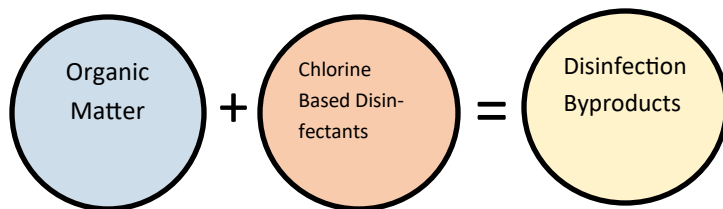


## DISINFECTION BYPRODUCTS

Chlorination of Drinking Water

**What are Disinfection Byproducts (DBPs) ?**

Water systems commonly add chlorine to drinking water to kill or inactivate harmful organisms in a process call “disinfection.” During disinfection of the water treatment process, chlorine reacts with total organic carbon (TOC) of organic matter. The TOC’s are left over after plants and leaf litter break down in rivers, lakes, and streams. This reaction forms disinfection by-products (DBPs).

**What does it mean for me when DBP’s exceed the maximum contamination limit?**

First, this is not an emergency. If it had been, you would have been notified by BLSMWC immediately. DBP’s including haloacetic acids (HAA5’s) occur normally in drinking water that is disinfected with chlorine.

People drinking water containing HAA5’s in excess of the maximum contamination limit over many years may have an increased risk of getting cancer. Consequently the US EPA has set standards for controlling the levels of disinfectants, byproduct precursors and DBP’s in drinking water.

**Do the benefits of chlorination outweigh the health risks of DBP?**

Yes! Adding chlorine to drinking water sources with bacteria and other harmful organisms makes the water safer to drink. When used correctly, chlorine kills or inactivates harmful microorganisms that cause diseases, such as E. coli infection, typhoid, cholera and dysentery. The immense benefits in reducing infectious diseases, and the simplicity and low cost of water treatment using chlorine, makes chlorination the most appropriate disinfectant for most water systems.

More info on DBP’s can be found at [www.blsmwc.com](http://www.blsmwc.com) and [www.ccwd.org](http://www.ccwd.org)

**Let’s break things down:**

- ◆ Routine DBP testing occurs at key BLSMWC sample sites: **Every 3 months.**
- ◆ Maximum Contaminate Level (MCL) for Haloacetic Acids (HAA5): **60 parts per billion (PPB)**
- ◆ Number of BLSMWC key sample sites in the BLS Service Area: **4-10 sites**
- ◆ Number of BLSMWC sample sites exceeding the MCL limit for HAA5’s during the last routine test: **1 site, at 63 ppb**

**So, how much is 1 part per billion?**

1/2 teaspoon (or 1 ml) of water in an Olympic sized swimming pool.



## WHAT CAN WATER SYSTEMS DO TO REDUCE THE FORMATION OF DBP'S?

Many water systems may be able to reduce the amount of DBP's formed without reducing public health protection by using one or more of the following methods:

- Remove or reduce the organic substances that react with the chlorine to produce DBP's.
- Reduce the contact time and/or the concentration of chlorine in the distribution system.
- Ensure adequate turnover in storage tanks and eliminate areas of stagnant water.
- Reduce the "water age" (the length of time water is in the distribution system.)



## NEXT STEPS:

What is BLSMWC doing to lower DBP levels in the BLS Subdivision?

BLSMWC realizes that this is a very important matter and is working diligently to decrease the DBP levels. We are working earnestly and purposefully to implement measures to restore the water supply and to assure future water quality tests are within the SWRCB acceptable DBP range.

BLSMWC is currently:

- BLSMWC is only using treated water from our well source.
- Flush throughout the system.
- Lower the level of water in the storage tanks to decrease the age of the water.