FACT SHEET

Iron Bacteria

August 2022

What is Iron Bacteria?

Iron bacteria are long thread-like bacteria that secrete slime, occur naturally, and "feed" on iron in water and soil.

Unlike most bacteria that get their energy from decomposing organic matter, iron bacteria get their energy from oxidizing ferrous iron.

Iron bacteria deposits tend to occur in slow moving bodies of water which have a high amount of iron rich soil present.

What causes it?

Iron bacteria are caused by a combination of minerals, chemistry and biology. Iron is a common element in SEQ soils and when it combines with oxygen and water, there is the potential for iron bacteria to form.

When the dissolved iron reacts with oxygen in the air, it forms rust-coloured iron oxides. These deposits frequently occur after heavy rain or long dry periods.

Where does it occur?

- Creeks and Streams where groundwater is present
- Steep slopes where water seeps through the soil
- Stormwater infrastructure (Pipes, gutters and gullies)

Appearance

Iron bacteria are typically rust- coloured, slimy and have an oily or film appearance on the water's surface.

This film can be distinguished from oil by taking a stick and running it through the film. If the film breaks apart it's likely to be iron bacteria. If it quickly pulls back together and adheres to the stick it's likely to be oil. You may also notice a foul, swampy odour, similar to the smell of rotten vegetables.

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Is it dangerous?

Although water with iron bacteria usually looks strange and alarming, these bacteria are a natural occurrence and are not dangerous to people or our waterways.

Iron bacteria are not raw sewage or hazardous material. The deposits are, however, very slippery so care should be taken when walking in and around bodies of water that contain iron bacteria.