2022 Annual Drinking Water Quality Report

For

Johnson Memorial Hospital

Stafford, Connecticut

PWSID CT1340032

This report is a snapshot of drinking water quality that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards. We are committed to providing you with information because informed customers are our best allies.

I. PUBLIC WATER SYSTEM INFORMATION

Address: 201 CHESTNUT HILL ROAD

Contact Person: Andy Petitti

Telephone #: **203-264-8183** Fax #: **203-262-6727**

Water System Improvements

Our water system is routinely inspected by the Connecticut Department of Public Health - Drinking Water Section. CTDPH inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. To ensure that we provide the highest quality of water available, your water system is operated by a Connecticut certified operator who oversees the routine operations of our system. The water system is being inspected on a weekly basis to ensure proper operation and maintenance of the system.

Opportunities for Public Participation

Your water system is currently operated by Eastern Water Solutions. Should you have any questions or comments regarding this report or general questions regarding the operation of your water system, please feel free to contact us at 203-264-8183.

2. YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?

Johnson Memorial Hospital is a community public water system located in Stafford. The system serves approximately 250 people per day. Johnson Memorial Hospital receives its Drinking water from four bedrock wells (Well #5, #6, #7, and #8.) There is a below grade concrete ~313,000 gallon atmospheric storage tank. There is a chlorination system and uranium treatment vessels. The wells are located in the wooded area behind the parking lot.

Is My Water Treated?

Johnson Memorial Hospital is treated for uranium and has a chlorination system.

How Are These Sources Protected?

The Connecticut Department of Public Health Drinking Water Section conducted a Source Water Protection and Assessment to provide baseline data about the quality of the well head area. This is important because it identifies the origins of contaminants within the wellhead protection area and indicates the susceptibility of our water system to such contaminants. CTDPH has prepared source water assessments for all public water systems in Connecticut, as required by the 1996 Safe Drinking Water Act Amendments. The CTDPH in conjunction with Public water supply owners assesses the susceptibility of public water supplies to potential sources of contamination. Recommendations are made to better protect and improve the source water area. You may obtain a copy of our SWAP report by either contacting the Operations Company at 1-800-624-2327 or by visiting the CTDPH web site at https://www.dir.ct.gov/dph/Water/SWAP/Community/CT1340032.pdf

Our SWAP was issued a ranking for susceptibility to contamination of **moderate-high.** The protected area is inspected on a monthly basis to ensure that no change of land use, or new threats are introduced that could possibly threaten our water supply.

Additional source water assessment Information can be found at the Environmental Protection Agency's website: www.epa.gov/safewater/protect/swap.html.

3. SUBSTANCES FOUND IN TAP WATER

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 stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.

Pesticides and herbicides -which may come from a variety of sources such as agriculture, urban stormwater 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 stormwater 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, the Connecticut Department of Public Health (DPH) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Connecticut Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All 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).

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 some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

4. WATER QUALITY TESTING RESULTS

What Does This Data Represent?

The water quality information presented in the table(s) is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table(s).

Lead and Copper

	Date(s) Collected	90TH percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Source of Contamination
Lead (ppb)	9/7/21 9/22/21	0.0017	0.015	0	5	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	9/7/21 9/22/21	0.327	1.3	1.3	5	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

"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. Johnson Memorial Hospital 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."

Coliform Bacteria

Coliform are bacteria that are naturally present in the environment and are not harmful themselves; however, their presence can be an indicator that other potentially harmful bacteria may be present. Sampling for coliform bacteria is performed on a monthly basis.

