Beaver Water District

FACT SHEET
Taste and Odor

Taste and odor compounds in drinking water can result in unpleasant tasting or smelling water, especially for those with sensitive palettes. Taste and odor changes can be the result of naturally occurring lake processes and changes to how we treat the water at the drinking water treatment plant.

Regardless of any change in taste or smell, the water is safe to drink. For water users that are particularly sensitive to taste and odor issues, try chilling the water, letting the water sit refrigerated in a pitcher overnight, adding ice cubes, adding a slice of citrus, or filter it with a standard charcoal filter to make the water taste better.

Naturally Occurring Taste and Odor

- Originating in the lake, the two most common taste and odor compounds are **2-Methylisoborneol (MIB) and Geosmin**. Both compounds can impart an earthy or fishy taste or smell to drinking water and can be detected by people at extremely small concentrations. A tablespoon mixed into all the water we produce in an average day would be detectable by most people.

- **MIB and Geosmin are produced by naturally occurring algae and cyanobacteria within Beaver Lake.** Algae and cyanobacteria grow more rapidly in the summertime and can release these organic compounds in higher concentrations.

- **In early fall when the temperatures begin to cool off, the lake experiences turnover, and water mixes from top to bottom.** This causes compounds to rise from the bottom of the lake to the top. Various organic components may then be introduced into the raw water supply, and this frequently leads to taste and odor problems. [1]

Treatment and Distribution Related Taste and Odor

- There are also some taste and odor changes that can occur when disinfectants are used in the drinking water treatment process. **The same chemical (chlorine) used to ensure your water is free from illness causing pathogens, can add a chemical or medicinal taste/smell to your drinking water.**

- Taste and odor caused by disinfection chemicals is impacted most by the temperature of the water and by water age, which is the length of time the water spends within the distribution system before being delivered to a customer. **Higher temperature and shorter time in the distribution system can both lead to an increase in perceived chemical or medicinal taste/odor**.

[1] USGS - Significance of Water Temperature

###

About Beaver Water District

Beaver Water District supplies drinking water to people and industries in Fayetteville, Springdale, Rogers, Bentonville and surrounding areas. These cities then resell the water to surrounding towns and communities. The District's mission is to sustainably provide our customers with safe, economical drinking water. For more information, visit www.bwdh2o.org.