



# WATER QUALITY REPORT

JANUARY 1 – DECEMBER 31 2015

Public Water Supply – ID# IL 1670300

The Village of Chatham is pleased to bring you the annual Water Quality Report for the period of January 1 to December 31, 2015. 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 Chatham is purchased ground water from the South Sangamon Water Commission (SSWC).

For more information regarding this report contact:

Dustin Patterson at (217) 341-3656.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

We have responded to water customers' concerns over the quality of their drinking water by collecting water samples at numerous residences and having the water tested by a certified laboratory. Although the samples have consistently met state and federal regulations, consumers' complaints continue to be evaluated and comments have been forwarded to the SSWC. Recently an Illinois Environmental Protection Agency (IEPA) mandated Compliance Performance Evaluation (CPE) was completed which detailed operational, maintenance and treatment issues at the water treatment plant. It is our hope that the SSWC is aggressive in addressing these issues and it will result in the production of a consistent, high quality water.

## Source Water and Drinking Water Contaminants

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 include:

- 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 contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also

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come from gas stations, urban storm water runoff, and septic systems.

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

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 at (800) 426-4791.

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. 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 (800) 426-4791.

## Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, you are welcome to attend any of our regularly scheduled meetings. Village Board meetings are held the second (2<sup>nd</sup>) and fourth (4<sup>th</sup>) Tuesday of each month at 6:00 P.M. at Village Hall. The source water assessment for our supply has been completed by the Illinois EPA. 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://epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Chatham's source of water is the South Sangamon Water Commission. Based on the information located in the Wellhead Protection Planning Map, no potential sources are located within the source water protection area of the wells. Information provided by the Leaking Underground Storage Tank and Site Remediation Program Sections of Illinois EPA did not indicate any additional sites with on-going remediation(s). The Illinois EPA has determined that the SSWC's Community Water Supply's source water has a high susceptibility to IOC, SOC, and bacteriological contamination. This determination is based on a number of criteria including: land use near the wells, location within a floodplain, well depth, and the available hydrogeologic data. In accordance with the U.S. EPA's Groundwater Rule, SSWC received two (2) Non-Compliance Advisory letters (NCAs) in 2013 for bacteriological detections in wells #5 and #6. The facility addressed the NCAs in a variety of ways such as chlorinating the well, secured well fittings, new sample tap(s), use of outside environmental consultants and reviewing the sampling protocol. While the NCAs have now been resolved, monitoring data is continually being tracked in regards to all active potable wells at SSWC. It should be noted, while the community's wells are properly constructed with sound integrity, the location of the wells is within a floodplain and well depth leaves the potential for bacteriological contamination. However, to date, all potential routes and sanitary defects have been mitigated such that the source water is adequately protected, monitoring data has not indicated a history of disease outbreak and the sanitary survey of the water supply did not indicate a bacteriological contamination threat within 1,000 feet of the source water.

## 2015 REGULATED CONTAMINANTS DETECTED

### Coliform Bacteria

| Maximum Contaminant Level Goal | Total Coliform Maximum Contaminant Level | Highest No. of Positive | 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   | N         | Naturally present in the environment. |

### Lead and Copper

|               | Date Sampled | Number of Samples | MCLG | Action Level (AL) | 90 <sup>th</sup> Percentile | # Sites over AL | Units | Violation | Likely Source of Contamination  |
|---------------|--------------|-------------------|------|-------------------|-----------------------------|-----------------|-------|-----------|---|
| <b>Copper</b> | 2015         | 30                | 1.3  | 1.3               | 0.662                       | 0               | ppm   | N         | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |
| <b>Lead</b>   | 2015         | 30                | 0    | 15                | 0                           | 0               | ppb   | N         | Corrosion of household plumbing systems; erosion of natural deposits.                                   |

### Definitions:

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

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

### Additional Information regarding Lead

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 at (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

