

Consumer Confidence Report

Annual Drinking Water Quality Report

HARTFORD

IL1190500

Annual Water Quality Report for the period of January 1 to December 31, 2022

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 HARTFORD is Ground Water

For more information regarding this report contact:

Name Michael Daniels  
 Phone 618-251-2694

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

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

Source Water Information

Source Water Name		Type of Water	Report Status	Location
CC03 - ROXANA MASTER METER	FF IL1190900 TP01 AT	GW	_____	At Roxana WTP
WELL 3 (60105)		GW	_____	40 YARDS S OF 0.15 MG ELEV TANK
WELL 4 (60106)		GW	_____	120 YARDS S OF 0.15 MG ELEV TANK

## 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 (618-251-2669). 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: HARTFORD** To determine Hartford's susceptibility to groundwater contamination, the Illinois Rural Water Association recently conducted a well site survey. Based upon this information, there are 13 potential sources of groundwater contamination and an existing groundwater remediation project that could pose a hazard to groundwater utilized by Hartford's community water supply. These potential sources include 4 abandoned below ground fuel storage tank, 1 abandoned salt storage, 1 surface impoundment, 1 retail store, 2 above ground fuel storage tanks, 1 boatyard, 1 above or below ground fuel storage tank, and 2 petroleum/natural gas pipelines. In addition, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated additional sites with on-going remediation which may be of concern. (Note: Based upon information supplied to the Groundwater Section in December 2002, in addition to the known petroleum contaminant plume, there is a documented 1994 release at the River Terminal located northwest of the wells and a 1989 spill along Rand Avenue.) Based upon this information, the Illinois EPA has determined that the Hartford Community Water Supply's source water is susceptible to contamination. As such, the Illinois EPA has provided 5-year recharge area calculations for the wells. The land use within the recharge area of the wells was analyzed as part of this susceptibility determination. This land use includes residential and commercial properties. **Source of Water: ROXANA** To determine Roxana's susceptibility to groundwater contamination, a Well Site Survey, published in 1990 by the Illinois EPA, and a Groundwater Protection Plan were reviewed. Based on the information obtained in these documents, seven potential sources of contamination are present within the recharge area that could pose a hazard to groundwater utilized by the Roxana community water supply wells. According to information provided by the water supply officials, the following sites indicated as potential sources in the site data table have changed their status: FS Growmark (Tanks removed); Barton Contractors (Tanks removed); and Village of Roxana Water Plant (Tanks moved from below ground to above ground). The Illinois EPA considers the community's source water susceptible to VOC and SOC contamination, although quantifiable levels of organic compounds were not detected in the raw or finished water supply. The VOC and SOC susceptibility determination is based on the location of potential sources of contamination, as well as agricultural land use within the recharge areas of the village's wells. However, as a result of monitoring conducted at the wells and entry point to the distribution system, the land use activities, and source water protection initiatives by the city (refer to the following section of this report), the Roxana Community Water Supply's source water is not susceptible to IOC contamination. Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that Roxana's community water supply wells are not vulnerable to viral contamination. This determination is based upon the completed evaluation of the following criteria used in the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; 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 karst, gravel and fractured rock aquifer systems as sensitive and these systems must perform routine source water monitoring". Because the community's wells are open to an unconfined sand and gravel aquifer, the Illinois EPA evaluated the well hydraulics associated with Roxana's well field. The wells have approximately 70 feet of overburden (the wells are approximately 110 feet deep with the last 40 feet open to the aquifer) above the portion of the aquifer contributing a significant quantity of groundwater to the screened interval. This overburden should provide an adequate degree of filtration to prevent the movement of pathogens into the wells.

