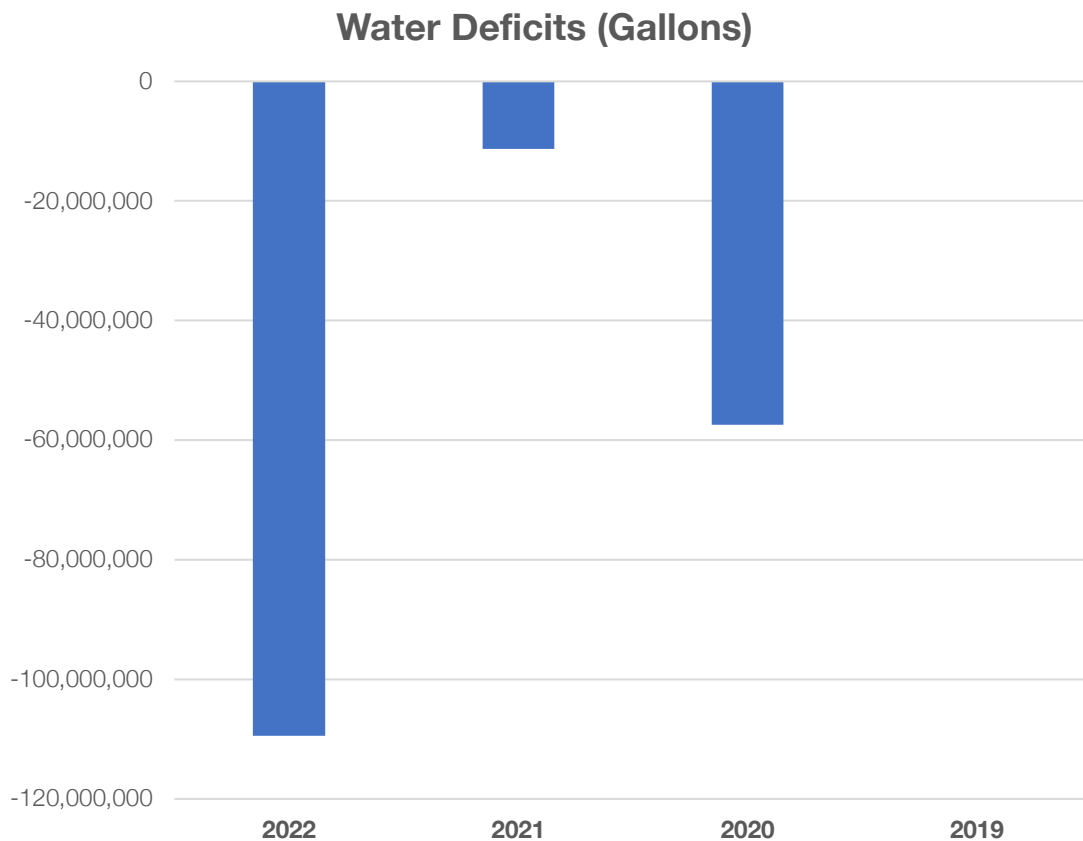


Date: Friday, February 16, 2024
To: Millbury Board of Appeals
From: Steve Stearns
Reference: **Millbury Water Deficiencies | Rice Pond Village**

As you know, Aquarion Water Company supplies Millbury’s water and regularly publishes annual reports detailing water quality and other crucial information. These reports highlight that Millbury depends on the City of Worcester and the Town of Grafton to supplement our existing water supply, indicating our lack of self-sufficiency in this regard. This raises the question: if we currently lack the water resources needed to support our existing residents and businesses, for domestic use and firefighting, how can we contemplate adding, if approved, what would be the largest development in Millbury? No other single property contains as many dwelling units as what is proposed for Rice Pond Village.

