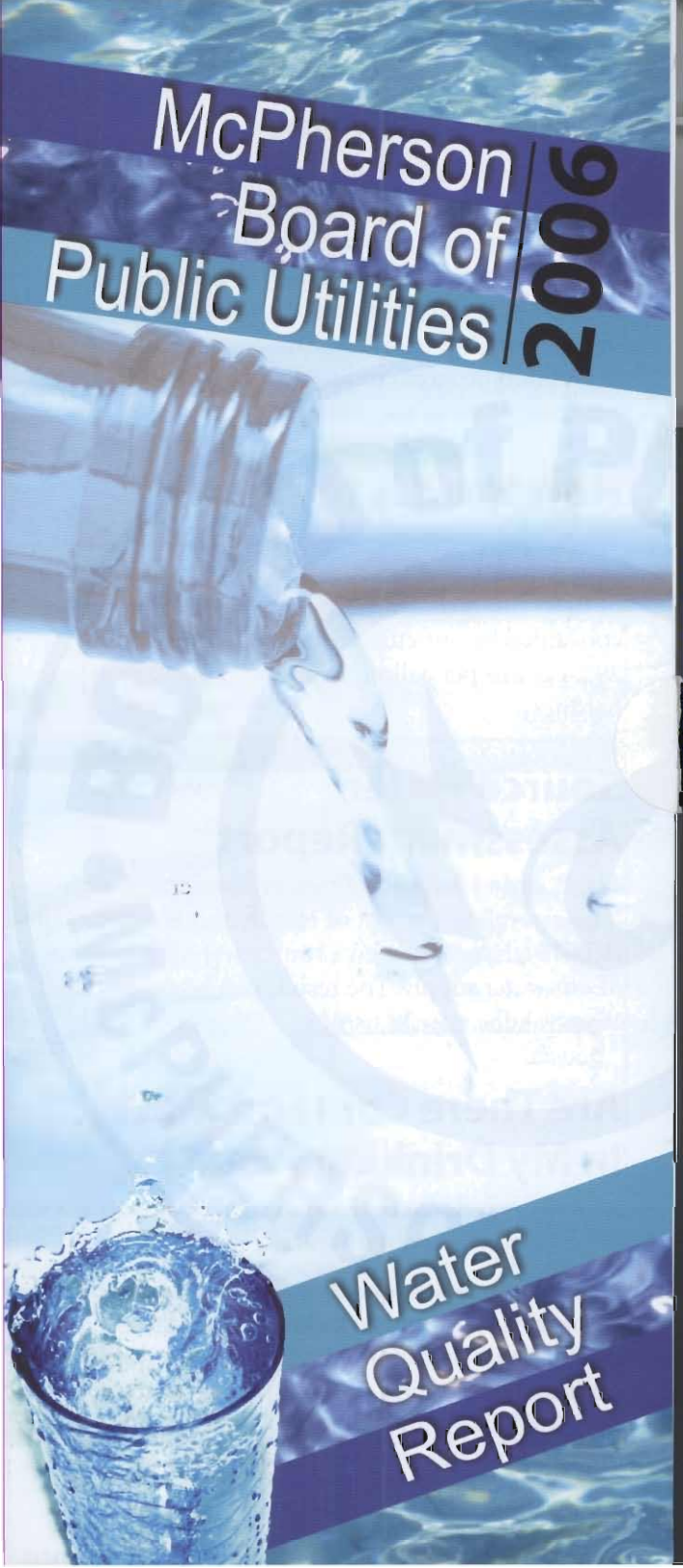
McPherson Board of Public Utilities

2006



Water Quality Report

2006 Water Quality Report

The McPherson Board of Public Utilities serves nearly 8,500 water customers in our service area, including four rural water districts. This Water Quality Report is provided to you as part of the Safe Drinking Water Act Amendment of 1996 and describes the quality of your drinking water and how the BPU complies with water regulations that protect your health.

Water Quality Reports for previous years can be accessed at the Board of Public Utilities website www.mcpbpu.com

In 2004 and 2005 the BPU removed two water wells from service due to elevated nitrate levels. In order to place these wells back in service, the Utility has decided to install a blending facility which will bring water from all wells to a central location and "blend" water with high nitrate levels with water from wells with a low nitrate level resulting in water with a level that is within acceptable limits. This system will require the addition of approximately 7500 feet of new water line, a 1 million gallon above ground storage tank, a 1 million gallon ground storage tank, a pump station, and a chlorination facility.

