TASTE, ODOR, COLOR, AND SEDIMENT IN WATER

TASTE AND ODOR

Chemical/Chlorine

We normally disinfect water with chloramines, a compound of chlorine and ammonia with little to no odor. Customers may notice a chemical or chlorine taste and odor in March, when we disinfect with chlorine. We switch to chlorine in March to ensure a high level of disinfection as recommended by the NC Department of Environmental Quality and US Environmental Protection Agency.

To remove chlorine from water, you can:

- filter the water with an activated carbon filter such as a Brita pitcher filter,
- let the water sit uncovered in the refrigerator for a day,
- boil the water for one minute to evaporate the chlorine,
- add a few lemon slices to a pitcher of water. Ascorbic acid from the lemon will naturally dechlorinate the water.

Once you remove chlorine, refrigerate the water to limit bacterial regrowth. OWASA does not recommend that the public remove all traces of a disinfectant in their drinking water.

Earthy/Musty

An earthy or musty taste and odor, particularly in warmer weather, may result from organic matter in our reservoirs. In the fall, the water layers of the reservoirs mix stirring up sediment including organic matter. These compounds are harmless.

Odor from a drain

Odor may come from the sink drain where debris collects and causes odor. To check whether the drain is the odor source, fill a clean glass with water and smell it in a separate room or outdoors. If water in the glass has no odor, the odor is likely from the pipe under the sink. We recommend pouring bleach in the drain to remove odor.

Sinks, drains, etc. have p-traps, which block odors in drains and sewers from entering a building with a water barrier. If a drain is not used, the p-trap may dry out and allow odor to enter a building. To refill a p-trap, pour water down the drain.

DISCOLORATION

Cloudy or Milky

Air bubbles can make water look cloudy or milky. Running cold water for 5-10 minutes should clear the water.

Yellow to Dark Brown

If discoloration is **only in hot water**, accumulated sediment in the hot water tank is likely the source. We recommend flushing water heaters annually per the manufacturer's instructions or contacting a licensed plumber for advice.

If cold water is yellow, brown, or rusty, the cause is likely iron or manganese sediments that have settled in OWASA pipes. Maintenance, repairs, construction, or releasing water from a hydrant may stir up these particles and cause discoloration. Running cold water (at a bathtub faucet if available) for 5 to10 minutes should clear up discoloration.

Green or Blue

If water is green or greenish blue, this may indicate deterioration of copper plumbing (e.g., in a water fountain). We recommend checking with a licensed plumber to find the source of deterioration and a possible solution.

Black/Grey or Pink/Orange Slime

Bacteria, mold and fungi can grow where water is exposed to air (e.g., in a toilet bowl or shower). These growths are produced by airborne fungal spores or bacteria (not from drinking water). We recommend scrubbing and cleaning the toilet, shower, etc. with bleach. Ventilation and wiping damp areas can help reduce these growths.

SEDIMENT

Black Particles

Black particles are often iron and manganese. Iron and manganese are naturally present in our reservoirs and iron pipes in our water system can be a source of these particles. Maintenance, repairs, construction, or releasing water from a hydrant may stir up these particles.

Another source of black particles is disintegration of toilet flappers, rubber washers, o-rings, membranes in thermal expansion tanks on water heaters, and liners of flexible hoses (e.g., water heaters or under sinks). Chloramines can contribute to disintegration of rubber. We recommend replacing the deteriorating rubber component (such as a toilet flapper) with one that is resistant to chloramines.

White Particles

White particles often come from the hot water system. Typically, white particles are calcium carbonate or zinc oxide caused by dezincification (described below).

Dissolved calcium is naturally present in our water. Calcium can change to calcium carbonate, accumulating in water heaters over time. We recommend annually flushing heaters per the manufacturer's instructions to remove sediment.

DEZINCIFICATION

Dezincification is the release of zinc from brass. When zinc is released, it often forms zinc oxide, a white sediment which may block or slow the water flow. The loss of zinc may also weaken the brass fitting or result in leaks.

High zinc content brass is especially prone to dezincification. Recirculating water heater systems may be susceptible to dezincification because heat accelerates the buildup of zinc oxide. Under current codes, brass fittings are required to have a low level of zinc to limit the potential for dezincification. Dezincification resistant brass fittings are available.

Direct connection of dissimilar metals (e.g., brass and steel or brass and copper) can accelerate dezincification. Plumbers use fittings called dielectric unions to separate dissimilar metals and minimize the potential for galvanic corrosion.

LABORATORY CONTACT INFORMATION

If you are concerned about your water quality or wish report a taste, odor, discoloration, or other water quality issue, please contact our Water Treatment Plant Laboratory staff at 919-537-4228 or wtplaboratory@owasa.org.