

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.