2012 Horry Soil and Water Conservation District Essay Contest

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Our world is 70.8% water. A human baby is 78% water. A grown human is 62% water. Clean water is essential to humanity. We cannot make more water than what we already have on Earth. Therefore, we need to keep it clean at every point in the global water cycle.

The water cycle starts when water is evaporated from water sources, such as rivers, lakes, streams, and oceans. The evaporated water rises into the atmosphere to form clouds. Then the water particles in the clouds condense and fall to the ground in the form of precipitation. When the droplets land, they go back to Earth's water sources and keep going through the cycle. At any point in this cycle, the water is susceptible to pollution and contaminants. For example, industrial waste, such as waste from manufacturing, may include heavy metals like cadmium and lead which are harmful to animals and humans. Even household waste, since it is literally flushed out of the house with water, needs to be treated with care so that it does not breach our clean water sources. There is also just careless waste, such as plastic bottles, candy wrappers, cigarettes, and plastic toys left on beaches after a hot day.

One way that pollution occurs is when people leave untreated waste outside. At this point, the water cycle will spread the pollution through the atmosphere, rain, or runoff. Now the pollution is able to accumulate, grow (microorganisms), and spread. As mentioned above, the water cycle will bring these pollutants into rivers, streams, and other water sources that will eventually reach oceans. This can be very hazardous.

Pollution can affect natural resources in many ways. For example, pollution can hurt soil through acid rain. Exhaust from cars rises into the atmosphere, so when it rains the droplets fall through the exhaust and "acid" rain saturates the soil, making it unsuitable

for growing crops. Another way pollution can hurt natural resources is when it enters our water supply. Acid rain also rains into reservoirs. The reservoirs still clean the water, but sometimes pollutants still affect the water supply. Water also provides a cheap and easy place for industries to dispose of waste. Eutrophication can also occur in polluted water. Eutrophication is when nitrogen and phosphorus are separated from household or industrial pollution. Then these chemicals when combined create a toxic environment where deadly microorganisms can prosper. These microorganisms will eat the oxygen out of the water, so when fish try to get oxygen from the depleted water, there will be none. The lack of oxygen in the water, or hypoxia, endangers the fish which will fight for survival or die. The lack of oxygen creates a "dead zone." One of these dead zones exists right off the coast of Myrtle Beach. Pollution also affects life around the water. If an animal drinks water from a polluted pond, it can get ill and/or die. This is why we need to stop pollution once and for all.

Pollution cycle (like the global water cycle) is filled with cause and effect relationships. Rivers flow into oceans. So if we contaminate rivers, the pollution will flow into oceans and cause additional harm. The water cycle moves these pollutants ruining much on its path and taking the lives of many vulnerable sea creatures. For example, a man on a run throws away his plastic water bottle and it gets blown into a river. Chemicals from the plastic seep into the water and contaminate the water. Fish in the water also become contaminated. This harms our food supply, too, not to mention other fish. Then the food chain comes into play. Other bigger fish will eat this fish, perhaps swim somewhere else, and infect another marine ecosystem.

Oil spills also contaminate water, but the damage is usually much more extensive, even killing birds and other animals on land. The oil coats the fish and coastal birds. The oil in the water decomposes the scales, feathers, and skin. Even worse it causes deformities in future generations like eyeless shrimp, sick lobsters, and fish with sore-ridden flesh. This is our future food supply!

Our world is 70.8% water. We need to protect it, it is all we have. The better care we take in preserving our planet's resources today, the better our lives will be tomorrow.

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