With an estimated cost of $12,000,000, the annual debt service for the new facility is approximately $ 1,000,000. In order to pay the debt service, the Utility will raise water rates roughly 100% effective Spring 2007. While this increase seems extreme, the system improvements are necessary in order to bring the wells back into production and supply a safe, long term water supply.

The BPU continues to maintain a safe drinking water supply for our customers. We hope that you will find this report useful and informative.

5 Simple Ways To Conserve Water

1. Install a water saver shower head.
2. Only water your lawn when needed. You can tell this by simply walking across your lawn. If you leave footprints, it's time to water.
3. Only run the dishwasher or washing machine with a full load.
4. Don't let the water run when brushing your teeth.
5. Check pipes, faucets and toilets for leaks.

We encourage our customers to stay abreast of information concerning the quality of the water they drink. If you have questions concerning this report, or your water utility, please contact the general manager's office at 400 E. Kansas Avenue in McPherson or phone us at 620-245-2525. Board meetings occur bi-monthly at the McPherson Municipal Center and are open for public attendance.

If you have questions regarding water quality, call

ENVIRONMENTAL PROTECTION AGENCY
Safe Drinking Water Hotline
(800) 426-4791
KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
(785) 296-5500
BOARD OF PUBLIC UTILITIES
General Manager's Office
(620) 245-2525
Customer Service Office
(620) 245-2515
24 hour emergency number
(620) 245-2555

BOARD OF PUBLIC UTILITIES
400 E. Kansas Avenue
PO Box 1008
McPherson, Kansas 67460

Keeping Our Water Safe

Federal and Kansas State regulations include procedures and schedules for monitoring water at the source, in the distribution system and at the tap. The Kansas Department of Health and Environment (KDHE) ensures the public water supply systems comply with all regulations, follow monitoring schedules, and report monitoring results. Our employees, who are state certified, work each day to provide the highest quality water to the citizens of McPherson. Water samples are collected and analyzed by Kansas certified independent labs and the Kansas Department of Health & Environment. The Board of Public Utilities continues to exceed all drinking water standards to maintain a safe drinking water supply for our customers.

Our Water Source

An underground aquifer called the Equus Beds is the only source of McPherson's water supply. The aquifer underlies portions of a four county area, which is about 900,000 acres in size and generally flows from the northwest to the southeast. Water is drawn from 12 underground wells located in and around the City of McPherson. Two overhead water towers with a combined capacity of 2,000,000 gallons serve as storage for the system. Because the Equus Beds is the only source of water supplied to our customers, we encourage the customers of the Board of Public Utilities to be water wise. Protecting the aquifer that provides the potable water to our community today, will help to ensure a safe, plentiful supply for years to come.

Is There Lead & Copper In My Water?

Copper naturally occurs in source water at very low levels. Lead may leach from faucets or plumbing components containing lead, causing some homes and buildings to have elevated lead levels at the tap if water stands in pipes for several hours. Leaching may also occur if copper pipes are joined with lead based solder. To minimize exposure to lead and copper in your water, run the water about 30 to 60 seconds if it has been standing in the pipes for more than 6 hours.

Regulatory requirements for collection of lead and copper became effective in 1992. Because of the low levels of lead and copper found in our system, KDHE has placed us on a reduced monitoring frequency of once every three years. Lead and copper testing was completed in 2005. The next tests will be completed in 2008.

Water Treatment

To prevent disease, McPherson complies with regulations to disinfect its water with chlorine. Added at the well, chlorine kills microbes that the water may naturally be exposed to before it is delivered to our consumers. The BPU has also implemented a backflow/cross-connection prevention program to protect against contamination of the water system.

How Hard Is My Water?

Water hardness is related to the amount of calcium, magnesium or iron minerals in the water. The more of these minerals, the harder the water. The water consumed by our customers ranges from 15.79-29.24 grains per gallon (or about 270-500 ppm) of hardness.

Source Water Assessment Report

The Board of Public Utilities, in partnership with the Kansas Department of Health and Environment (KDHE), has completed a source water assessment of our water supply. The results can be downloaded at www.kdhe.state.ks.us/nps.

Are There Contaminants In My Drinking Water?