	Highest # Positive in a month	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination
Total Coliform	0	1	0	N	Naturally present in the environment
Fecal Coliform or *E.coli*	0	*	0	N	Human and animal fecal waste

- Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Inorganic Contaminants							
Barium (mg/L)	1/29/19	0.002	N/A	2		N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (ppm)	1/10/22	0.08	N/A	10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Sodium (mg/L)	1/29/19	12.8	N/A	250		N	Natural deposits, road salt, fertilizers, sewage, water softener discharge, salt water intrusion
Radioactive Contaminants							
Gross Alpha (pCi/l) (minus uranium)	1/10/22 4/4/22 7/5/22	17.4	ND – 17.4	15	0	N	Erosion of natural deposits
Radium 226 & 228 (pCi/L) (combined values)	1/10/22 4/4/22 7/5/22	1.32	ND – 1.32	5	0	N	Erosion of natural deposits
Uranium (mg/L)	1/10/22 4/4/22 7/5/22	0.0249	ND – 0.0249	0	30	N	Erosion of natural deposits
Volatile Organic Contaminants							
Bromochloroacetic Acid (ug/L)	9/19/22	ND	N/A	N/A	N/A	N/A	Chlorine disinfection byproduct
Bromodichloromethane (ug/L)	9/19/22	ND	N/A	N/A	N/A	N/A	Chlorine disinfection byproduct
Chloroform (ug/L)	9/19/22	2.3	N/A	N/A	N/A	N/A	Chlorine disinfection byproduct

Dichloroacetic Acid (ug/L)	9/19/22	1.3	N/A	N/A	N/A	N/A	Chlorine disinfection byproduct
Dibromochloromethane (ug/L)	9/19/22	1.9	N/A	N/A	N/A	N/A	Chlorine disinfection byproduct

Total Haloacetic Acids ug/L)	9/19/22	1.3	N/A	60	N/A	N/A	Chlorine disinfection byproduct
Total Trihalomethanes (ug/L)	9/19/22	6.80	N/A	80	N/A	N/A	Chlorine disinfection byproduct

Synthetic Organic Contaminants

Samples Collected on 1/10/22 showed no detects for all parameters analyzed.

Unregulated contaminants are those for which there are no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water and whether future regulation is warranted.

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	MCLG	Possible Source
Inorganic Contaminants						
Nickel (ppm)	1/29/19	<0.001	N/A	---	0.1	Discharge from industrial processes
Sulfate (ppm)	1/29/19	8.5	N/A	250		Natural sources
Radiological Contaminants						
Radon (pCi/L)	N/A	N/A	N/A	---	10,000	Natural sources
Secondary Contaminants						
Chloride (mg/L)	3/19/19	73.1	N/A	250	----	Runoff from road de-icing, use of inorganic fertilizers, landfill leachates, septic tank effluents, animal feeds, industrial effluents, irrigation drainage, and seawater intrusion in coastal areas
Iron (ppb)	N/A	N/A	N/A	300	---	Naturally occurring, corrosion of cast iron pipes
Manganese* (ppb)	N/A	N/A	N/A	50	Health Advisory of 300 ppb	Erosion of natural deposits
Zinc (ppm)	N/A	N/A	N/A	5	---	Erosion of natural deposits, leaching from plumbing materials

- US EPA has established a lifetime health advisory (HA) value of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1000 ppb for acute exposure.

5. COMPLIANCE WITH DRINKING WATER REGS

Does My Drinking Water Meet Current Health Standards?

We are proud to inform you that the drinking water at Johnson Memorial Hospital currently meets health standards.

July Chlorine Monitoring Violation

For the monitoring period of July 1 2022 – July 31 2022, Johnson Memorial Hospital did not monitor for chlorine as required by the CT DPH. This oversight resulted in a monitoring violation issued to the system. Moving forward, monitoring schedules and requirements will be reviewed more carefully to prevent future issues like this one from occurring. This violation is in no way indicative of any water quality concerns at Johnson Memorial Hospital.

6. EDUCATIONAL INFORMATON

Do I Need To Be Concerned About Certain Contaminants Detected In My Water?

No. Although some contaminants were detected, all were below the action level.

7. IMPORTANT DEFINITIONS

Maximum Contaminant Level (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 (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.

