbock.tx.us

Where Does Our Water Come From?

The City of Lubbock's drinking water comes from both surface and groundwater sources. The Canadian River Municipal Water Authority (CRMWA) provides 75-85% of Lubbock's water supply from Lake Meredith and from Roberts County well field. Lake Meredith is located by Sanford, Texas about 164 miles north of Lubbock, and the Roberts County well field is located about 40 miles east of Lake Meredith. The City owned Bailey County Well Field (BCWF) provides 15-25% of the City's water supply and is located about 65 miles northwest of Lubbock. During 2007, the citizens of Lubbock used 10.8 billion gallons of water with 9.5 billion gallons supplied by CRMWA and 1.3 billion gallons came from BCWF.

Information on Backflow

Simply put, backflow means there is a potential for contamination in the water distribution system. Common causes for backflow are main breaks and high rates of water withdrawal (fire fighting), however these incidents can be avoided with the use of backflow prevention devices. The City of Lubbock works hard to prevent backflow through ordinances requiring backflow prevention devices on home irrigation systems and at commercial businesses.

Preventing backflow is an important part of maintaining a healthy water supply. The City of Lubbock's water distribution system is designed to carry water from the water treatment plant to the consumer. Cross connections, or connections between potable water in the distribution system to any non-potable water, exist. These connections make the water distribution system susceptible to backflow, which is the reversal of water flow from its intended direction.

There are two types of backflow: Backpressure backflow, which occurs when the pressure outside the water distribution system exceeds the pressure within the system and backsiphonage, which occurs when a partial vacuum is created in the system sucking non-potable water back into it. For more information, please visit the City of Lubbock Water Utilities website at http://water.ci.lubbock.tx.us or call 806-775-2589.

Source Water Assessment

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.

Este reporte incluye informacion importante sobre el agua potable. Para asistencia en espanol, favor de llamar al telefono 775-2592.

Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water Lubbock provides to its customers. The analysis was made by using data from the most recent EPA required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what is in your drinking water. This report represents data for the year 2007.

Helpful Definitions for Reading this Report

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 Contaminant Level (MCL) – The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Part per million (ppm) – One part per million. For example, if you had one million dollars, one part per million would equal one dollar.

Part per billion (ppb) – One part per billion. For example, if you had one billion dollars, one part per billion would equal one dollar.

mrem/year – millirems per year (a measure of radiation absorbed by the body)

NTU – nephelometric turbidity units (a measure of turbidity)

pCi/L – picocuries per liter (a measure of radioactivity)

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.

Important Information for Your Consideration

Special Information for People with Weakened Immune Systems

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 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).

About the Following Pages

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

What Do You Know About Bottled Water?

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. 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 concerning taste, odor or color of drinking water, please call 775-2587. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

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SUBSTANCE	MONITORING DATE*	MCL	HIGHEST LEVEL DETECTED	MCLG	RANGE	SOURCES OF CONTAMINATION
REGULATED AT TREATMENT PLANT						
BETA/PHOTON EMITTERS	2002 - 2005	50 pCi/L*	6.5 pCi/L	0	N/A	Decay of natural and man-made deposits
ALPHA EMITTERS	2002 - 2005	15 pCi/L	5 pCi/L	0	N/A	Erosion of natural deposits
RADIUM 226 & 228 COMBINED	2002 - 2005	5 pCi/L	0.7 pCi/L	0	N/A	Erosion of natural deposits
ARSENIC	2004 - 2005	10 ppb	3.9 ppb	0	2.1 - 3.9 ppb	Erosion of natural deposits; runoff from orchards
BARIUM	2004 - 2005	2 ppm	0.15 ppm	2 ppm	0 - 0.15 ppm	Erosion of natural deposits
FLUORIDE	2005 - 2007	4ppm	1.21 ppm	4 ppm	0.62 - 1.21 ppm	Erosion of natural deposits
NITRATE	2007	10 ppm	1.01 ppm	10 ppm	0.57 - 1.01 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion
NITRITE	2005	1 ppm	0.13 ppm	1 ppm	0.01 - 0.13 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion
TURBIDITY	2007	TT = 5 NTU	0.22 NTU	0	0.03 - 0.22 NTU	Soil runoff
		TT = % of samples <0.3 NTU	100%			
TOTAL ORGANIC CARBON	2007	TT	3.5 ppm	TT	1.8 - 3.5 ppm	Naturally present in environment
CHLORAMINES		MRDL=4 ppm	2.4 ppm annual avg.	MRDLG=4 ppm	0 - 3.6 ppm	Disinfectant used to control microbes
REGULATED IN THE DISTRIBUTION SYSTEM						
TOTAL TRIHALOMETHANES	2007	80 ppb	10.9 ppb average	N/A	0 - 23.4ppb	By-product of drinking water chlorination
HALOACETIC ACIDS (5)	2007	60 ppb	7.2 ppb average	N/A	0 -21.7 ppb	By-product of drinking water chlorination
TOTAL COLIFORM	2007	(systems that collect greater than or equal to 40 samples per month) 5% of monthly samples are positive	2.19%	0	0 - 2.19%	Naturally present in the environment
REGULATED AT THE CUSTOMERS' TAP						
LEAD	2006	15 ppb AL	1.1 ppb (90th percentile) No sites exceeded AL	0	< 0.3-5.7 ppb	Erosion of natural deposits; corrosion of household plumbing systems
COPPER	2006	1.3 ppm AL	0.108 ppm (90th percentile) No sites exceeded AL	1.3 ppm	0.008-0.302 ppm	Erosion of natural deposits; corrosion of household plumbing systems
UNREGULATED SUBSTANCES						
CHLOROFORM	2007	Not Regulated	1.3 ppb average	Not Regulated	0 - 2.5 ppb	Component of Total Trihalomethanes
BROMODICHLOROMETHANE	2007	Not Regulated	3.5 ppb average	Not Regulated	0 - 7.0 ppb	Component of Total Trihalomethanes
DIBROMOCHLOROMETHANE	2007	Not Regulated	6.8 ppb average	Not Regulated	0 - 13.6 ppb	Component of Total Trihalomethanes
BROMOFORM	2007	Not Regulated	2.5 ppb average	Not Regulated	0 - 5.1 ppb	Component of Total Trihalomethanes
SULFATE	2005 - 2007	300 ppm ^	215 ppm	Not Regulated	27 - 215 PPM	Mineral and Nutrient

