

Iris

Phosphorus

What is phosphorus?

Phosphorus is a common part of agricultural fertilizers and manure. It is an organic waste in industrial and sewage effluent (when it is discharged into a river or the sea).

Phosphorus is an essential element for plant life, but when too much is in water it can speed up eutrophication. Eutrophication is when there is an excessive richness in nutrients in a body of water which causes the reduction of dissolved oxygen. This can be bad because animal life will die due to a lack of oxygen. Soil eroding into streams is a big contributor to phosphorus in water.

How we measured phosphorus in the river

We measured the phosphorus in the river by collecting a sample of the water and then adding a PhosVer powder pillow packet to the sample. Then we made another sample of the river water that had none of the powder pillow in it. We then used a meter to measure how much phosphate was in our water.

Relationship between phosphorus and human activity

A relationship that phosphorus has to human activity is agriculture. Farmers will put fertilizer containing phosphorus on their plants, and excess fertilizer will rinse off the plants during rainstorms, and will go into rivers and streams. This can cause eutrophication.

In what ways can phosphorus affect biotic and abiotic factors?

Phosphorus can affect biotic and abiotic factors from eutrophication. It is beneficial to plant life in the beginning, but eventually eutrophication causes the water to reach a point where no life in the water is possible because the algae that grows takes in the oxygen. It affects the water by making it lose too much of its oxygen for it to be livable for the biotic factors.