Attached are excerpts of Aquarion Water Company’s annual reports from 2019-2022 (the latest published report), which highlight the following water deficits:





AQUARION
Water Company

Stewards of the Environment™

— **2022** —
WATER
QUALITY
REPORT

Water: it's too precious to waste

IN THIS REPORT

3-4 Water Quality Table

5 Monitoring Unregulated Contaminants

6 Your Health Is Our Priority

7 Lead in Drinking Water: The Facts

8 Water Protection and Conservation

MILLBURY SYSTEM

PWS ID#: MA2186000

Este informe contiene información importante sobre su agua potable. Pida a alguien que lo traduzca para usted, o hable con alguien que lo entienda.

YOUR HEALTH IS OUR PRIORITY

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. To ensure tap water is safe to drink, the EPA and MassDEP prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food & Drug Administration (FDA) and Massachusetts Department of Public Health Regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline, [800-426-4791](tel:800-426-4791).

Where Does Your Water Come From?

The water provided to our Millbury customers comes from three groundwater supply wells (the Oak Pond Well was not in service in 2022). The water from each well is treated and then distributed to our customers through an extensive network of more than 52 miles of piping and a 1.2- million-gallon water storage tank. Our water supply system is within the Blackstone River Watershed and serves approximately 9,450 people. The average amount of

water from our sources delivered to the Millbury system in 2022 was 1.61 million gallons per day.

The City of Worcester supplemented our own sources by providing 109.4 million gallons of water to our system in 2022, accounting for 18.4% of the total use. The distribution system also is interconnected to the water system in Grafton for emergencies or periods of high-water use.

How Is Your Water Treated?

All water from the four wells is filtered naturally underground and then receives chemical treatment for disinfection and pH adjustment. Water from the Millbury Avenue Well receives additional treatment, including filtration at the Millbury Avenue Water Treatment Facility. Water from the two Jacques wells receives supplemental treatment using ion exchange to remove perchlorate from the water.

Cryptosporidium

The EPA requires public water systems that use surface water sources to monitor for Cryptosporidium. This is a microbial pathogen found in lakes and rivers throughout the U.S. that can cause gastrointestinal illness if consumed. Aquarion continues to monitor its surface water sources and has not detected Cryptosporidium.

Disinfection By-Products

Disinfection by-products (DBPs) are chemicals formed during the disinfection process, when naturally occurring organic matter reacts with chlorine, which is added to water to eliminate bacteria and other microorganisms. Currently, there are limits on two types of DBPs, known as Total Trihalomethanes (TTHM) and Total Haloacetic Acids (THAA). Some people who drink water containing DBPs that exceed these limits over many years may experience problems with their livers, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

The state has implemented DBP regulations that change how compliance with the standards is determined. The intent is to increase protection against the potential health risks associated with DBPs. Aquarion Water Company continues to evaluate its systems to ensure compliance with DBP regulations.

Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level* over a relatively short period of time could experience gastrointestinal distress. Some people who drink water containing copper in

excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. Major sources of copper in drinking water include corrosion of household plumbing systems and erosion of natural deposits.

*The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

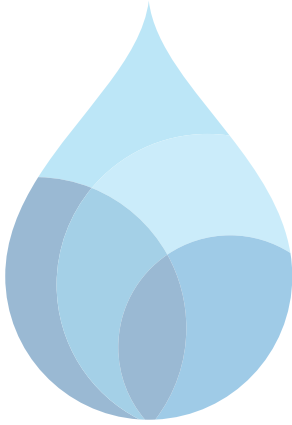
Immuno-compromised persons

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. The EPA and the Center for Disease Control and Prevention (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](tel:800-426-4791).



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2021 WATER QUALITY REPORT

Water: it's too precious to waste

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 the 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). Here is some additional information of interest about Aquarion's drinking water.

Where does your water come from?

The water provided to our Millbury customers comes from three groundwater supply wells. (The Oak Pond Well was not in service in 2021). The water from each well is treated and then distributed to our customers through an extensive network of more than 52 miles of piping and a 1.2- million-gallon water storage tank. Our water supply system is located within the Blackstone River Watershed and serves approximately 9,500 people. The average amount of water from our sources delivered to the Millbury system in 2021 was 1.61 million gallons per day.

The City of Worcester supplemented our own sources by providing 11.3 million gallons of water to our system in 2021, accounting for 1.9% of the total use. The distribution system is also interconnected to the water system in Grafton for emergencies or periods of high water use.

