

## **Iron and Manganese in Drinking Water**

Iron and manganese are minerals that occur naturally in groundwater. These minerals can discolor water and affect its taste. The U.S. Environmental Protection Agency doesn't regulate iron and manganese for health reasons because the EPA doesn't currently consider these minerals to be a risk to human health.

There are two forms of iron and manganese: soluble and insoluble. Insoluble forms of iron and manganese cause most of the discoloration problems that Aqua's customers experience in North Carolina. Aqua is working to install filters or additional treatment on our wells where iron and manganese cause discolored water. Our operators also flush the distribution systems in these communities to clear out the pipes where these minerals might have settled over time.

### **What Customers Can Do to Help Reduce the Effects of Iron and Manganese:**

Water from your tap might be clear, but when exposed to air or chlorine, iron and manganese might oxidize and change from a colorless, dissolved (soluble) form to a colored, solid (insoluble) form. Exposure to heat might also cause the iron and manganese to change from a colorless, dissolved form to a colored, solid form.

At certain concentrations, iron has the potential to stain laundry, porcelain, dishes, utensils and even glassware a reddish brown. At elevated concentrations, manganese causes a brownish-black stain. Soaps and detergents don't remove these stains, and chlorine bleach and some laundry detergents can intensify stains.

- Products such as Iron Out or other bleach-free detergents might help remove stains caused by iron and manganese.
- Most manufacturers recommend flushing water heaters at least once a year to help reduce the buildup of sediment and mineral deposits.
- Reduce the temperature of your water heater. The higher the temperature, the more likely minerals will build up in the water heater.
- Washing laundry in cold water may reduce the staining of laundry caused by iron and manganese.
- When Aqua schedules a flush for the distribution system in your area, it's important that you limit use of the water for that period of time. In most cases, Aqua will notify you before any planned flushing.
- If you notice discolored water following a flushing event, always go to your outdoor spigots and run the water for a short period of time. If this does not clear your water, please call Aqua at 877.987.2782 to schedule a technician to visit your home, sample the water, and perform additional flushing of the water main if deemed effective.