

## 3.2 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 bankside 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 stormwater 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 lower Kings River every summer. Each year on this section of the river, thick mats of algae coat the streambed and float around the calm pools. Landowners report that the algae blooms are now happening further upstream as well. The algae is not only slimy and ugly, it can also hurt many other species living in the stream.

### **Impact of Excess Nutrients and Resulting Algal Growth**

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