



Chlorine in Drinking Water

The Town of Rowley's drinking water has an average of 1.00mg/l of chlorine. We are required by Mass DEP to have a detectable amounts of chlorine throughout the distribution system. Customers that live closest to the water plant may notice a stronger smell than customers that live on the other side of Town. This is because the chlorine gets used up along the way. This is called the chlorine demand of the system. We need to have a minimum of 0.20 mg/l at the farthest extremities of the system. In order to meet this goal we need to add enough chlorine to the drinking water meet the demand and have some left over. What is left over is called chlorine residual.

Chlorine dose - Chlorine demand = Chlorine residual

The treatment and distribution of water for safe use is one of the greatest achievements of the twentieth century. Disinfection of your drinking water protect you and your family against water born disease. In addition to controlling disease-causing organisms, chlorination offers a number of benefits including:

- Reduces many disagreeable tastes and odors;
- Eliminates slime bacteria, molds and algae that commonly grow in water supply reservoirs, on the walls of water mains and in storage tanks;
- Removes chemical compounds that have unpleasant tastes and hinder disinfection; and
- Helps remove iron and manganese from raw water.

As importantly, only chlorine-based chemicals provide residual disinfectant levels that prevent microbial re-growth and help protect treated water throughout the distribution system.

In storage and distribution, drinking water must be kept safe from microbial contamination. Frequently, slippery films of bacteria, known as biofilms, develop on the inside walls of pipes and storage containers. Among disinfection techniques, chlorination is unique in that a pre-determined chlorine concentration may be designed to remain in treated water as a measure of protection against harmful microbes encountered after leaving the treatment facility.

Visit the EPA's website to find out more on chlorine.

<http://water.epa.gov/drink/contaminants/basicinformation/disinfectants.cfm>