As water travels over the land's surface or through the ground, it dissolves naturally occurring minerals and radioactive materials, and can be polluted by animals or human activity. 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 the water poses a health risk. 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.
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.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Organic contaminants, include 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.

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.

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. We test and treat our water according to EPA regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Additional Health Information

Nitrates in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocomprised 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 Cryptosporidum and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

The tables represented below list all of the drinking water contaminants that were detected during the reporting period. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk.

The EPA or the State of Kansas requires the utility to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Consequently, some of the data represented here is more than one year old.
The following are explanations of the abbreviations and terms used in the water quality substance tables that are printed below.

AI-Action Level - The concentration of a contaminant that triggers treatment or other requirements that a water system must follow.

LI-Langelier Index - A measure of the corrosiveness of water.

MCL-Maximum Contaminant Level - Highest level of a contaminant allowed in drinking water.

MCLG-Maximum Contaminant Level Goal - The level of a contaminant in drinking water below which there is no known or expected risk to health.

nd-Non Detected

PPM-One part per million

Pci/L-Picocuries per liter - Measurement of radioactivity

Unregulated Substance	Date Tested	Unit	Range Detected	Ideal Limit for Taste & Odor	Source
Alkalinity as CaCO3	2005	ppm	240-297	60-300	naturally occuring
Calcium	2005	ppm	95-180	75-200	naturally occuring
Chloride	2005	ppm	25-110	250	naturally occuring
Combined Radium	2006	pci/L	ND-1.1	5 pci/L	erosion of natural deposits
Corrosivity	2005	LI	0.42-1.2	0.0-1.0	naturally occuring
Iron	2005	ppb	nd-14.0	300	naturally occuring
Magnesium	2005	ppm	8.9-16.0	50-150	naturally occuring
Nickel	2005	ppb	3.1-5.6	100	naturally occuring
Potassium	2005	ppm	2.2-2.8	100	naturally occuring
Silica	2005	ppm	31-43	50	naturally occuring
Sodium	2005	ppm	17-28	100	naturally occuring
Specific conductivity	2005	umho/cm	580-1000	less than 1500	naturally occuring
Sulfate	2005	ppm	17-36	250	naturally occuring
Total dissolved solids	2005	ppm	350-610	500	naturally occuring
Total hardness	2005	ppm	270-500	400	naturally occuring
Total Phosphorus	2005	ppm	nd-0.33	5	naturally occuring
Zinc	2005	ppm	nd-0.014	5	naturally occuring
pH	2005	ph units	7.5-8.1	6.5-8.5	naturally occuring
DCPA (total)	2002	ppb	nd-0.582	na	herbicides

Regulated Substance	Unit	Date Tested	Range Detected	MCL	MCLG	Source
Arsenic	ppb	2005	3.1-4.8	50	na	Erosion of natural deposits
Barium	ppm	2005	0.120-0.250	2	2	Erosion of natural deposits
Chromium	ppb	2005	2.0-3.2	100	100	Erosion of natural deposits
Combined Radium (Ra-226 Ra-228)	pci/l	2006	ND-1.1	5	0	Erosion of natural deposits
Fluoride	ppm	2005	0.17-0.27	4	4	Erosion of natural deposits
Gross Alpha	pci/l	2006	ND-5	15	0	Erosion of natural deposits
Nitrate (N)	ppm	2006	0.91-7.66	10	10	Fertilizer, sewage, septic tanks
Selenium	ppb	2005	5.2-10.0	50	50	Erosion of natural deposits
Tetrachloroethylene	ppb	2006	nd-1.0	5	0	Leaching from PVC pipe; discharge from dry cleaners & factories
Atrazine	ppb	2005	nd-0.28	3	3	Runoff from herbicide used on row crops
Total Coliform Bacteria		2006	0	0		Bacterial regrowth.
Total Trihalomethanes	ppb	2006	nd-6.9	80	0	Byproduct of drinking water chlorination
Lead	ppb	2005	nd-5.2	AL=15 BPU had 0 sites above 15 ppb	90 % of homes tested must have levels less than 15 ppb	Corrosion of household plumbing
Copper	ppm	2005	0.15-1.3	AL=1.3 BPU found 1 site at 1.3 ppm	90 % of homes tested must have levels less than 1.3 ppm	Corrosion of household plumbing