### Disinfectants & Disinfection By-Products

| Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination |
|-----------------|------------------------|--------------------------|------|-----|-------|-----------|--------------------------------|
|-----------------|------------------------|--------------------------|------|-----|-------|-----------|--------------------------------|

|                                     |      |       |               |                       |          |     |   |  |
|-------------------------------------|------|-------|---------------|-----------------------|----------|-----|---|--|
| <b>Chlorine</b>                     | 2015 | 0.87  | 0.55 – 0.87   | MRDLG = 4             | MRDL = 4 | ppm | N | Water additive used to control microbes.   |
| <b>Haloacetic Acids (HAA5)</b>      | 2015 | 28.83 | 14.95 – 28.83 | No goal for the total | 60       | ppb | N | By-product of drinking water disinfection. |
| <b>Total Trihalomethanes (TTHM)</b> | 2015 | 24.45 | 20.98 – 24.45 | No goal for the total | 80       | ppb | N | By-product of drinking water disinfection. |

## Data from the South Sangamon Water Commission

Chatham purchases treated water from the SSWC. The tables below indicate detected contaminants from the finished water at the treatment plant.

### Inorganic Contaminants (from SSWC)

|                                       | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination  |
|---------------------------------------|-----------------|------------------------|--------------------------|------|-----|-------|-----------|---|
| <b>Barium</b>                         | 2015            | 0.019                  | 0.019 - 0.019            | 2.0  | 2.0 | ppm   | N         | Discharge of drilling wastes; discharge from metal refineries; erosion from natural deposits                              |
| <b>Fluoride</b>                       | 2015            | 0.886                  | 0.886 - 0.886            | 4.0  | 4.0 | ppm   | N         | Erosion of natural deposits; water additives which promote strong teeth; discharge from fertilizer and aluminum factories |
| <b>Iron</b>                           | 2015            | ND                     | ND                       |      | 1.0 | ppm   | N         | This contaminant is not currently regulated by USEPA. However, the state regulates. Erosion of natural deposits           |
| <b>Manganese</b>                      | 2015            | 22.7                   | 11.4 - 22.7              | 150  | 150 | ppb   | N         | This contaminant is not currently regulated by USEPA. However, the state regulates. Erosion of natural deposits.          |
| <b>Nitrate (measured as nitrogen)</b> | 2015            | 0.343                  | 0.343 - 0.343            | 10   | 10  | ppm   | N         | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits                               |
| <b>Sodium*</b>                        | 2015            | 122                    | 122 - 122                |      |     | ppm   | N         | Erosion from naturally occurring deposits: used in water softening regeneration   |

\*Sodium – There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who are concerned about sodium intake due to dietary precautions. If you are on a sodium restricted diet, consult a physician about this level.

### Radioactive Contaminants (from SSWC)

|                                | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination |
|--------------------------------|-----------------|------------------------|--------------------------|------|-----|-------|-----------|--------------------------------|
| <b>Combined Radium 226/228</b> | 2015            | 1                      | 0.91 - 1.53              | 0    | 5   | pCi/L | N         | Erosion of natural deposits    |

|  |      |   |             |   |    |       |   |                             |
|--|------|---|-------------|---|----|-------|---|-----------------------------|
| <b>Gross alpha excluding radon &amp; uranium</b> | 2015 | 2 | 1.12 - 1.58 | 0 | 15 | pCi/L | N | Erosion of natural deposits |
|--|------|---|-------------|---|----|-------|---|-----------------------------|

## Definition of Terms

**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. MCLG’s allow for a margin of safety.

**Maximum Contaminant Level or MCL:** The highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG’s as feasible using the best available treatment technology.

**Maximum residual disinfectant level goal or MRDLG:** The level of drinking water disinfectant below which there is no know 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.

**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 MCL’s are based on running annual average or monthly samples.

**ppm:** Milligrams per liter or parts per million – or one ounce in 7,350 gallons of water.