3.3 Aren't Nutrients A Good Thing?

Algae bloom on Table Rock Lake

Algae attached to rocks

Nutrients are essential to all plant and animal life. Nutrients have the same effect in water that they do on land – they make things grow. Unfortunately, excessive nutrients in water can make a lot of algae grow, which will disturb the natural balance of the riverine ecosystem. Natural sources of nutrients, like in-stream and streamside vegetation, are responsible for some of the nutrients in a waterway. These natural background levels of nutrients are fairly low in Ozark streams. High levels of nutrients like nitrogen (N) and phosphorus (P) are commonly found in storm-water runoff from both agricultural and urban environments.

What happens when there are too many nutrients in a stream?

The impact of elevated nutrient levels can be seen on the Kings River every summer. Each year thick mats of algae coat the streambed and float around the pools. The algae is not only slimy and ugly, it can also hurt many other species living in the stream. When the algae dies, its decay can use up a large percentage of the oxygen that is dissolved in the stream, leaving little for use by other aquatic creatures.

Impact of Excess Nutrients and Resulting Algal Growth

Fish	Decaying algae uses large amounts of oxygen and can lead to fish die-offs
Aquatic Insects	Algae forms mat on gravel bottom, reducing habitat diversity and leading to destruction of many organisms
Plants	Algal mats block sunlight and inhibit growth of other plants
Humans	Increased costs for water treatement. Reduced recreational opportunities