



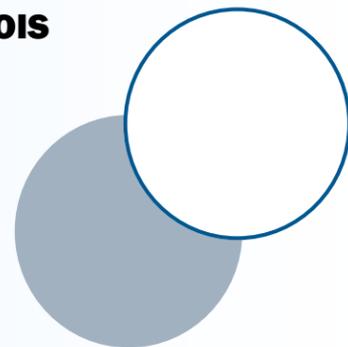
VILLAGE OF WESTERN SPRINGS

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# VILLAGE OF WESTERN SPRINGS ANNUAL WATER QUALITY REPORT

## Where Does My Water Come From?

Since the development of the Western Springs' water system in 1882, the Village has obtained its water from ground water sources. During the early years these included springs from which the community derives its name. In subsequent years, the Village became dependent upon well water and since

the late 1950's, the primary water source has been two deep wells. At the present time, the Village has three wells, two deep and one shallow. Of the two deep wells, one draws water from the Galesville aquifer and the other draws water from both Galesville and Mt. Simon aquifers. These

aquifers are underground rivers passing through sandstone formations which extend north into Wisconsin. The shallow well draws water from the Niagaran aquifer, an underground river that passes through a limestone formation.

## Source Water Assessment Summary

The Source Water Assessment has been completed and the Illinois EPA has determined that "Western Springs' wells #3 and #4 source water is not susceptible to contamination. 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 hydro-geological data on the well."

To view a summary version of the completed Source Water Assessment, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA web site at [www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl](http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl).

## Use of Outdoor Water

This summer enjoy the use of water for outdoor purposes without any restrictions; however, please practice conservancy.

## Water Bill Payment Made Easy

Automatic payment of your water bill is available to all residents. Your payment is electronically withdrawn from the account of your choice on the due date of your water bill.

Interested? The application is available at [www.wsprings.com](http://www.wsprings.com) or the Village Hall.

For more information, please contact the Finance Department at 708-246-1800, Ext. 126.

## Continuing Our Commitment

The Village of Western Springs is required by the IEPA to provide an Annual Water Quality Report that covers all required testing and is designed to inform you about the quality of the drinking water. The report includes details about where your water comes from, how it is processed, and what the finished water contains.

Throughout the 2018 calendar year, the Village of

Western Springs complied with all primary EPA water regulations. As in the past, the Village is committed to delivering a quality drinking water.

The Village of Western Springs Board of Trustees is the governing body that oversees the Water Treatment Plant and the Water Distribution System. The Board meets on the second and fourth Mondays of each month. The

Infrastructure Commission, an advisory group of citizens, meets on an as-needed basis to discuss various topics related to the Village's water.

For more information about this report, or for any questions related to your drinking water, please contact Erin Duffy, the Water Treatment Plant Superintendent, at [eduffy@wsprings.com](mailto:eduffy@wsprings.com).

## 2018– 2019 Water System Update

The Village of Western Springs Water Department worked diligently this year to comply with all state and federal EPA regulations. This included the ongoing efforts to complete the Lead and Copper Service Line Survey, which is seventy-five percent completed. The department will be working diligently to complete the survey prior to the next deadline of mid-April 2020. If you have not done so already, please visit [www.wsprings.com/leadandcopper](http://www.wsprings.com/leadandcopper) and complete the survey.

In an effort to become more transparent in the age of information, the Water Department has spent a significant amount of time updating its web page over the past year. The web page now provides monthly water quality averages, lead in drinking water information, two FAQ sections, and flushing suggestions/instructions. If you have not done so already, check it out! Municipal Services, as a whole, has utilized the past several years planning for future water infrastructure

improvement. Some of those plans are now entering the construction stages as Well No. 5 drilling and transmission main begin July 8th and the painting and maintenance at the standpipe located behind Garden Market will begin August 19th. For further updates on these capital improvement projects, please visit the department's webpage as updates will be provided over the next several months.

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# The Water Treatment Process

Beginning in 2013, The Village brought the retro-fitted Low Pressure Reverse Osmosis Water Treatment Plant online. Reverse Osmosis is a water purification technology that utilizes semipermeable membranes to limit the amount of contaminants in the drinking water. Reverse Osmosis can remove many types of ions and molecules from solutions, as well as, bacteria.

All the well water pumped to the Water Treatment Plant is filtered (pre-treatment) with a portion sent to the RO units and a portion blended (the blended portion is approx. 35% for Well 3 and 45 % for Well 4). Once blended, the water is chemically treated and sent to the Village's reservoir as the final product, which is then pumped into the Village's distribution system.

