



Q&A: Black Residue on Utility Fixtures

Below are questions and answers regarding black residue that may be found around utility fixtures.

Is the black residue on my fixtures caused by the town's water?

This residue is likely the result of bacteria feeding on oxidized iron and manganese in the water or a reaction between ammonia that the town uses for disinfection and the rubber in faucet rings or toilet flaps. The residue does not generally indicate a problem with water quality. If you have questions concerning your water quality, call the Hillsborough Water Treatment Plant at 919-732-3621.

What is causing the black residue?

The residue may be the result of bacteria feeding on oxidized iron and manganese in the water. Iron and manganese are naturally occurring minerals and are in most water across the United States. During 2022, Hillsborough saw changes in the quality of its water source, the Eno River, due to dry conditions in the summer and fall and issues with the chemical pumps at the raw water intake, which required repairs. These situations also left some pockets of high manganese levels in the town's water system. The bacteria that feed on iron and manganese are non-health threatening. As they feed on the minerals, they form red-brown or black-brown residue that can clog water systems and cause a foul odor.

The residue also could be a reaction between the ammonia that the town uses for disinfection and the rubber in faucet rings or toilet flaps. Hillsborough and neighboring utilities use chloramines — a compound of chlorine and ammonia — to disinfect and preserve water.

How do I get rid of the black residue?

To remove the iron and manganese bacteria, use equal parts of white vinegar, peroxide and water to clean any residue seen. This solution can be used periodically as a preventative measure on utility fixtures.

To resolve the issue of a reaction between ammonia and rubber, the rubber materials in faucets and toilets can be replaced with materials that can withstand ammonia. Check labels on replacement products.

To request testing or to make utilities crews aware of the issue and location, call the Hillsborough Water Treatment Plant at 919-732-3621. Crews can take a water sample from the home to determine the cause and discuss solutions with the resident. They also can sample water in the area and flush water mains to clear any pockets of greater amounts of manganese.