



## Why is the water orange?



### ***The water in the stream near my home looks orange and oily. Why is that?***

The orange, fuzzy deposits in the photo to the right are called iron-oxide deposits. When iron bacteria (*Sphaerotilus-Leptothrix*) “feed” on iron in water, the dissolved iron reacts with oxygen in the air and forms rust-colored iron oxides. These deposits can be found in lakes and streams and often occur on hot, dry days when the water is sluggish. You may notice an unpleasant odor.

### ***Are iron bacterial harmful?***

Although water with iron-oxide deposits looks strange, this process occurs naturally, is not toxic to fish and aquatic life, and does not pose an environmental health risk.

### ***Where does this type of bacteria come from?***

Iron is a common element found in water and soils. A small movement of earth into a lake can set off a process of iron bacteria forming iron-oxide deposits. Iron-fixing bacteria are not new. They’ve probably existed in streams for over a million years!

### ***I also noticed an oily sheen in the stream...***

Oily sheens often indicate that iron bacteria are present. These sheens are different from those caused by petroleum products, because they break apart when disturbed. Throw a stick into the water. If the sheen breaks apart into pieces, it is probably a result of iron bacteria. If the sheen just ripples but stays together, it may be due to a petroleum product, which can be harmful to fish.

### ***What can we do about iron-oxide deposits?***

Because iron bacterial is not harmful, the best thing to do is to wait for the water to clear. Dissipation often occurs after a rain shower. If you see something that could be water pollution in Everett, please call the City of Everett Utilities Division any time at 425-257-8821.