

EUTROPHICATION

What is it?

Eutrophication occurs when extra nutrients are added to a body of water and the ecosystem stops working normally. The algae and plant life in the body of water grows at a very fast rate or “blooms.” Algae also dies quickly which provides more resources for decomposers. These decomposers use oxygen in the process that breaks down dead algae, so as their populations grow, they begin to use up the oxygen dissolved in the water. Other living things in the water that require this oxygen begin to die off. Eventually the body of water cannot sustain life and it becomes a “dead” body of water.

Why does it happen?

Eutrophication is mainly caused by fertilizer runoff from intensive farming practices, and improper sewage treatment. As the need for food rises with the country’s population we become dependent on farming practices different than those that have been traditionally used. This includes using more fertilizer on our crops to increase production. Chemical fertilizers are full of soluble phosphates and nitrates that are carried away from the land during heavy rains and irrigation. The chemicals make their way into bodies of water where they cause algal and plant blooms. When sewage runs into waterways it makes the environment more favorable for decomposers, and the increased population of decomposers uses up the oxygen in the water even faster. This also leads to eutrophication.

How can it be prevented?

In order to prevent this from happening we need to be more careful about what we use to fertilize crops, how much we use, and how we handle our sewage. Natural fertilizers like manure decompose more slowly so the nutrients are not washed away quickly in runoff water like the chemical fertilizers. Treating sewage properly before it makes its way back into the water cycle will also reduce eutrophication events.