

The EFFECTS of FLOOD AND MUD on FISH

Wow, Pennsylvania had a lot of floods this past summer! And with the floods came muddy water. Muddy water can cause many problems for fish. Mud that you see in water is called silt. Silt is very small particles of loose soil that get washed off the land by heavy rains. When the water in a creek or river slows, the silt starts to settle. The silt that lands on the creek bottom and on the shores is called sediment. You can also find sediment on roads and in basements that have been flooded.

Silt is usually carried by a creek or river all the time. Sometimes there is a lot of silt and you see muddy water. Sometimes there is only a little silt carried by a river and you can't even see it. When there is a lot of silt in the water it damages fish's gills and makes it hard for them to breathe. Silt also carries bacteria. This bacteria can cause infections in fish's gills.

Silt can cause more problems for fish. When the silt settles out as sediment, it covers the bottom of a river. Fish find much of their food on the bottom of the river. If the sediment is covering their food, the fish can't get to it. The sediment can also suffocate the insects on the

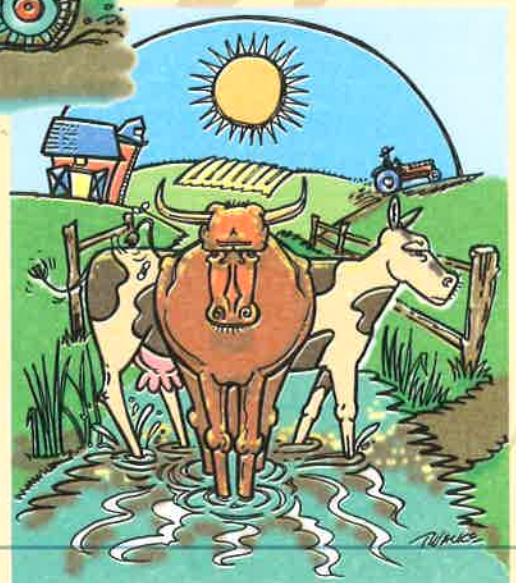
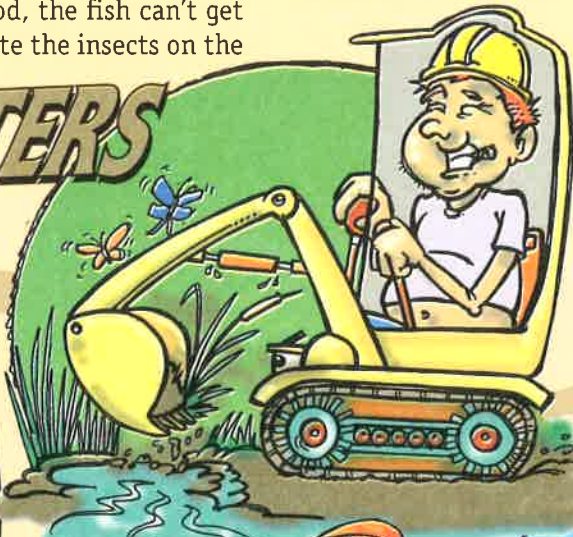
bottom that fish use as food. Sediment can smother fish eggs, too.

Well, what can we do about silt and sediment? We can try to keep silt out of the water. We can keep grass, trees and other plants growing in our yards. The roots of these plants help hold the soil in place when the hard rains come. Bare soil is washed away easier than covered soil. Trees and plants are also very important on the banks of streams and rivers.

A wetland can hold a lot of water and keep areas around it from flooding. When water gets held up in a wetland, it slows down. Sediment settles out of the water in the wetland instead of ending up in the stream.

Another thing we can do is to be on the watch for stream disturbances. A stream disturbance is something that changes a stream. These are things like farm animals walking on the shore and in a stream, bulldozers digging near a stream, and dirt bike trails going through a stream. All of these things loosen the soil. When the hard rains come, this soil is very easily washed into the stream.

SILTSTARTERS



As described above, stream disturbances can loosen the soil. It washes into streams, causing sediment and silt.

Shown here are four different kinds of "siltstarters." Describe what's happening in each scene and what could be done to avoid being a "siltstarter."