

# When Surface Waters Turn Colors

## Is it always a sign of pollution?



### POLLEN

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Pollen from plants, especially trees like pine, can be found in the late spring floating on surface waters. This naturally occurring phenomenon can look like a film on the water or appear as discolored pockets in the water.

When deciding if the phenomenon is natural, consider the following:

- Time of year: spring and summer are prime times for pollen deposits.
- Wind direction: pollen will be found downwind of the plant source.

### TANNIN

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This is a natural occurrence caused by decomposition of organic material. Much like steeping a tea bag in a mug, leaves and other organic material release tannins which can cause a stream to turn a darker color.



## IRON BACTERIA

This fuzzy, orange substance is a type of bacteria. This bacterium oxidizes dissolved iron contained in groundwater. This process is similar to rust forming on metal. Oxidation prevents iron from dissolving in the water and produces either an orange colored slime or an oily sheen.



This indicates that the stream is partially fed by groundwater. One way to tell the difference between a

petroleum discharge and iron bacteria is to run a stick through the sheen. If the sheen shatters like glass, it is iron bacteria. If the sheen comes back together, it may be a petroleum spill.

## SOCIAL NETWORKING



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