How is your water treated?

All water from the three wells is filtered naturally underground and then receives chemical treatment for disinfection and pH adjustment. The water from the Millbury Avenue well receives additional treatment including filtration at the Millbury Avenue Water Treatment Facility. Water from the two Jacques wells receives supplemental treatment using ion exchange to remove perchlorate from the water.

Cryptosporidium

The EPA requires public water systems that use surface water sources to monitor for Cryptosporidium. This is a microbial pathogen found in lakes and rivers throughout the U.S. that can cause gastrointestinal illness if consumed. Aquarion continues to monitor its surface water sources and has not detected Cryptosporidium.

Disinfection by-products

Disinfection by-products (DBPs) are chemicals formed during the disinfection process, when naturally occurring organic matter reacts with chlorine, which is added to water to eliminate bacteria and other microorganisms. Currently there are limits on two types of DBPs known as Total Trihalomethanes (TTHM) and Total Haloacetic Acids (THAA). Some people who drink water containing DBPs that exceed these limits over many years may experience problems with their livers, kidneys, or central

nervous systems, and may have an increased risk of getting cancer. The state has implemented new DBP regulations that change how compliance with the standards is determined. The intent is to increase protection against the potential health risks associated with DBPs. Aquarion Water Company continues to evaluate its systems to ensure compliance with DBP regulations.

Source Water Assessment Report

The Massachusetts DEP's Source Water Assessment Program (SWAP), which has evaluated each water source to identify potential contamination, states that the water sources that supply drinking water to the Millbury System have a high susceptibility to potential contamination. The report is available on the DEP website. Go to www.mass.gov and enter source water assessment report in the search bar.

System Capacity Report

The MassDEP Drinking Water Program (DWP) conducted a survey of all community and non-transient non-community public water systems to help assess current challenges in maintaining adequate technical, financial, and managerial capacity. A public water system's capacity is determined by its ability to plan for, achieve, and maintain compliance with applicable federal and state drinking water standards now and in the foreseeable future (6 years). MassDEP/DWP evaluates



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2020 Water Quality Report

Millbury System

Water: It's Too Precious
To Waste.



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). Here is some additional information of interest about Aquarion's drinking water.

Where does your water come from?

The water provided to our Millbury customers comes from three groundwater supply wells. The Oak Pond well was not in service in 2020. The water from each well is treated and then distributed to our customers through an extensive network of over 52 miles of piping and a 1.2-million-gallon water storage tank. Our water supply system is located within the Blackstone River Watershed and serves approximately 8,800 people. The average amount of water from our sources delivered to the Millbury system in 2020 was 1.61 million gallons per day.

The City of Worcester supplemented our own sources by providing 57.4 million gallons of water to our system in 2020, accounting for 9.7% of the total use. The distribution system is also interconnected to the water system in Grafton for emergencies or periods of high water use.

How is your water treated?

All water from the four wells is filtered naturally underground and then receives chemical treatment for disinfection and pH adjustment. The water from the Millbury Avenue well receives additional treatment including filtration at the Millbury Avenue Water Treatment Facility. Water from the two Jacques wells receives supplemental treatment using ion exchange to remove perchlorate from the water.

Cryptosporidium

The EPA requires public water systems that use surface water sources to monitor for Cryptosporidium. This is a microbial pathogen found in lakes and rivers throughout the U.S. that can cause gastrointestinal illness if consumed. Aquarion continues to monitor its surface water sources and has not detected Cryptosporidium.

Source Water Assessment Report

The Massachusetts DEP's Source Water Assessment Program (SWAP), which has evaluated each water source to identify potential contamination, states that the water sources that supply drinking water to the Millbury System have a high susceptibility to potential contamination. The report is available on the DEP website at mass.gov/dep/water/drinking/2186000.pdf.

(continued on page 6)

Monitoring Unregulated Contaminants

Unregulated contaminants are elements that currently have no health standards for drinking water and are not reported in the regulated contaminants table on page 3. Nickel is an

unregulated contaminant that is monitored at the same time as the required monitoring for inorganic compounds.