**2022 Regulated Contaminants Detected**

**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	2022	1.3	1.3	0.11	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

**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 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:**

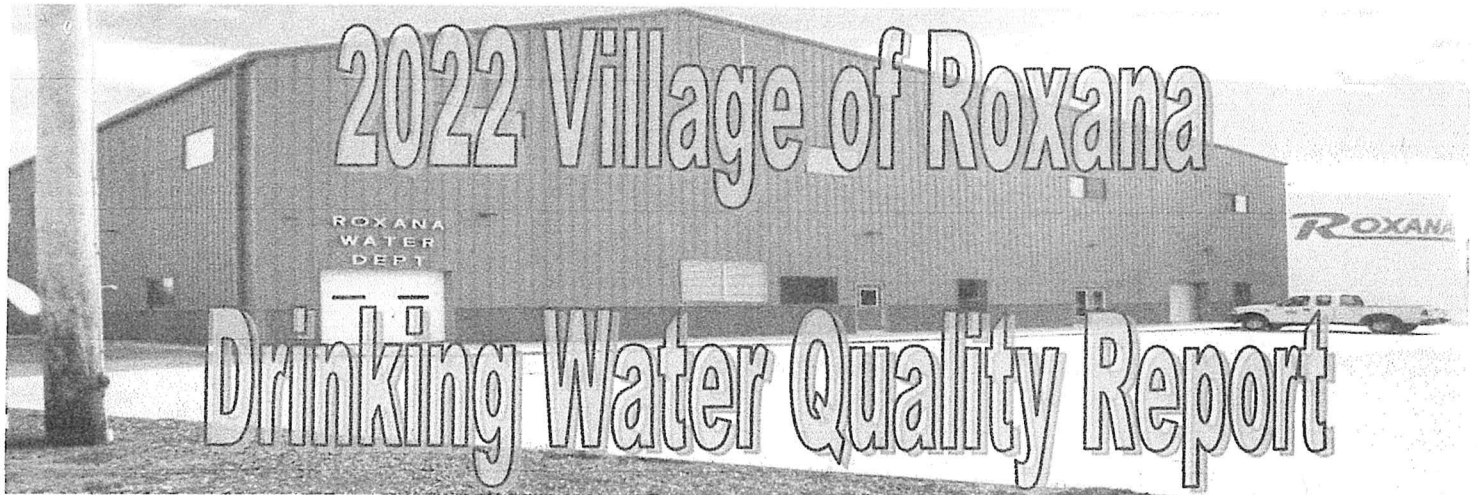
milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

**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	12/31/2022	1.1	0.9 - 1.4	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2022	5	5.27 - 5.27	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	26	25.83 - 25.83	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
Barium	01/27/2020	0.045	0.045 - 0.045	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	01/27/2020	0.658	0.658 - 0.658	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	01/27/2020	0.01	0.01 - 0.01		1.0	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	01/27/2020	2.9	2.9 - 2.9	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]	2022	0.07	0.07 - 0.07	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	01/27/2020	27	27 - 27			ppm	N	Erosion from naturally occurring deposits. Used in water softener regeneration.



## 2023 Distribution

## Consumer Confidence Report

### Village of Roxana City Hall

310 North Central  
Roxana, IL 62084  
Ph. 254-4709  
Ph. 254-0345

### Mayor:

Village President  
Marty Reynolds

### Trustees:

Jim Groppe  
Robert Kelly  
Jack LaTemp  
Dale Raymond  
Jim Smith  
Chris White

### Public Safety

Police: 254-1945  
Fire: 254-8293

### Public Works

254-0980  
Street: 254-1951  
Water: 254-5513

### Park & Recreation

Park: 254-7485  
Pool: 254-8914  
Gym: 254-6919

### Library

254-6713

### Why do we provide this Report?

This report is mandated by the USEPA and it will summarize the quality of water we provided to you the previous year (2022). It will include details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

As in past years, your tap water has met or exceeded all United States Environmental Protection Agency and State of Illinois drinking water health standards. The Roxana Water Department strives to protect our groundwater supply and provide a safe, high quality, water to our consumers. *Again, we are delighted & privileged to report that the department did not have any violations of a regulated contaminant level, nor did we fail to meet any other water quality standard during the calendar year of 2022.*

### Local Contact Information

If you have any questions or concerns about this report, or about our water system, you may contact Dustin McCann  
Water Department Supt. at 618-254-5513.

