Wastewater

What You Need to Know

Water is as important as the air we breathe. Stop and think for a minute of five ways that we use water. That was easy wasn't it? I am sure you thought about drinking, bathing; washing, housecleaning, watering plants, cooking, but did you think about manufacturing food, medicines and cosmetics, running businesses such as restaurants and hotels; caring for the sick in hospitals, conducting tests in laboratories, cooling engines in cars and power plants? You see water is a strand that keeps our life as we know it together! Yet as much as we need and use water, when we are done using it for whatever purpose we wish, it is no longer as clean as when we first got it from the tap.

Waste Water

Since we use a lot of water, then of course we also produce a lot of unclean or "waste-water" afterwards. But how do we treat waste water and is it necessary to treat it? The answer is yes – it is absolutely necessary to treat waste water. If treated correctly, we can all be safe from the ills associated with untreated water.

As we may have already realised, wastewater is the water we dispose of from our homes, offices and industries. It comes from toilets, sinks, showers, washing machines and industrial processes. Wastewater also includes storm runoff - rain water that collects harmful substances as it washes off roads, parking lots, and rooftops and can be harmful to our rivers.

Treating wastewater is important to protect our health and that of the natural environment. If wastewater is untreated and it is allowed to flow into rivers this can affect both people and the environment.

Effects of Untreated Wastewater

Impacts Fisheries

Few fish can grow and breed in "dirty" or polluted water. Untreated wastewater entering rivers and canals can cause

fish to die or become low in numbers because their eggs cannot hatch.

Plants also need clean water to survive. Harsh chemicals in wastewater can kill plants and as a result lower the amount of oxygen in water – since plants release oxygen during photosynthesis. Many fish also eat algae – if these plants die then fish would have less food to eat. Moreover, pollution from wastewater could have long-term effects – last for a long time.

Reduced plant and animal life in rivers and creeks would also affect food availability to people who depend on this source of protein. Also, it would affect livelihoods for people who catch and sell fish. People who fish for sport or recreation would also not be able to enjoy this pastime.

Impacts Wildlife Habitats

Our rivers and oceans are full of life that depends on shorelines, mangroves and marshes. These are critical habitats for hundreds of species of fish and other aquatic life. Migratory water birds use the areas for resting and feeding. Pollution of rivers can harm fish and wildlife populations.

Impacts Recreation and Quality of Life

The ocean and rivers provide many recreational activities such as swimming, fishing, and boating. Many people around the world live along rivers because of the access to resources and quality of life they offer. When rivers are polluted this may result in beach closures and restriction on recreational water use. In some parts of the world, where beaches and the ocean are a big part of tourism, the economy of countries could be seriously affected.

Impacts Human Health

If not properly treated, wastewater can carry many disease causing bacteria, which can result in outbreaks of waterborne diseases. Also, contaminated fish from polluted waters can be harmful if consumed.

Treating Wastewater

Wastewater must be properly treated in order to avoid the possible consequences of its release into the environment. Depending on the origin

of the wastewater, treatments can vary from simple to complex and may use natural or artificial methods. In most modern societies wastewater is channelled through a sewerage system to be treated at sewage plants. However, in less advanced societies there can be a mix of methods, such as sewage systems, septic tanks, or natural systems that use plants to utilise and breakdown substances found wastewater.

Look out for next week's article when we will take a closer look at some methods of treating waste water.

You can share your ideas and questions by sending letters to: "Our Earth, Our Environment", C/O EIT Division, Environmental Protection Agency, Ganges Street, Sophia, GEORGETOWN; or email us at eit.epaguyana@gmail.com.