

# Annual Drinking Water Quality Report for the City of Newton – IL0790100

Annual Water Quality Report for the period of January 1 to December 31, 2021.

This year, as in years past, your tap water met all USEPA and state drinking water health standards. Our system vigilantly safeguards its groundwater supply, and we are able to report that the department had no violations of a contaminant level or of any other water quality standard in the previous year. This report summarizes the quality of water that we provided last year, including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with this information because informed customers are our best allies. 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.

If you have any questions about this report or concerning your water system, please contact Tyler Weber at 618-783-8451.

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

Newton uses groundwater provided by five (5) wells drilled into the Embarras River Alluvial Aquifer. An aquifer is a geological formation that contains water. All the wells are located just north of the city in a low laying river bottom. Water is pumped from any combination of three (3) wells at any given time, blended together, and then treated. Your home normally receives a mixture of all five (5) wells.

## 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 on the first and third Tuesday of each month at 6 P.M. 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 618-783-8451. 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:

### NEWTON

The Illinois EPA considers the source water of Newton's wells to be susceptible to IOC and SOC contamination, but does not consider the wells susceptible to VOC contamination. This determination was made primarily based on the identification of potential sources and routes of contamination, land-use activities around the wells, available hydrogeologic data, and monitoring results. Materials reviewed included the Well Site Survey Report, published in 1990, a Phase II Wellhead Protection Area (WHPA) Delineation, and additional field surveys. Other material reviewed includes the City of Newton's Source Water Protection Plan, published in 2013, in cooperation with the Illinois Rural Water Association. During the surveys of the source water protection area, no potential sources, routes, or possible problem sites were identified within 2,000 feet of the 400-foot minimum setback zones, the 1,000-foot Maximum Setback zones, or the Phase II WHPAs. Part of the land within the Phase II WHPA is utilized for agricultural purposes which increases the susceptibility to groundwater contamination of SOCs from pesticides and herbicides and IOCs such as nitrate used for fertilizing. Sampling performed to assess for pathogenic contamination (e.g., virus, total coliform, e-coli) has also demonstrated that the source water is not susceptible to these types of contaminants.

The City of Newton has implemented a source water protection program which includes source water protection strategies, and contingency planning. This resulted in the community water supply receiving a special exemption permit from the IEPA which allows a reduction in Cyanide, SOC and VOC monitoring. This vulnerability waiver is conditional upon cyanide, volatile and/or synthetic organic monitoring results and required confirmation results.

In 2021, 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, please go to <http://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx>

### **Source of Drinking Water**

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.

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).

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. Possible contaminants consist of:

- 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.

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.

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. The City of Newton Water Department is responsible for providing high quality drinking water but 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>.

## Source Water Information

Source Water Names		Type of Water	Report Status	Location
WELL 5 (00326)	SHALLOW IN EMBARRASS	GW	ACTIVE	Located 2141 feet Northwest of the intersection of N. 1030 <sup>th</sup> St. and IL 130
WELL 6 (00657)	IN EMBARRASS	GW	ACTIVE	Located 958 feet north-northwest of the intersection of N. 1030 <sup>th</sup> St. and IL 130
WELL 7 (01058)	IN EMBARRASS	GW	ACTIVE	Located 1580 feet north-northwest of the intersection of N. 1030 <sup>th</sup> St. and IL 130
WELL 8 (01868)	IN EMBARRASS	GW	ACTIVE	Located 1783 feet Northwest of the intersection of N. 1030 <sup>th</sup> St. and IL 130
WELL 9 (01869)	IN EMBARRASS	GW	ACTIVE	Located 1901 feet West of the intersection of N. 1030 <sup>th</sup> St. and IL 130

## 2021 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)	90 <sup>th</sup> Percentile	# Sites over AL	Units	Violation	Likely Source of Contamination
Copper	06/24/2020	1.3	1.3	0.144	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 the 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 bacterial 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 bacterial 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 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 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 once ounce in 7,350 gallons of water

### **Treatment Technique or TT:**

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

**Regulated Contaminates**

<b>Disinfectants and Disinfection By-Products</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
Chlorine	12/31/2021	1.7	1.5 -1.8	MRDLG = 4	MRDL = 4	Ppm	N	Water additive used to control microbes
Halo acetic Acids (HAA5)	08/3/2021	13	13 – 13	No Goal for the Total	60	Ppb	N	By-product of drinking water disinfection
Total Trihalomethanes	08/31/2021	31.7	31.7 – 31.7	No Goal for the Total	80	Ppb	N	By-product of drinking water disinfection
<b>Inorganic Compounds</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
Arsenic	07/12/2021	0.61	0.61 – 0.61	0	10	Ppb	N	Erosion of natural deposits; Runoff from orchards; runoff from glass and electronics production wastes
Barium	07/12/2021	0.0435	0.0435 – 0.0435	2	2	Ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	07/12/2021	0.44	0.44 – 0.44	4.0	4.0	Ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	11/01/2021	1.51	1.5 – 1.51	10	10	Ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage, Erosion of natural deposits
Sodium	07/12/2021	13.1	13.1 – 13.1			Ppm	N	Erosion from naturally occurring deposits. Used in water softener regeneration
<b>Radioactive Contaminates</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
Combined Radium 226/228	01/22/2018	0.5	0.5 – 0.5	0	5	pCi/L	N	Erosion of natural deposits