

Manganese in Drinking Water

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TO: The Customers/Residents of the East Lyme Water and Sewer Commission
FROM: Brad Kargl, Utility Engineer

The CT Department of Public Health (DPH) recently set a drinking water Action Level (AL) for manganese of 0.3 mg/L. If an AL is exceeded, it requires the utility to provide treatment or implement other measures that will reduce concentrations below the AL. The AL is of particular concern to our system because two of our wells, Well 1A and 2A have concentrations above 0.3 mg/L.

Fortunately, this affects only a very limited area in our system because the remaining five wells have filtration to remove manganese. When blended with the water from Well 1A and 2A, the concentrations in the distribution system are below 0.3 mg/L except along Industrial Park Road, where the concentrations range between 0.20 and 0.33 mg/L. There are approximately 10 customers on Industrial Park Road.

Manganese levels in excess of the DPH recently adopted Action Level of 0.3 mg/L can be of special concern to infants and pregnant women. Children under the age of 1 year should not be given water to drink or have baby formula prepared with water when above the AL. It is advisable that pregnant women also avoid drinking water with concentrations of manganese above the AL. Please refer to the town website for a fact sheet on manganese in drinking water prepared by the DPH.

Plans are already underway to provide filtration for Well 1A to remove manganese and were initiated to improve the aesthetic quality of the water. Even at very low concentrations, manganese can impart a color, odor or taste to the water. Construction is expected to start this fall and will take approximately a year to complete. The project is estimated to cost \$4.6 million and is receiving funding from the Drinking Water State Revolving Fund. When completed, Well 1A will meet the new action level requirements for manganese.

We also completed a conceptual design for improvements to Well 2A and are working with the DPH to develop further plans to meet the new action level requirements for this well.