

# Environmental Newsletter

## WHAT'S NEW ABOUT DISSOLVED OXYGEN?

### Impact of D.O. levels on Aquatic Life

Total dissolved gas concentrations in water should not exceed 110 percent. Concentrations above this level can be harmful to aquatic life. Fish in waters containing excessive dissolved gases may suffer from "gas bubble disease". The bubbles or emboli block the flow of blood through blood vessels causing death. External bubbles (emphysema) can also occur and be seen on fins, on skin and other tissue. Aquatic invertebrates are also affected by gas bubble disease but at levels higher than those lethal to fish.

Adequate dissolved oxygen is necessary for good water quality. Oxygen is a necessary element to all life forms. Natural stream purification processes require adequate oxygen levels in order to provide for aerobic life forms. As dissolved oxygen levels in water drop below 5.0 mg/l, aquatic life is put under stress. The lower the concentration, the greater the stress. **Oxygen levels that remain below 1-2 mg/l for a few hours can result in large fish kills.**

Our **HI 9142** and **HI 9143** are perfect for measuring D.O. levels! It is important to note that field analysis is recommended over laboratory analysis since the tests should be performed right after the sample is taken.



***Did you know that our dissolved oxygen probes can come with a cable length up to 100 ft (30 m)!***

***In fact, there are four different lengths available to meet the many applications in the field :***

- ***13 ft (4 m) - HI 76407/4***
- ***33 ft (10 m) - HI 76407/10***
- ***67 ft (20 m) - HI 76407/20***
- ***100 ft (30 m) - HI 76407/30***



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