

## LONG CREEK TOWNSHIP PUBLIC WATER SUPPLY

### 2017 WATER QUALITY

#### CONSUMER CONFIDENCE REPORT

This report summarizes the quality of water that we provided during 2016, including the source of water, what it contains and how it compares to standards set by regulatory agencies.

If you have any questions concerning this report please call Wayne Dotson at 864-5656, Monday through Friday from 8:00 a.m. — 4:00 p.m. The Board of Trustees meet every fourth Tuesday of each month at the Long Creek Township Hall, 2610 Salem School Road, at 5:00 p.m. We value your opinions and input and encourage you to attend these meetings.

*The Long Creek Township Water Department uses groundwater from three wells drilled into aquifers. An aquifer is a geological formation that contains water. The water is treated with chlorine for disinfection. Then fluoride is added to help prevent tooth decay. We also purchase water from Decatur from time to time. The City of Decatur uses surface water from Lake Decatur as its source of drinking water. The Sangamon River is the primary source of water for Lake Decatur. At certain times, the City has used wells located in DeWitt and Platt Counties to supplement the water supply. The water from these wells flows into the Sangamon River.*

Due to favorable monitoring history, aquifer characteristics and an inventory of potential sources of contamination, our water supply monitors at a frequency of every one to three years for SOCs, VOCs, 10Cs, and Lead & Copper.

The CCR will not be mailed unless you request a copy. If you would like a copy mailed to you please call 864-5656 between 8:00 am & 4:00 pm. Printed copies of this report are available upon request at: Long Creek Township Water Department located at 2610 Salem School Road, Decatur, IL 62521. You may also view the CCR on our website: [www.lcwater.us/doc/2017ccr](http://www.lcwater.us/doc/2017ccr).

# Annual Drinking Water Quality Report

LONG CREEK TOWNSHIP PWS

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Annual Water Quality Report for the period of January 1 to December 31, 2016

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of drinking water used by LONG CREEK TOWNSHIP PWS is Ground Water

For more information regarding this report contact:

Name Wayne Dotson, Water Superintendent

Phone 217-964-5656

Este informe contiene informacion muy importante sobre el agua que usted bebe. Tradilzcalo 6 hable con alguien que in entienda bien.

Source of Drinking Water	
<p>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.</p>	<p>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 EPAs Safe Drinking Water Hotline at (800) 426-4791.</p>
<p>Contaminants that may be present in source water include:</p> <p>Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.</p>	<p>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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.</p>
<p>- 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.</p>	<p>Some people may be more vulnerable to contaminants in drinking water than the general population.</p>
<p>Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.</p>	<p>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 (800-426-4791).</p>
<p>Organic chemical contaminants, 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.</p>	<p>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. We 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 <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a>.</p>
<p>Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.</p>	

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by the Long Creek Township Office or call our water operator at 217-864-5656. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you **may** access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Source of Water: LONG CREEK TOWNSHIP PWS To determine Long **Creek** Township PWS's susceptibility to groundwater contamination, a Well **Site** Survey, published in 1990 by the Illinois EPA, and Source Water Protection Plan were reviewed. Based on the information contained in these **documents**, one potential source of groundwater contamination is present that could pose a hazard to groundwater pumped by the Long Creek Township PWS community water supply wells. This is a quarrying of unconsolidated/consolidated material. Based upon this information, the Illinois EPA has determined that Long Creek Township PWS Wells #1 and #2 are not susceptible to ICC, VOC, or SOC contamination. Based on its proposed location and construction, the Illinois EPA anticipates that Well #3 will not be susceptible when it comes on line. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data for the wells. In anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that Long Creek Township PWS's community water supply wells are not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; there is **a hydrogeologic** barrier that restricts pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. However, having stated this, the U.S. EPA is proposing to require States to identify systems in karat, gravel and fractured rock aquifer systems as sensitive. Water systems utilizing these aquifer types would be required to perform routine source water monitoring. Because the community's wells are constructed in a confined aquifer, which should provide an adequate degree of protection to prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in the vulnerability determination.

#### Source Water Information

Source Water Name	Type of Water	Report Status	Location
<b>WELL 1</b> (45114)	GW	A	Inside Plant
<b>WELL 3</b> (01124)	GW	A	West of Plant
<b>WELL 4</b> (02064)	GW	A	South of Plant

## Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	No. of Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of contamination
0	1 positive monthly sample.	1		0		Naturally present in the environment.

