

GENERAL OVERVIEW

The San Francisco Public Utilities Commission (SFPUC) Water Quality Division (WQD) responds to consumer complaints regarding drinking water quality issues. Characteristics related to the physical appearance of water such as clarity, color and/or the presence of particles are used by customers to report drinking water quality concerns.

SOURCES

Common complaints regarding water clarity, color and/or the presence of particles may be due to several different reasons based on the following descriptive categories:

- **MILKY/CLOUDY WATER:** If you notice that your water is milky, cloudy, and/or looks white this may indicate the presence of air bubbles in the water. In order to determine if this is due to air in the water, fill a clear glass with water and allow it to sit for a couple minutes. The air bubbles should rise to the top and the cloudiness will dissipate if there is simply air in the water. All water contains dissolved oxygen; however, changes in water temperature and pressure results in supersaturation or bubble formation.
- **DIRTY/DISCOLORED WATER (RUSTY, YELLOW, BROWN):** Your water can appear to look “dirty” with particles and/or brown in color due to the presence of rust or sediment from piping materials in the water distribution or plumbing systems commonly caused by:
 - Breaks in the water mains or hydrants.
 - High water flow situations such as system tests or maintenance, construction activities or firefighting activities.
 - Rust from plumbing in the water mains, homes or other buildings.

Check for persistent discoloration by opening the cold water tap closest to the water meter and let it run for 3-5 minutes to see if it clears up. If the water does not run clear after a 5 minute flush, close the fixture, wait one hour and repeat (may take several hours for sediments to settle in the water main). If the water clears you can flush other plumbing fixtures in the home or business by opening faucets or flushing toilets. If your hot water does not run clear, it is possible that the dirty/discolored water has entered your hot water heater or boiler. To avoid drawing discolored water into your water heater/boiler, avoid using the hot water until the cold water clears up. In that case, it is recommended that you call a plumber to flush the water heater or boiler.

- **WHITE PARTICLES IN WATER:** If the particles in the water are white in color and float to the surface, this may indicate deterioration of the dip tube in the hot water heater. The dip tube extends to near the bottom of the hot water heater and is used to introduce cold water. White

particles may also indicate that mineral deposits or scale have formed on piping or plumbing fixtures and have become dislodged.

- **BLACK PARTICLES IN WATER:** If the particles in the water appear to be black and float to the surface, then they are normally caused by degradation of rubber (elastomer) plumbing parts in plumbing fixtures or hoses inside your home or business. These particles appear oily and will smudge or smear surfaces. Chloramine, which is used by SFPUC to disinfect the water, can accelerate the degradation process on certain types of rubber. Make sure that all replacement plumbing parts are made of chloramine resistant material.
- **SANDY WATER:** Sandy water can be caused by particles that have accumulated over time in the distribution system or from unfiltered water systems. If the problem persists, flushing of the service main may be required.

MONITORING AND TREATMENT

The SFPUC routinely monitors for inorganic contaminants, such as metals, that can be naturally occurring or result from corrosion of metals (e.g., rust). The presence of these metals is not typically detectable or detected at very low levels in the water supply. These very low levels are within the public health limits set by the United States Environmental Protection Agency (EPA) and the State Water Resources Control Board and do not pose any negative health risks. Please refer to the references section below for more information on the regulations of these metals and other contaminants.

In addition, the SFPUC monitors for turbidity, which is a water clarity indicator that is used to indicate the effectiveness of the filtration system. High turbidity can hinder the effectiveness of disinfectants. To learn more about monitoring results for turbidity, please refer to the SFPUC Annual Water Quality Report (<http://sfwater.org/index.aspx?page=634>).

HEALTH CONSIDERATIONS

Drinking water quality is regulated by established maximum contaminant levels (MCLs) for the protection of public health. Secondary MCLs are used by public water systems to ensure the aesthetic quality of drinking water such as odor, taste and appearance. The regulation of contaminants for aesthetic concerns that do not pose a risk to human health serves as guideline for SFPUC to deliver water that meets or exceeds federal and state drinking water quality standards. To learn more about specific information regarding drinking water standards, please refer to the SFPUC Annual Water Quality Report (<http://sfwater.org/index.aspx?page=634>).

REFERENCES

EPA: "Secondary Maximum Contaminant Levels"

<http://water.epa.gov/drink/contaminants/secondarystandards.cfm>

SWRCB Division of Drinking Water: "Secondary Maximum Contaminant Levels"

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/recentlyadoptedregulations/R-21-03-finalregtext.pdf

SFPUC: "Annual Report"

<http://sfwater.org/index.aspx?page=634>

CONTACT US

If you still have concerns about the quality of water and would like to report emergency water quality issues, please call our 24-hour hotline at 3-1-1 (within SF only) or 415-701-2311. You can also visit <http://www.sf311.org/>.