

Taste and Odor Facts

Is the water safe to drink?

Yes. The taste and odor is a palatability issue. No health hazards are created regardless of the taste and odor.

What causes the taste and odor change?

Each summer, throughout the months of July, August, and September, lakes and other surface water supplies experience a natural event – an "algal bloom." Algal blooms are common to surface water supplies in warm weather climate states like Texas.

What are the conditions for an algal bloom to occur in Lake Lavon?

1. Nutrients must be present -- such as nitrogen, phosphorous, and calcium, which are derived from decaying vegetation in the lake.
2. Turbidity has lessened -- the turbidity or cloudiness of the lake water has cleared up, allowing the penetration of the sunlight. This occurs due to lack of rain.
3. Temperature increase -- the optimum temperature range of the lake water for an algal bloom is 80° - 85°. This is provided through many hot summer days.

When all conditions are met, photosynthesis will take place and the algae will grow or proliferate. Algal species, such as anabaena secrete an "oily" substance from their cells that causes an odor in the water supply. Aquatic fungi, actinomycetes, grow on dead and decaying algae and cause an earthy taste in the water.

What steps does the District take to control the taste and odor?

NTMWD utilizes several steps to control the taste and odor produced by the algal blooms. Laboratory personnel, through daily analysis, perform algal counts and can determine the onset of an algal bloom. With the onset of an algal bloom, additional chemicals are added to the treatment process. Potassium permanganate is added as an oxidizing agent in reducing the odor levels. To reduce the unpleasant taste, activated carbon is used as an absorption media. Each of these chemicals is removed during the treatment process prior to delivery of the potable water supply. Chlorine, which is used as the disinfectant in the treatment process, also aids in odor reduction.

The water is safe to drink with no health hazards created regardless of taste and odor.