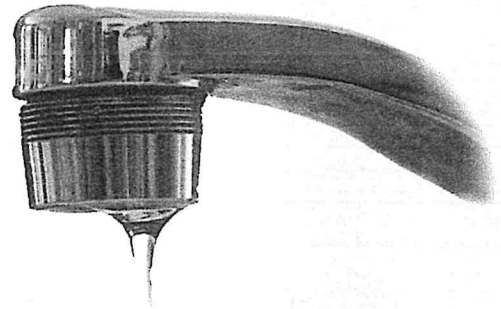
Inquiries may also be sent to:  
Roxana Water Department  
310 North Central Avenue  
Roxana, IL 62084

If you prefer, you may e-mail us at  
[Roxanawater@roxana-il.org](mailto:Roxanawater@roxana-il.org).

This report is available in printed form at Village Hall and on the Village of Roxana website at: [www.roxana-il.org](http://www.roxana-il.org)

This report is also available via this direct link:  
<http://www.ilrwa.org/CCR/Roxana.pdf>

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 regular Village Council meetings which are held the 1<sup>st</sup> and 3<sup>rd</sup> Monday of each month at



Village Hall (310 North Central Ave.) The meetings begin at 6:30 P.M. and are open to the public.

The Illinois Environmental Protection Agency has provided additional information about our water supply which is included in this report as the final 2 pages, which contain the **2022 Regulated Contaminants Detected** data tables report. This report contains additional details about the water we provide to our consumers.

**Roxana Water System Info:**

- ❖ Water Mains: approx. 24 miles
- ❖ Water Produced, Calendar Yr. 2022: 299,969,000 gal.
- ❖ Peak Month: 27,170,000 gal.
- ❖ Peak Day: 1,414,000 gal.
- ❖ Average Daily Demand: 821,832 gal.
- ❖ Number of Water Meters: 766
- ❖ Number of Fire Hydrants: 93
- ❖ Ground Storage at Treatment Plant: 1,250,000 gal.
- ❖ Ground Storage at Booster Pump Sta.: 100,000 gal.
- ❖ Elevated Storage: 300,000 gal.
- ❖ Service Area Includes: Village of Roxana, Village of South Roxana, ConocoPhillips Refinery, Messer Gases Facility- Hartford, Lewis & Clark Interpretive Center - Hartford

What is our Water Analyzed for?

During the calendar year 2022, analysis of our finished water indicated that the water we provided to you continues to be well below levels of concern for any regulated contaminants.

Following is the required monitoring schedule from the IEPA that our Well water & Distribution water is analyzed for on a regular periodic basis.

\* Each Month: *Bacteria (Coliform, E. Coli) and Fluoride*

\* Each Year: *Nitrate*

\* Every 3 Yrs: *Lead & Copper, Nitrite, TTHM's (Total Trihalomethanes*

*-Disinfection ByProducts), and IOC's (Inorganic Contaminants)*

\* Every 6 Yrs: *Radiological Contaminants, VOC's (Volatile Organic Contaminants)*

\* Every 9 Yrs: *Cyanide and SOC's (Synthetic Organic Contaminants)*

Where does our Water come from?

The water we provide to you is pumped from wells located near the Village of Roxana. Each well is over one hundred feet deep and is drilled and cased into the American Bottoms Aquifer. This aquifer encompasses a large area and is a prolific source of water for local industry and several surrounding communities. The naturally occurring mineral deposits in the aquifer formation require that we provide a high degree of water treatment to the groundwater.

