

What are Common Contaminants in My Watershed?

High **nitrate** levels are a concern in drinking water because nitrate can cause methemoglobinemia or blue baby syndrome, a condition found especially in infants less than six months of age. Infants should not drink water that exceeds 10 mg/l 'nitrate-nitrogen.' This includes formula preparation. The Center for Disease Control warns that, "Heating or boiling your water will not remove nitrate and because some of the water will evaporate during the boiling process, the nitrate levels of water can actually increase slightly in concentration.

Nitrates and phosphorus are also called nutrients and can promote blooms of harmful algae and cyanobacteria. The organisms created can cause an unpleasant taste and odor to treated drinking water and may produce substances known to be toxic to humans and animals.

Bacteria are easily removed and killed during water treatment. However, unnaturally high levels of bacteria can indicate increased amounts of human or animal waste in the river, stream or lake, and is a sign of an unhealthy watershed system, and can be an indicator that other organisms are present.

It takes 7-10 times the amount of chlorine to counteract **Ammonia** in source waters. This presents multiple problems including; increased use of chlorine, difficulty maintaining adequate disinfection levels, objectionable tastes and odors and elevated levels of disinfection byproducts.

Disinfection by-products are formed when chemical disinfectants react in the water with natural organic matter (Natural organic matter originates from the breakdown of plants and animal waste in the soil).

Des Moines Water Works' state certified laboratory monitors water at the source, during treatment, and in the distribution system. In addition to routine monitoring, DMWW monitors and conducts research on emerging contaminants to ensure we continually provide public health protection by providing safe drinking water.