Substance (Units of Measure)	Test Date	Detected Level		Source of Contaminant.
		Average	Range	
Nickel (ppm)	2018, 2020	0.002	ND < 0.001 - 0.003	Erosion of natural deposits.
ppm Parts per million			ND Not detected	



Stewards of the Environment™

2019 Water Quality Report

Millbury System

Water: It's Too Precious To Waste.



Your Health Is Our Priority

Millbury System PWS ID#: MA2186000

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. In order to ensure tap water is safe to drink, EPA and MassDEP prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. More information about contaminants and potential health effects

can be obtained by calling the EPA's Safe Drinking Water Hotline **(800-426-4791)**.

Here is some additional information of interest about Aquarion's drinking water.

Where does your water come from?

Four supply wells in the Blackstone River Watershed provide the water for our Millbury customers. The water from each well is treated and then distributed to our customers through an extensive network of over 52 miles of piping and a 1.2 million-gallon water storage tank. Our system serves approximately 8,800 people. The average amount of water our sources delivered to the Millbury System in 2019 was 1.59 million gallons per day.

The City of Worcester supplemented our own sources by providing 14,345 gallons of water to our system in 2019, accounting for less than 1% of the total use. The distribution system is also interconnected to the water system in Grafton for emergencies or periods of high water use.

How is your water treated?

All water from the four wells is filtered naturally underground and then receives chemical treatment for disinfection and pH adjustment. The water from the Millbury Avenue Well receives additional treatment, including filtration at the Millbury Avenue Water Treatment Facility. Water from the two Jacques wells receives supplemental treatment using ion exchange system to remove perchlorate from the water.

Cryptosporidium

The EPA requires public water systems that use surface water sources to monitor for Cryptosporidium. This is a microbial pathogen found in lakes and rivers throughout the U.S. that can cause gastrointestinal illness if consumed. Aquarion continues to meet or exceed state and federal health and treatment standards. In addition, there are no reported cases of waterborne disease due to Cryptosporidium in Aquarion Water Company's drinking water.

Source Water Assessment Report

The Massachusetts DEP's Source Water Assessment Program, which evaluates each water source to identify potential contamination, states that the water sources that supply drinking water to the Millbury System have a high susceptibility to potential contamination. The report is available on the DEP website at mass.gov/dep/water/drinking/2186000.pdf.

(continued on page 5)

Monitoring Unregulated Contaminants

Unregulated contaminants are elements that currently have no health standards for drinking water and are not reported in the regulated contaminants table on page 3. Nickel is an unregulated contaminant that is monitored at the same time as the required monitoring for inorganic compounds.

Understanding Your Water Quality Table

- Barium:** Erosion of natural deposits.
- Copper:** Corrosion of household plumbing systems.
- Fluoride:** Erosion of natural deposits.
- Lead:** Corrosion of household plumbing systems.
- Nitrate:** Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
- Perchlorate:** Rocket propellants, fireworks, munitions, flares, blasting agents; breakdown product of disinfection additive.
- Turbidity:** Sediment particles; naturally occurring iron and manganese; soil runoff.
- Chlorine:** Water additive used to control microbes.
- Total Trihalomethanes:** By-product of drinking water chlorination.
- Total Haloacetic Acids:** By-product of drinking water chlorination.
- 2, 4-D:** Runoff from herbicide used on row crops.
- Radium 226 & 228:** Erosion of natural deposits.
- Chloride:** Naturally present in the environment.
- Manganese:** Erosion of natural deposits.
- Sodium:** Water treatment processes; use of road salt; naturally present in the environment.
- Sulfate:** Naturally present in the environment.

Substance (Units of Measure)	Test Date	Detected Level		Source of Contaminant
		Average	Range	
Unregulated Contaminants				
Nickel (ppm) ^{^^^}	2018, 2019	0.001	ND* < 0.001 – 0.003	Erosion of natural deposits.
		^{^^^} Only detected in the Oak Pond and Jacques wells.		*Not Detected