Water you receive has been processed through the treatment methods of aeration, oxidation, coagulation, stabilization, and filtration to ensure that all mineral levels are below primary and secondary water quality standards set forth by the Illinois Environmental Protection Agency. Fluoride is added to help reduce tooth decay. Chlorine is added in the proper amounts to disinfect the groundwater and to

protect it from possible harmful bacteria as it travels through the distribution system to your home or business.

How do we Protect the Source of our Water?

The Roxana Water Department has developed and implemented a Groundwater Protection Plan which has been approved and adopted by the Illinois Environmental Protection Agency. It serves as a guideline to protect our groundwater recharge zone and aquifer from contamination.

The plan includes the **Source Water Assessment** report with detailed hydro-geological mapping of our groundwater recharge zone (*areas of the surrounding property where rainfall percolates into the soil and becomes groundwater that we use*).

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 website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

This report identifies potential sources of pollution within our groundwater recharge zone and provides a "vulnerability assessment" of the recharge area that allows us to work with surrounding property owners and land users to mitigate the potential of groundwater pollution. In light of this, we are involved with local agricultural land users to encourage that "best management practices" (BMPs) are followed in all their farming activities. Local business owners have been contacted and informed that they are located within a groundwater protection zone to encourage their respect of presently enacted EPA regulations.

When water flows backward through the water supply system, it is called backsiphonage or backflow. For example, if the pressure in a water main drops while a hose connected to Roxana's Water System is submerged in polluted or contaminated water, that water (and whatever is in it) could be sucked into your drinking water supply! To protect against backflow, follow these tips:

- ✓ Never submerge hoses in buckets, pools, tubs, or sinks.
- ✓ Always keep the end of the hose clear of contaminants.
- ✓ Never use hose-end spray attachments without a backflow prevention device.
- ✓ Install backflow prevention devices such as hose-bib vacuum breakers on all threaded faucets in your home.
- ✓ Install an approved backflow prevention assembly on your automatic irrigation system.
- ✓ Be sure to have the backflow prevention assembly on your lawn irrigation system tested once every 5 years, and after installation or whenever it is moved.

### Important Health Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the 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 (800) 426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. "Immuno-compromised" persons (such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or 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 (Centers for Disease Control) 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 (800) 426-4791.



other

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 <http://www.epa.gov/safewater/lead>.

### Substances Expected to be in 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 can dissolve naturally occurring minerals and, in some cases, radioactive materials, 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 may be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, EPA prescribes regulations which limit the number of certain contaminants in water provided by public water systems. FDA (Food & Drug Admin) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

In 2020, our PWS was sampled as part of the State of Illinois PFAS Statewide Investigation. Eighteen Pfas compounds were sampled, and none were detected in our finished drinking water. For more information about PFAS health advisories

<http://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx>

***This is our Consumer Confidence Water Quality Report for the water provided to you in 2022.*** (please read further for more informational items concerning the water provided to you). ***If you have any questions, or would like additional information, please do not hesitate to contact the Roxana Water Department at your convenience.*** Dustin McCann  
Roxana Water Department Superintendent  
E-mail: [Roxanawater@roxana-il.org](mailto:Roxanawater@roxana-il.org)



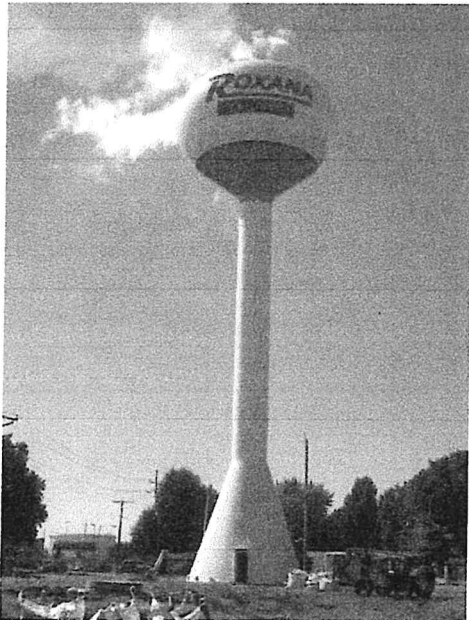
**IMPORTANT Information!!** Several years back the IEPA started requiring a “***Cross-Connection Control Survey***” of every Drinking Water System including the Village of Roxana Water Dept’s Distribution System. This survey needs to be completed for each water service connection every 3 years as mandated by the Illinois Environmental Protection Agency. When it is time to do this survey again in the future, we will distribute the survey forms to each water service connection from our distribution system.



