

3.2 The Dirt on Dirt

Good dirt is a bit of a rare commodity here in the Ozarks, which is all the more reason why we should try to keep the dirt on land and out of the streams. Sediment in our waterways is a result of both natural processes as well as human influences. Natural sediment loads are usually very small and can easily be processed by the stream.

Today, streams are receiving excessive amounts of sediment from many sources: upland and streambank erosion, gravel roads, construction sites, tilled fields, and many more. As stormwater moves over the land, it picks up loads of sediment, debris, nutrients, and anything else that isn't hanging on tight.

Sediment bonds easily with nutrients and other pollutants, carrying these particles into waterways every time it rains.

Phosphorus is a nutrient that bonds very strongly with sediment. One study found that approximately 95% of phosphorus in streams is attached to sediment particles. This means that if we can stop the dirt from moving during storms, we can also stop the nutrients.



Impact of Excess Sediment In Waterways

Fish	Reduced ability to feed, reduced tolerance to disease, smothering of eggs and fry. Loss of sensitive species like Smallmouth Bass
Aquatic Insects	Elimination of habitat, decreased food supply, decreased population diversity
Mussels	Reduced ability to feed—directly leads to die off
Plants	Decreased sunlight leads to decreased production
Humans	Reduced recreational opportunities as game fish disappear, downstream reservoirs get filled up