A Fish Story

Imagine a river as it meanders through the countryside, past the farmer's field, widening into a lake, but narrowing again as it passes through the city. In this river lives a fish. (Put a fish in the clear blue water in the plastic container.)

The fish swims down river past an eroding bank. When it rains what will happen to the bank? What if it rains a great deal? (Put soil into the water.)

What does this do to the fish?

Suppose part of the soil eroding into the water came from some farmland. The farmer has just put fertilizer on the field. Instead of staying on the field and helping the crops, the fertilizer rides "piggyback" on the eroding soil and goes into the river. What effect will the fertilizer have on the plants in the river? If the plants grow too abundantly and too fast the river can't continually support them and supply the necessary nutrients. They die, fall to the bottom, and start to decompose. Decomposing things use oxygen. What else in the river needs oxygen?

What does this do to the fish?

Farm fields aren't the only source of fertilizer in a river. Homes may also be a source. Where the river has widened into a lake several families have built their homes. Perhaps their septic tanks drain into the water or some of the fertilizer they've put on their lawns has washed into the water.

What does this do to the fish?

As the lake narrows back into a river, our fish continues downstream past the city. Even though the city people don't pollute the water directly, what they do at their own homes or subdivision can affect the quality of the river's water. Have you ever seen a car leaking oil? Where does the rain wash this oil? (Put oil into the water.)

What does this do to the fish?

In the winter what do we put on our roads to make it easier to drive? (Put salt into the water.) When you eat or drink something salty, what do you do? Can this fish get fresh water to drink?

What does this do to the fish?

As the river leaves the city there are several factories that are located along it. Although regulations are strict, perhaps they are still dumping some chemicals, detergent, or heated water into the water. (Put detergent into the water.)

What does this do to the fish?

The wastewater treatment plant for the city is also located along this section of the river. Rules aren't quite as strict as they are for factories and perhaps the treatment facilities aren't as thorough as they could be. The plant does its best but still has to put some polluted water into the river. The river has a large volume of water though and the plant only puts a small amount of pollution into it. It shouldn't cause too much of a problem, right? It would be like putting 2 drops of this food coloring into this jar of water. (Stir it.)

What does this do to the fish?

The End

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