

Algal Bloom FAQ's

What is an algal bloom?

An algal bloom or marine bloom is a rapid increase in the population of algae in an aquatic system. They may occur in freshwater as well as marine environments. Algae are considered to be blooming at concentrations of hundreds to thousands of cells per milliliter, depending on the causative species. Colors observed are green, yellowish-brown, or red. Bright green blooms may also occur. These are a result of blue-green algae, which are actually bacteria (cyanobacteria).

Why does the City's drinking water have a different taste and smell?

The change in taste and smell is caused by non-harmful byproducts of a naturally occurring algae bloom in our source water called geosmin and MIB (2-methyl isoborneol). Corpus Christi receives 50% of its source water from Lake Corpus Christi and Choke Canyon via the Nueces River, and the other 50% from a combination of Lake Texana and Colorado River water. Surface water is prone to algae blooms when there is warmth and sunlight.

What is Geosmin?

Geosmin and MIB are naturally-occurring compounds and are not harmful, but can give the water a musty, earthy, or fishy taste and smell. Algae blooms are seasonal, and since geosmin and MIB are naturally-occurring, they will diminish with time.

How is Geosmin produced?

Geosmin is produced by several classes of microbes (including cyanobacteria, actinobacteria, and Streptomyces) and is released when these microbes die. Communities whose water supply depends on surface water like our city can periodically experience episodes of unpleasant tasting water when a sharp drop in the population of these bacteria releases geosmin into the local water supply. Under acidic conditions, geosmin decomposes into odorless substances.

Is the City water safe to drink?

The City's drinking water is safe and continues to meet or exceed all federal and state water quality standards. The taste and odor that results from geosmin and MIB is a palatability issue, it is not a health concern. City staff will continue to monitor and test the water.

What is the City of Corpus Christi doing in regards this issue?

Operators at O.N. Stevens Water Treatment Plant continue to treat the raw water and make it potable.

We have great water quality and are meeting or exceeding all federal and state water quality standards.

If we receive a customer concern, we will meet them at their residence, take samples, and flush as needed until the customer is satisfied.

How long will the taste and odor last?

The algae bloom are a seasonal event. Since geosmin and MIB are naturally-occurring, they will diminish in the water supply with time and weather changes. The temporary change is anticipated to last 5 – 7 days but could last longer depending on surface water temperatures and weather.

How can the taste and odor be reduced at the tap?

To make the water taste better, try chilling it, adding ice cubes, a slice of lemon, or a few drops of lemon juice.

Additional resources:

<https://www.publicworks.houstontx.gov/taste-drinking-water>

<https://www.longviewtexas.gov/2672/Frequently-Asked-Questions>

<https://www.cedarhilltx.com/1373/Water-Quality>

<http://www.cityofpalestinetx.com/default.aspx?name=city.news&a=216>