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

90th Percentile – Out of every 10 homes sampled, 9 were at or below this level.

ppm = parts per million, or milligrams per liter (mg/l)
ppb = parts per billion, or micrograms per liter (ug/l)
ppt = parts per trillion, or nanograms per liter
pCi/l = picocuries per liter (a measure of radioactivity)
NTU = Nephelometric Turbidity Units
ND = Not Detected
N/A = Not Applicable
mrem/year = millimrems per year (a measure of radiation absorbed by the body)

Secondary Maximum Contaminant Level (SMCL) – These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

8. ADDITIONAL INFORMATION

Cross-Connection Control and Backflow Prevention

Johnson Memorial Hospital makes every effort to ensure that the water delivered to your home or business is clean, safe, and free of contamination. Our staff works very hard to protect the quality of the water delivered to our customers from the time the water is extracted from underground throughout the entire treatment and distribution system. But what happens when the water reaches your home or business? There is still a need to protect the water quality from contamination caused by a cross-connection.

What is a cross-connection?

A cross-connection occurs whenever the drinking water supply is or could be in contact with potential sources of pollution or contamination. Cross-connections exist in piping arrangements or equipment that allow the drinking water to come in contact with non-potable liquids, solids, or gases (hazardous to humans) in event of a backflow.

What is backflow?

Backflow is the undesired reverse of the water flow in the drinking water distribution lines. This backward flow of water can occur when the pressure created by equipment or a system, such as a boiler or air-conditioning, is higher than the water pressure inside the water distribution line (backpressure), or when the pressure in the distribution line drops due to routine occurrences such as water main breaks or heavy water demand causing the water to flow backward inside the water distribution system (backsiphonage). Backflow is a problem that many water consumers are unaware of and every water customer has a responsibility to help prevent them.

What you can do to help prevent a cross-connection

A cross connection is defined as any direct connection between the public water supply and a non-potable water source, contaminant, or source of pollution. Cross connections can exist both in residential homes and in non-residential facilities.

Without the proper protection something as simple as a garden hose has the potential to contaminate or pollute the drinking water lines in your house. In fact, over half of the country's cross-connection incidents involve unprotected garden hoses. There are very simple steps that you, as a drinking water user, can take to prevent such hazards:

- **Never** submerge a hose in soapy water buckets, pet watering containers, pool, tubs, sinks, drains, or chemicals.
- **Never** attached a hose to a garden sprayer without the proper backflow preventer.
- Buy and install a hose bibb vacuum breaker on every threaded water fixture. The installation can be as easy as attaching a garden hose to a spigot. This inexpensive device is available at most hardware stores and home-improvement centers.
- **Identify** and be aware of potential cross-connections to your water line.
- Buy appliances and equipment with a backflow preventer.
- Buy and install backflow prevention devices or assemblies for all high and moderate hazard connections.
- Call Mark Walberger at 617-555-2345 for more information about cross connections or for a free hose bibb vacuum breaker.

Water Conservation Tips

- The average American uses 140-170 gallons of water per day.
- One flush of the toilet uses 6.5 gallons of water.
- Take short showers instead of baths. A full bathtub requires about 37 gallons of water.
- An average family of four uses 881 gallons of water per week to flush the toilet.
- You use about 5 gallons of water if you leave the water running while brushing your teeth.
- An automatic dishwasher uses 9 to 12 gallons of water while hand washing dishes can use up to 20 gallons.
- You can refill an 8-oz glass of water approximately 15,000 times for the same cost as a six-pack of soda.
- A leaky faucet can waste 100 gallons of water a day.

Why is drinking enough water so important

According to a University of Washington study, 75% of Americans are chronically dehydrated. For 37% of Americans, the thirst mechanism is so weak that it is often mistaken for hunger. Even mild dehydration will slow down one's metabolism as much as 3%. Here are some facts from this study:

- One glass of water shuts down midnight hunger pangs for almost 100% of the dieters studied.
- The lack of water is the number one trigger for daytime fatigue.
- Preliminary research indicates that 8-10 glasses of water per day could significantly ease back and joint pain for up to 80% of sufferers.
- A mere 2% drop in body water can trigger fuzzy short-term memory, trouble with basic math, and difficulty focusing on the computer screen or on a printed page.