

PUBLIC NOTICE
IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Drinking Water at the Randolph Village Water System
Contains Elevated Levels of Manganese from the Pearl Street Well

Manganese is a metal that, in small amounts, is part of a healthy diet. Drinking water may naturally contain manganese and, when concentrations are greater than 0.05 milligrams per Liter (mg/L), the water may be discolored and have an unpleasant taste. Over a lifetime, the United States Environmental Protection Agency and the Vermont Department of Health recommend that people drink water with manganese levels less than 0.3 mg/L to protect the nervous system.

The Randolph Village Water System utilizes sequestration treatment for manganese at the Pearl Street well, which keeps the manganese in suspension but does not physically remove it from the water. Sequestration is intended to reduce aesthetic complaints about the color of the water and possible staining of fixtures that come into contact with water high in manganese. However, upon ingestion and digestion, the body breaks down the compounds keeping manganese in solution, which allows the manganese to be absorbed by the body as if there were no treatment at all.

A sample collected on May 12, 2015 from the Randolph Village Water System Pearl Street well resulted in a manganese concentration of 0.33 mg/L. The most recent 4 quarterly follow-up samples taken on October 4, 2017, January 17, 2018, April 4, 2018, and July 11th, 2018, resulted in a manganese concentration of, 0.35 mg/L, 0.31 mg/L, 0.33 mg/L, and .37 mg/l respectively, for an average of 0.34 mg/L. Because this average exceeds the 0.3 mg/L health advisory, the water system is required to sample quarterly for manganese. With the average of four consecutive quarters of sampling be at or above 0.3 mg/L, the water system is required to work towards developing a permanent means to provide drinking water to users that has manganese concentrations below the health advisory.

What should you do? What does this mean?

The body only needs a small amount of manganese to function. **However, the main concern with elevated levels of manganese is its effect on infants up to 1 year of age, as they are especially sensitive to excessive manganese.**

Do not use the water for making infant formula or infant food, or for drinking water for infants up to 1 year of age. Instead, use either bottled water or water from an alternate source with a manganese level below 0.3 mg/L.

To limit exposure, older children and adults may consider an alternate source of drinking water and cooking water.

Boiling, freezing, filtering or letting the water stand does not reduce the manganese levels. Excessive boiling can make the manganese more concentrated, because manganese remains behind when the water evaporates. Manganese in water is not a health concern when showering and bathing, washing food, or other household uses of water, including washing clothes.

What is being done?

The Randolph Village Water System has two sources of water: the Pearl Street well and the Pinnacle Road bedrock wellfield (4 wells). The elevated manganese levels are from the Pearl Street well, as the water testing of the Pinnacle Road wellfield showed manganese levels below 0.02 mg/L. Additional water testing was conducted at 13 locations throughout the system. Of these, only 2 – on Pearl Street and on Beanville Road – showed manganese levels above 0.30 mg/L.

As required by the State, the Randolph Village Water Department evaluated the following 3 alternatives for reducing or eliminating manganese in the water system:

1. Replace the Pearl Street well with a new water supply source that has manganese levels within acceptable limits.
2. Dilute the manganese concentration by pumping water from the Pearl Street, well directly to the Pinnacle Road storage reservoir. This will blend it with the water from the wellfield prior to distribution to customers.
3. Treat the water from the Pearl Street well to remove the manganese.

Of these options, it was decided to pursue finding a replacement for the Pearl Street well because, in the long run, this will be the best and most cost effective solution.

Currently, Three new wells have been drilled near the North Reservoir. The drillers yield for the wells were 80gpm, 40gpm, and 40gpm. Typically wells will get permitted for roughly ½ of the drillers yield. The initial pump tests have been performed and the water quality testing has been completed. At this time the town is working with the engineer to design a new treatment facility and working on cost analysis to repair the North reservoir, as the current liners are past their life expectancy and need to be changed, before catastrophic failure occurs.

What has changed? Why are you receiving this notice now?

The Vermont Department of Environmental Conservation (DEC) Drinking Water and Groundwater Protection Division has begun working with the Vermont Department of Health to address high levels of naturally-occurring manganese in drinking water. The Department of Health recently reviewed several studies that raise concerns about health effects caused by elevated manganese levels in drinking water. Additionally, DEC has begun analyzing manganese monitoring results state-wide. Based on these studies and analysis, DEC has concluded that additional steps are needed to protect public health at the Randolph Village water system. This notice is the first step in a process that will ultimately require reductions in drinking water manganese levels.

Where can I get more information?

Manganese information is available on the DEC website by accessing the following link:

<http://www.drinkingwater.vt.gov/wqmonitoring/pdf/guidancesheetusersMn>. The Randolph Village Water Department will continue to monitor manganese levels and will work with the DEC to keep you informed of all current information on this issue. For more information, contact Chris Chambers, Water System Superintendent at 802-728-9079.

If you have questions regarding water quality and reported manganese levels, please contact the Drinking Water and Groundwater Protection Division at 802-828-1535. If you have specific health concerns on manganese, contact your health care provider. To contact the Vermont Department of Health with questions regarding health effects, please call 1-800-439-8550. This notice and the DEC Guidance Sheet can be found on the Randolph Town website at <http://randolphvt.org/>

Landlords receiving this notice must share it with tenants.