## Lead and Copper

## Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2016	1.3	1.3	0.22	0	Ppm		Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
<b>Lead</b>	2016	C	15	5.3	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

## Water Quality Test Results

## Definitions:

The following tables contain scientific terms and measures, some of which may require explanation.

## Avg:

Regulatory compliance with some MCLs are based on running annual average of monthly samples.

## Level 1 Assessment:

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

## Level 2 Assessment:

A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total conform bacteria have been found in our water system on multiple occasions.

Water Quality Test Results

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 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 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.

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.

na: not applicable.

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

ppb: ppm: Treatment micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

Technique or TT: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

A required process intended to reduce the level of a contaminant in drinking water.

# Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloramines	12/31/2016	2.8	2 - 3	MRDLG - 4	MRDL - 4	PPrn		Water additive used to control microbes.
Haloacetic Acids (HAAS)	2016	14	13.7 - 13.7	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2016	36	35.9 - 35.9	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2016	26	26 - 26	a	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2016	0.91	0.41 - 0.41	2	2	ppm	•	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2016	0.476	0.476 - 0.476	4	4.0	ppm	•	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	2016	4.9	4.9 - 4.9		1.0	ppm	•	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	2010	43	43 - 43	150	150	ppb	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate [measured as Nitrogen]	2016	0.02	0 - 0.02	10	10	Ppm	•	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Sodium	09/17/2014	29	29 - 29			PI:un		Erosion from naturally occurring deposits; Used in water softener regeneration.
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Zinc	2016	0.086	0.086 - 0.086	5	5	FPI		This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal
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Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
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Combined Radium 226/228	2016	0.653	0.853 - 0.853	0	5	pCi/L	N	Erosion of natural deposits.
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Gross alpha excluding radon and uranium	01/08/2013	0.831	0.831 - 0.831	0	15	pCi/L	N	Erosion of natural deposits.
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Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLS	MCL	Units	Violation	Likely Source of Contamination
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Toluene	2316	0.00052	0 - 0.00052	1	1	ppm		Discharge from petroleum factories.
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## Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 3rd stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

The percentage of Total Organic Carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set by the IEPA.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE low-HIGH	VIOLATION	TYPICAL SOURCE
<b>Barium (ppm)</b>	2016	2	2	0.026	0.026-0.026	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<b>Chlorine (ppm)</b>	2016	[4]	[4]	1	1-1	No	Water additive used to control microbes
<b>Chlorite (ppm)</b>	2016	1	0.8	0.43	0.3-0.43	No	By-product of drinking water disinfection
<b>Fluoride (ppm)</b>	2016	4	4	0.699	0.604-0.699	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
<b>Haloacetic Acids (HAA5) (ppb)</b>	2016	60	NA	15	1.07-17.5	No	By-product of drinking water disinfection
<b>Nitrate (ppm)</b>	2016	10	10	7.9	2.19-7.9	No	; Runoff from fertilizer use Leaching from septic tanks, sewage: Erosion of natural deposits
<b>TTHMs [Total Trihalomethanes] (ppb)</b>	2016	80	NA	48	9.62-82.9	No	By-product of drinking water disinfection
<b>Total Organic Carbon (ppm)</b>	2016	TT	NA	1.92	0.86-1.92	No	Naturally present in the environment
<b>Turbidity' (NTU)</b>	2016	TT	NA	0.19	NA	No	Soil runoff
<b>Turbidity (Lowest monthly percent of samples meeting limit)</b>	2016	TT = 95% of samples meet the limit	NA	100	NA	No	Soil runoff

Tapwater samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
<b>Copper (ppm)</b>	2014	1.3	1.3	0.029	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
<b>Lead (ppb)</b>	2014	15	0	3.1	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

### STATE REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLO]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Sodium' (ppm)</b>	2016	NA	NA	6.2	6.2-6.2	No	Erosion of naturally occurring deposits; Used in water softener regeneration

### SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW HIGH	VIOLATION	TYPICAL SOURCE
Sulfate (ppm)	2016	250	NA	52	NA	No	Runoff! leaching from natural deposits; Industrial wastes

' Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their livers, kidneys, or central nervous systems, and may have an increased risk of getting cancer, Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

'Sodium is not currently regulated by the U.S. EPA However, the State has set an MCL for this contaminant for supplies serving a population of 1,000 or more.