The state allows us to monitor for some substances less than once per year because the concentrations of these substances do not change frequently. Some of our data, though representative, are more than one year old.
*The MCL for Beta/Photon Emitters is 4 mrem/year. The EPA considers 50 pCi/L to be a level for concern.
^^Exceed Secondary Constituent Levels. Substances that exceed secondary levels generally pose no health risks but may cause aesthetic problems relating to taste, odor, and other nuisance conditions.

ADDITIONAL MONITORING						
SUBSTANCE	MONITORING DATE*	MCL	HIGHEST LEVEL DETECTED	MCLG	RANGE	SOURCES OF CONTAMINATION
ALUMINUM	2004 - 2005	0.05-0.2ppm^	0.06 ppm	N/A	0 - 0.06 ppm	Water Treatment Chemical

CHLORIDE	2005 - 2007	300 ppm ^	319 ppm^^	N/A	10.2 - 319 ppm	Naturally occurring
TOTAL DISSOLVED SOLIDS	2005 - 2007	1000 ppm^	998	N/A	372 - 998 ppm	Naturally occurring
AMMONIA	2007	Not Regulated	0.490	N/A	0.108 - 0.490 ppm	Water Treatment Chemical
CALCIUM	2004 - 2005	Not Regulated	62.4 ppm	N/A	59 - 62 ppm	Naturally occurring
MAGNESIUM	2004 - 2005	Not Regulated	35 ppm	N/A	14.1 - 35 ppm	Naturally occurring
SODIUM	2004 - 2005	Not Regulated	232 ppm	N/A	33.1 - 232 ppm	Naturally occurring
NICKEL	2004 - 2005	Not Regulated	0.002 ppm	N/A	0.002 ppm	Erosion of natural deposits
ZINC	2004 - 2005	5 ppm^	0.004 ppm	N/A	0 - 0.004 ppm	Naturally occurring
HARDNESS	2005 - 2007	Not Regulated	283 ppm	N/A	214 - 283 ppm	Naturally occurring
CONDUCTANCE	2007	Not Regulated	1650 micromhos/cm	N/A	N/A	Naturally occurring
TOTAL ALKALINITY	2005 - 2007	Not Regulated	233 ppm	N/A	175 - 233 ppm	Naturally occurring

If you have any questions regarding water quality issues, please contact:

We're on the Web!!!
http://water.ci.lubbock.tx.us

- The Safe Drinking Water Hotline at 1-800-426-4791
- For questions about Lubbock's water quality, call 775-2614
  Monday – Friday between 7:30 a.m. and 4:30 p.m.
- For general questions about Lubbock Water Utilities, or additional copies of this brochure, call 775-2592
  Monday – Friday between 8 a.m. and 5 p.m.
- City Council meetings are held the 2nd and 4th Thursday of each month.
- Please Recycle this report when finished! For more information on Recycling in Lubbock, call 775-2482.
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Your Annual Water Quality Report

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