

DISCOLORED WATER FREQUENTLY ASKED QUESTIONS

What causes the discolored water in town?

Discolored water is primarily caused by the presence of manganese in the water and distribution system.

What is manganese and where does it come from?

Manganese is a common naturally occurring mineral found in soil and groundwater. It is a natural component of most foods.

Is manganese absorbed through the skin?

Manganese is poorly absorbed through skin. According to the EPA skin contact with liquid containing manganese is an unlikely exposure route of concern.

What are levels of concern regarding manganese?

The USEPA and MassDEP currently list manganese as a secondary contaminant. The EPA has a lifetime health advisory limit of .300 mg/L

Does the town test for manganese?

The water department collects samples on a monthly basis at 8 sites throughout town. These samples are sent to an independent 3rd party lab. This lab uploads the results directly to the MassDEP database.

What is the typical range of manganese concentration in the samples?

The typical range of the collected samples is between .010-.050 mg/L.

What causes temporary periods of increased water discoloration?

Water main breaks, fires, large construction projects and hydrant flushing can cause changes in the typical flow of water in the distribution system which stirs up sediment in the pipes. It is recommended to flush an outside tap during these periods.

Why is discolored water more frequent in summer months?

Scituate water comes from a combination of wells and surface water. The surface water source has a high level of manganese and in summer months more surface water is needed to meet demand. Years ago raw water from a well with high manganese content was pumped into the surface water supply to supplement available supply. This caused a higher manganese level than is typically found in surface water.

Why doesn't the surface water treatment plant remove more manganese?

The surface water treatment plant went online in 1968 and was not designed to remove manganese when constructed. Improvements have been made but the town is limited in what it can do with the existing plant.

What has the town done and what are they doing to try to improve manganese removal and water quality?

The town conducted a pilot study to treat the source water with potassium permanganate. This treatment was not effective. The town has added aeration to the source water in Old Oaken Bucket Pond. The town is exploring ways to improve raw water quality at Old Oaken Bucket Pond. In spring

2023 the town piloted a manganese contactor to filter the finished water coming out of the plant with positive results. The town is in the process of expanding this treatment of the finished water. The town has implemented a unilateral hydrant flushing program to remove accumulated sediment in pipes. This flushing program can only take place in the spring and fall and is dependent on the amount of water available in the reservoir. Lastly, the town is in the process of constructing a new surface water treatment plant. This treatment plant went through an extensive pilot process to determine the best treatment techniques to use on the towns source water with an emphasis on manganese removal.

While we certainly understand the frustration expressed by town residents please know that we continue to strive to do whatever we can to improve the water quality in town.