CITY OF LITCHFIELD
WATER TREATMENT FACILITY
2010 WATER QUALITY REPORT

Our Commitment to You:

Employees work around the clock, seven days a week, 365 days a year, to ensure the water delivered to you meets or surpasses EPA standards and is safe to use and consume. This report is a summary of the quality of water provided to our customers in 2010 and meets federal regulations for our facility's Consumer Confidence Report. Included in this report is information about where your water comes from, what it contains, and how it compares to standards set forth by regulatory agencies.

This year, as in years past, your drinking water met all USEPA, ILLINOIS EPA, and Illinois Dept. of Public Health drinking water health standards. Our system vigilantly safeguards its surface water supply, and we are able to report that our facility had no violation of a contaminant level or of any other water quality standard for not only 2010 but also the past 16 years..

If you have any questions about this report or concerning your water system, please contact Ray Weller / Water Superintendent at 324-2250 Monday through Friday from 7 AM until 3 PM. We want our valued customers to be informed about their water quality. If you would like to know more, you are welcome to attend any of our regularly scheduled Public Works Committee meetings held on the last Thursday of the month at 6:00PM or our City Council meetings held on the first Tuesday of the month at 7PM. Both meetings are held in the Council Chambers located within the City Hall building at 120 East Ryder Street in Litchfield.

Our community uses surface water supplied by two man made reservoirs or lakes. Our primary source is Lake Lou Yaeger and our secondary source is the Litchfield Reservoir, both located in Litchfield.

Some people may be more vulnerable to levels of 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 for infections.People experiencing some types of these symptoms should seek advice about drinking water from health care providers. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline **(1-800-426-4791)**.

Drinking water, including bottled water, can reasonably be expected to contain 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 USEPA's Safe Drinking Water Hotline **(1-800-426-4791)**.

Due to our success in controlling Total Trihalomethanes, a known carcinogen or cancer causing agent, our facility is on reduced monitoring for these chemicals as well as for Lead and Copper. No vulnerability waivers have ever had to be issued to our facility.

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 can dissolve naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Possible contaminants consist of:

* **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 storm water 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 storm water runoff and residential uses;

* **Organic chemical contaminant,** including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems;

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

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

In addition to the informational section of this Water Quality Report, we have included for your review several tables that list contaminants that were detected in your water and the contaminants that were tested for but not detected in your water.

Source Water Assessment

A Source Water Assessment summary is included below for your convenience.

Illinois EPA considers all surface water sources of public water supply to susceptible to potential pollution problems. Hence the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion. A Lake Lou Yeager Resource Planning Committee was formed in 1999. Projects to improve water quality in the Lake have included: • An Environmental Quality Incentives Program (EQIP) focusing on sediment trapping in the upper portion of the watershed. EQIP is a voluntary based conservation program providing technical and financial assistance to individuals or groups facing natural resource problems. This program is administered by the Natural Resource Conservation Service (NRCS). • A Clean Lakes Diagnostic Study performed by the engineering firm of Crawford, Murphy and Tilly. • A Soils Project aimed at agricultural chemical residue management by encouraging strip tillage. In order to help farmers in adopting sound agricultural practices the Illinois Council on Best Management Practices (C-BMP) was formed. The Council is a coalition of agribusiness and agricultural producer organizations with the support of the University of Illinois Extension and serves as a clearinghouse on current research to protect water quality in Illinois. The Council also provides information and support to local watershed groups to help implement sound water quality initiatives and can offer educational assistance and help facilitate the technical and financial resources needed to carry out water quality objectives. For more information on C-BMP contact Dr. George Czapar, Springfield Extension Center, P.O. Box 8199, Springfield, IL 62791, email: g-czapar@uiuc.edu. For more information on BMPs, please refer to the web site at http://www.ctic.purdue.edu, as well as "A Guide to Illinois Lake Management" available from Illinois EPA. The Illinois Agronomy Handbook should also be used as guidance in implementing BMPs. In a national effort to ensure adequate protection against groundwater contamination from the herbicide atrazine, U.S. EPA made significant changes to the atrazine use label in 1990. It is a violation of law to apply, mix, or load atrazine within 50 feet of any well, including water wells, irrigation wells, livestock water wells, abandoned wells or sinkholes. In 1992, the atrazine label was further amended to protect surface waters by requiring a 200 foot application setback for lakes and reservoirs. In addition, there is a 66 foot setback from any point where field surface water runoff enters a stream or river. A concerted effort to incorporate best management practices for atrazine applications is on-going, an atrazine BMP document is available from Novartis Crop Protection, or by contacting the Illinois Fertilizer & Chemical Association at (800) 892-7122. In an effort to minimize the impact of livestock facilities on water resources on a statewide basis, livestock facilities are now regulated under the Livestock Management Facilities Act. This legislation is designed to keep Illinois' livestock industry productive and environmentally responsible by establishing requirements for design, construction, operation and management of livestock facilities and waste-handling structures. Detailed information on the Livestock Management Facilities Act may be found at the website http://www.agr.state.il.us. In addition, further watershed protection efforts and priorities of the Illinois EPA, Illinois Department of Agriculture, Illinois Department of Natural Resources, U. S. Department of Agriculture's Natural Resources Conservation Service, U.S. Army Corps of Engineers, and The Nature Conservancy are described and illustrated at the web site http://www.epa.state.il.us/water/unified-watershed-assessment/index.html.

2010 Regulated Contaminants Detected

Water Quality Test Results

Maximum Contaminant Level Goal or MCLG:	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Contaminant Level or MCL:	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum residual disinfectant level goal or 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 contaminants.
Maximum residual disinfectant level or MRDL:	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
na:	not applicable.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

Regulated Contaminants City of Litchfield

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloramines		1.3	1.0125 - 1.625	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)*		25	14.7 - 39	No goal for the total	60	ppb	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

Total Trihalomethanes (TThm)*		36	19 - 55	No goal for the total	80	ppb	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	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium		0.027	0.027 - 0.027	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride		0.9	0.9 - 0.9	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Manganese		12	12 - 12	150	150	ppb	N	Erosion of natural deposits.
Nitrate [measured as Nitrogen]		3	0.67 - 3	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium		11	11 - 11			ppm	N	Erosion from naturally occuring deposits: Used in water softener regeneration.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228		0.232	0.232 - 0.232	0	5	pCi/L	N	Erosion of natural deposits.
Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine		1	0 - 0.5	3	3	ppb	N	Runoff from herbicide used on row crops.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.3 NTU	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff.

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

Cryptosporidium: The City of Litchfield tested for Cryptosporidium and we are pleased to announce that during the sampling program we had no detections of cryptosporidium. Cryptosporidium is a parasite that can be waterborne which may cause severe gastroenteritis. Gastroenteritis symptoms include nausea, vomiting, and severe diarrhea which can last for several weeks.