Please help us by completing and returning the “***Cross-Connection Control Survey***” form as soon as possible to the Roxana Water Department. To be in compliance with the IEPA, we need to have 100% participation from every customer.

Any questions: please call the Water Dept. @ 254-5513 (E-mail: [Roxanawater@roxana-il.org](mailto:Roxanawater@roxana-il.org) )

**More IMPORTANT Information!!** The State of Illinois (General Assembly) has enacted an “Act concerning safety” as part of Public Act 102-0613. In Section 30, the Environmental Protection Act is amended. What this means is that it is now required by the State of Illinois that the “owners/operators” of Community Water Systems must: (1) create and maintain a comprehensive lead service line inventory; and (2) provide notice to occupants of potentially affected residences of construction or repair work on water mains, lead service lines, or water meters.



Thus, the Roxana Water Department has now developed and will maintain a Water Distribution Service Line Material Inventory Assessment list and submit this to the Illinois Environmental Protection Agency on an annual basis which started April 15, 2018.

You can help us out by informing us of the type of “material” that is used for the “water” lines inside your household. (This will be another question we will have on our “Cross-connection Control” Survey mentioned above.)

The piping material choices that the IEPA has given us for reporting to them are the following Material types:

Lead - Copper (with lead solder) - Copper (no lead solder) - Galvanized - Plastic - Unknown

You may have more than one “material type” as part of your water service line/household plumbing: if so, list each type – such as: galvanized/copper or copper/plastic, etc.

If you have any questions now or at the time of filling out the Survey form, please call the Roxana Water Department at 618-254-5513 or email: [Roxanawater@roxana-il.org](mailto:Roxanawater@roxana-il.org) .

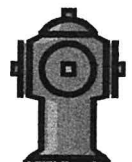
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### **Water Main Flushing Notice:**



The Roxana Water Department will again be flushing water mains this year.  
(We typically do this every Fall)

We are planning to do this on the following dates:  
**Tuesday – Sept 26, 2023 & Wednesday - Sept 27, 2023.**



We will start after 10:00pm each evening.

***Check your water on the following mornings for any discoloration or before you do laundry***

Source Water Information

Source Water Name	Type of Water	Report Status	Location
WELL 10-TOPO MAP 221D-2800 FT E OF	GW	A	_____
WELL 11 (01911)	GW	A	_____
WELL 8-TOPO MAP 221D-2300 FT E OF	GW	A	_____
WELL 9-TOPO MAP 221D-2600 FT E OF	GW	A	_____

Source Water Assessment

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Due to favorable monitoring history, aquifer characteristics, and inventory of potential sources of contamination, our water supply was issued a vulnerability waiver renewal. Monitoring is only conducted for SOC once every 9 years and VOC once every 6 years.

2022 Regulated Contaminants Detected

Lead and Copper

Definitions:

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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	2022	1.3	1.3	0.14	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2022	0	15	1.9	0	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 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	12/31/2022	0.9	0.68 - 1.1	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2022	9	9 - 9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2022	27	26.5 - 26.5	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
Barium	05/18/2021	0.089	0.089 - 0.089	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	05/18/2021	0.654	0.654 - 0.654	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Sodium	05/18/2021	12	12 - 12			ppm	N	Erosion from naturally occurring deposits. Used in water softener regeneration.