

## Source Water Assessment

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 City Hall or call our water operator at 442-3111. 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: JACKSONVILLE Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems; hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Causes of pollution to the lake include nutrients, siltation, suspended solids, and organic enrichment. Primary sources of pollution include agricultural runoff, land disposal (septic systems), and shoreline erosion. Figure 1 shows the watersheds for Lake Jacksonville and Maudslayi Terre Lake and the potential contamination sources located within them. Figure 2 shows the location of the Jacksonville community water wells, the Minimum and Maximum Setback Zones associated with each well and the delineated 5-Year Recharge Area. In addition, the potential sources of contamination located near the wells are also displayed. Due to the presence of potential sources and the unconfined nature of the wells, Illinois EPA considers these wells to be susceptible to contamination.

## Lead and Copper

## 2016 Regulated Contaminants Detected

### 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          | 09/18/2015   | 1.3  | 1.3               | 1.17            | 3               | ppm   | N         | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |

## Water Quality Test Results

### Definitions:

Avg:

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

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 coliform bacteria have been found in our water system on multiple occasions.

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:

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

ppm:

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

Treatment Technique or TT:

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

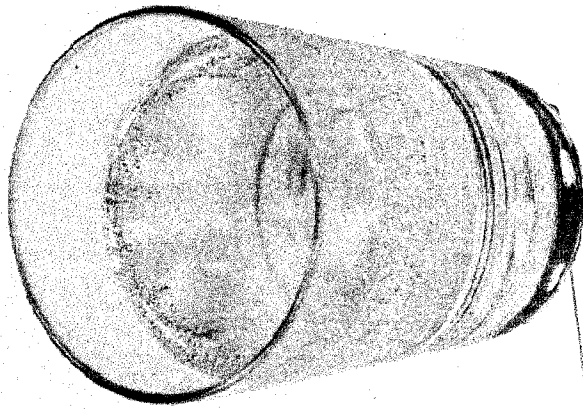
### Regulated Contaminants

| Disinfectants and Disinfection By-Products | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG                  | MCL      | Units | Violation | Likely Source of Contamination                                                                                             |
|--------------------------------------------|-----------------|------------------------|--------------------------|-----------------------|----------|-------|-----------|----------------------------------------------------------------------------------------------------------------------------|
| Chlorine                                   | 12/31/2016      | 1.5                    | 0.53 - 3                 | MRDLG = 4             | MRDL = 4 | ppm   | N         | Water additive used to control microbes.                                                                                   |
| Haloacetic Acids (HAA5)                    | 2016            | 28                     | 20.1 - 41                | No goal for the total | 60       | ppb   | N         | By-product of drinking water disinfection.                                                                                 |
| Total Trihalomethanes (TTHM)               | 2016            | 66                     | 52.3 - 69.5              | 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                                    | 08/10/2015      | 1.47                   | 1.47 - 1.47              | 0                     | 10       | ppb   | N         | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.                    |
| Barium                                     | 08/10/2015      | 0.085                  | 0.085 - 0.085            | 2                     | 2        | ppm   | N         | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.                                |
| Fluoride                                   | 08/10/2015      | 1.06                   | 1.06 - 1.06              | 4                     | 4.0      | ppm   | N         | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Nitrate [measured as Nitrogen]             | 2016            | 1                      | 1.12 - 1.12              | 10                    | 10       | ppm   | N         | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.                               |
| Sodium                                     | 08/10/2015      | 33.6                   | 33.6 - 33.6              |                       |          | ppm   | N         | Erosion from naturally occurring 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                    | 01/14/2015      | 1.51                   | 1.51 - 1.51              | 0                     | 5        | pCi/L | N         | Erosion of natural deposits.                                                                                               |
| Gross alpha excluding radon and uranium    | 01/14/2015      | 1.8 ,                  | 1.8 - 1.8                | 0                     | 15       | pCi/L | N         | Erosion of natural deposits.                                                                                               |

### Turbidity

|                                | Limit (Treatment Technique) | Level Detected | Violation | Likely Source of Contamination |
|--------------------------------|-----------------------------|----------------|-----------|--------------------------------|
| Highest single measurement     | 1 NTU                       | 0.16 NTU       | N         | Soil runoff.                   |
| Lowest monthly % meeting limit | 0.3 NTU                     | 100%           | N         | Soil runoff.                   |

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.



## 2016 Water Quality Report

City of Jacksonville

For more information regarding this report, contact:

Jack Cosner,  
Superintendent of  
Operations

(217)479-4660

WWW.JACKSONVILLEIL.COM

This report is intended to provide you with important information about your drinking water (for January 1 to December 31, 2016) and the efforts made by the City of Jacksonville water system to provide safe drinking water.

### SOURCE WATER ASSESSMENT

A Source Water Assessment Fact Sheet has been prepared by the Illinois EPA in cooperation with the US Geological Survey for the City of Jacksonville. The source of drinking water used by the City of Jacksonville is ground water under the direct influence of surface water.

Drinking water for the City of Jacksonville is supplied by the Jacksonville community water supply (CWS). Two lakes and three wells act as the source of this drinking water.

Illinois EPA considers all surface water sources of community water supplies to be susceptible to potential pollution problems; hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Causes of pollution to the lake include nutrients, siltation, suspended solids, and organic enrichment. Primary sources of pollution include agricultural runoff, land disposal (septic systems), and shoreline erosion.

Potential sources of contamination are also located near the well sites. Due to the presence of potential sources and the unconfined nature of the wells, Illinois EPA considers these wells to be susceptible to contamination. The Illinois EPA provides minimum protection zones of 400 feet for Jacksonville's wells. In 1991, the City of Jacksonville enacted a Maximum Setback Zone Ordinance providing for additional protection out to a distance of 2,500 feet from the wellhead.

### WHAT ELSE SHOULD I KNOW?

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.

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, ((800)426-4791).

### CHARACTERISTICS OF DRINKING WATER

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 may 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 come from gas stations, urban storm water runoff and septic systems; and
- Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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).

**City of Jacksonville Regulated Contaminants Detected in 2016 (collected in 2016 unless noted)**

[illegible]

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 call Jack Cosner, Superintendent of Operations, at (217) 719-4690. 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/wpswap-fact-sheets.pl>. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

[illegible]

# Annual Drinking Water Quality Report

CHAPIN

IL1370050

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

CHAPIN is Purchased Ground Water Under Direct Influence of Surface Water

For more information regarding this report contact:

Name Jeff McIntire  
Phone (217) 472-3111

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

## Source Water Information

### Source Water Name

CC 01-RAW GW Line from Jacksonville IL1370200 TP01

## Type of Water Source: Ground Water Under Direct Influence of Surface Water

### Location of Water Sources:

Primary – Ranney collector well at Naples, IL  
- Two gravel pack drilled wells at Naples, IL  
Source – Groundwater

Secondary – Lake Mauvaisterre  
- Lake Jacksonville  
Source - Surface

| Source of Drinking Water                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 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.                                                                                                                                                                                                                                                             |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 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).                                                                                                                                                                                                                                                                                                             |
| 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> . |

For further information, please contact Jeff McIntire, Water Superintendent, at (217) 472-3111 or attend any regularly scheduled board meeting, which are held at the Chapin Village Hall, 510 Everett Street, on the second Wednesday of each month at 7:00 p.m.