



Board of Water and Sewer Commissioners  
**TOWN OF FOXBOROUGH**  
70 ELM STREET  
FOXBOROUGH, MASSACHUSETTS 02035

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**August 8, 2019**

**STATUS OF WELL #12**

**The use of Well #12 has been cut back.**

The Main Street Area consists of:

Main Street (near Wrentham line) up to #186	Lakeview Road
Pine Acres Road	Heritage Drive
Cranberry Road	Alger Road
South Cross Street	Forest Road
Cross Street	Elizabeth Road
Post Road	Lakeview Terrace
Old Colony Road	Laurel Tree Drive

**Why is this area experiencing brown water, and how is it different from last time?**

On Main Street, there is an automated valve that regulates pressure and flow from Route 1 to this area. That valve had malfunctioned, which greatly stirred up sediments, causing the last issue. That valve was repaired, and contact from the neighborhood reported that the water cleared.

The current issue appears to be directly related to the use of Well #12 off of Washington Street. The water from this well contains iron and manganese. When chlorine is added to water containing iron and manganese, and enough time passes, the iron and manganese can turn brown.

**What was done to prevent this oxidation?**

Treatment with a phosphate based chemical was added to “sequester” the iron and manganese. The goal of this treatment is to shield the iron and manganese from the chlorine to prevent oxidation and the water turning brown. The more time chlorine is in contact with the water, this treatment becomes less effective.

Because of the issue with the automated valve Well #12 was turned off July 17, 2019. It was turned back on August 2, 2019, just before Well #15 had to be shut off on August 5, 2019.

**As of today, August 8, 2019**, the use of the well was reduced from 24 hours a day, to only run when the Ashcroft Booster operates to send water from the main pressure district, which covers most of the Town, to the Route 1 and Main Street area. This action will reduce the amount of water Well #12 produces, and will blend it with water that does not produce the problem.

The good news is this action should greatly, or possibly completely, correct the problem. The challenge is this will add to the amount of water that was lost when Well #15 was shut off on August 5, 2019.

**Educational Information about manganese, as found in the Town of Foxborough Annual Drinking Water Quality Report:**

“Manganese is a naturally occurring mineral found in rocks, soil, groundwater, and surface water. Manganese is necessary for proper nutrition and is part of a healthy diet, but can have undesirable effects on certain sensitive populations at elevated concentrations. The United States Environmental Protection Agency (EPA) and MassDEP have set an aesthetics-based Secondary Maximum Contaminant Level (SMCL) for manganese of 50 ug/L (microgram per liter), or 50 parts per billion. In addition, MassDEP’s Office of Research and Standards (ORS) has set a drinking water guideline for manganese (ORSG), which closely follows the EPA public health advisory for manganese. **Drinking water may naturally have manganese and, when concentrations are greater than 50 ppb, the water may be discolored and taste bad. Over a lifetime, the EPA recommends that people drink water with manganese levels less than 300 ppb and over the short term, EPA recommends that people limit their consumption of water with levels over 1000 ppb, primarily due to concerns about possible neurological effects. Children younger than one year old should not be given water with manganese concentrations over 300 ppb, nor should formula for infants be made with that water for more than a total of ten days throughout the year.** The ORSG differs from the EPA’s health advisory because it expands the age group to which a lower manganese concentration applies from children less than six months of age to children up to one year of age to address concerns about children’s susceptibility to manganese toxicity.

See EPA Drinking Water Health Advisory for manganese at:

[https://www.epa.gov/sites/production/files/2014-09/documents/support\\_cc1\\_magnese\\_dwreport\\_0.pdf](https://www.epa.gov/sites/production/files/2014-09/documents/support_cc1_magnese_dwreport_0.pdf)

MassDEP Office of Research and Standards (ORSG) for manganese:

<https://www.mass.gov/files/documents/2016/08/nr/mangorsg.pdf>

**On July 15, 2019 the level of manganese on Main Street was 84 parts per billion (ppb).**

To help alleviate the concerns with manganese, the Foxborough Water Department is removing iron and manganese by utilizing the Witch Pond and Oak Street Water Treatment Plants. Other sources are blended with the filtered water using the wells having the lowest manganese first, as needed, to meet seasonal demands. Construction has begun on the Chestnut Street Water Treatment Plant, which will remove iron and manganese from the wells off Chestnut and Mechanic Streets. Treatment with a blended sodium phosphate is used for sequestration and corrosion control for the sources which are not currently filtered.

**Following the posted watering days and times will greatly help maintain adequate quantity and pressure for essential activities.**

**WE CAN EACH DO OUR PART TO CONSERVE WATER!**