# Lead and Copper

Lead and Copper-3 years	Sample Location	Collection Date	Unit of Measurement	MCLG Drinking	Action Level (AL)	90th Percentile	No. of Sites over AL	USEPA MCL Drinking Violation	Likely source of Contamination
Lead	Distribution	2017	ppb	0	15	2.71	1	No	Homeowners Plumbing
Copper	Distribution	2017	ppm	1.3	1.3	0.32	0	No	Homeowners Plumbing

# Water Quality Test Results\*

Regulated Contaminants	Sample Location	Collection Date(s)	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG Drinking	USEPA MCL Drinking Primary	USEPA MCL Drinking Violation	Likely Source of Contamination
Disinfectant- monthly Chlorine	Distribution	12/31/2018	0.9	0.6-0.9	ppm	MRDLG=4	MRDL=4	No	A water additive to control microbes
DBP's (TTHM)-quarterly Total Trihalomethanes	Distribution	2018	11.45	0-11.45	ppb	No Goal for Total	80	No	By-product of disinfection
DBP's (HAA5)-quarterly Haloacetic acids	Distribution	2018	6.31	0.46-6.31	ppb	No Goal for Total	60	No	By-product of disinfection
Inorganics (IOC)- 3 years									
Barium	Finished- WTP	04/26/2018	0.341	0.341	ppm	2	2	No	Rock/soil erosion
Fluoride	Finished- WTP	04/26/2018	0.47	0.47	ppm	4	4	No	Rock/soil erosion
Iron	Finished- WTP	04/26/2018	ND	ND	ppm	1.0 (IL)		No	Rock/soil erosion
Sodium	Finished- WTP	04/26/2018	40.2	40.2	ppm			No	Rock/soil erosion
Inorganics (IOC)-3 years									
Arsenic	Well #1	10/09/2018	6.73	6.73	ppb	0.0	10	No	Rock/soil erosion
Barium	Well #1	10/09/2018	0.0261	0.0261	ppm	2.0	2.0	No	Rock/soil erosion
Fluoride	Well #1	10/09/2018	0.2	0.2	ppm	4.0	4.0	No	Rock/soil erosion
Iron	Well #1	10/09/2018	2.57	2.57	ppm		1.0 (IL)	No	Rock/soil erosion
Manganese	Well #1	10/09/2018	170	170	ppb	150.0	150(IL)	No	Rock/soil erosion
Sodium	Well #1	10/09/2018	108	108	ppm			No	Rock/soil erosion
Radionuclides-6 years									
Alpha Emitters	Well #1	10/18/2016	5.1	5.1	pCi/L		15.0	No	Rock/soil erosion
Combined Radium (226&228)	Well #1	10/18/2016	1.3	1.3	pCi/L		5.0	No	Rock/soil erosion
Combined Radium (226&228)	Finished- WTP	2018	2.12	2.12	pCi/L	0	5.0	No	Rock/soil erosion
Gross Alpha	Finished- WTP	2018	3.26	3.26	pCi/L	0	15.0	No	Rock/soil erosion

\*Table shows most recent data (2016-2018) from samples collected for the IEPA. Data updated as of 03/01/2019.

**AL**—Action level  
**DBP's**—Disinfection By Products  
**HAA**—Haloacetic Acids  
**IL**—Illinois  
**IOC**—Inorganic Chemicals  
**MCL (Maximum Contaminant Level)** 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.  
**MCLG (Maximum Contaminant Level Goal)** 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.  
**MRDL (Maximum Residual Disinfectant Level)** The highest level of disinfectant allowed in drinking water.  
**MRDLG (Maximum Residual Disinfectant Level Goal)** The level of disinfectant in drinking water below which there is no known or expected risk to health.  
**ND**—Not detected  
**pCi/L (picocuries per liter)** A measure of radioactivity.  
**ppb (parts per billion)** One part substance per billion parts water.

**ppm (parts per million)** One part substance per million parts water.  
**SOC**—Synthetic Organic Chemicals  
**TTHM**—Total Trihalomethanes  
**VOC**—Volatile Organic Chemicals  
**WTP**—Water Treatment Plant  
**90th%**—90th percentile

\*While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause can-

<sup>1</sup>There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium restricted diet, you should consult a physician about this level of sodium in the water.

# Contaminants That Might Be Found in Drinking Water

Possible 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 may be naturally occurring or be the result of oil and gas production.

Drinking water, including bottled

water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, USEPA prescribes regulations, which limit the amount of certain substances in the water provided by the public water system. Federal Drug Administration regulations establish limits for contaminants in bottled water.

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.

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.

More information about contaminants and potential health effects can be obtained by calling the:

**USEPA's Safe Drinking Water Hotline (800-426-4791)** or visiting [www.epa.gov](http://www.epa.gov).

More information is also available on the Village of Western Springs Water Department web page at <http://www.wsprings.com/423/Water-Department>.

# Water Treatment Chemicals

Chemicals added to the water during 2017 include the following:

**Chlorine** (bleach) is added to the water for the purpose of disinfection. A free chlorine residual is used to inactivate pathogenic bacteria that may find their way into the distribution system and to help limit bacterial activity in the water. By taking chlorine residuals, the amount of this disinfecting agent is determined. Finished water leaving

the plant carries a chlorine residual of approximately 1.0 ppm. As the water travels through the distribution system the residual dissipates and at the furthest end of the system it drops to approximately 0.2 ppm.

**Caustic (sodium hydroxide)** is used to raise the final pH of the finished water.

**Corrosion Inhibitor** The corrosion inhibitor utilized by the Village is an

orthophosphate/polyphosphate blend. It is used to lay down a thin, protective film in the water main to control corrosion, as well as, a sequestering agent for low to moderate levels of iron.

**Antiscalant** is used as a low pH conditioner to prevent premature fouling of the membranes.