

Water and Waste Management Ecological committee

A) Water Waste Management

What is the problem nowadays?

First of all, water is the main resource and it is the key to everything, from agriculture to principal resource that human beings need. Therefore, if water is wasted, everything will fall apart.

Water waste management is trying to handle the waste water and make it suitable and recycle it into a water system or to be disposed of in an environmentally-conscious manner. Waste of water is one of the largest problems that most major cities in the world suffer, principally metropolis. And with an overflow population causing trash that leads to the pollution of water, it causes a breaking point. People are trying to use mechanical and biological processes to manage the waste of water and to get rid of undesirable particulate matter but there is still no concrete resolution or an actual plan to make people aware of the importance of water.

A substantial problem in modern management has arisen as existing sewage systems are filled close to capacity. Many modern cities allow runoff from rainstorms to filter directly into the sewage system, which adds a stress to an already stretched system. As a result, during particularly heavy storms or storms that last for long periods of time, the rainwater may cause the sewage system to exceed its capacity, creating what is called a combined sewer overflow, which can be a mess both within the cities and on the coastline.

Sewage in a major city is generally treated at a central facility, where it is sent by an extensive series of pipes and pumps. Most management systems have three distinct tiers, referred to simply as primary, secondary, and tertiary treatments. Primary treatment involves separating solids out of the water, generally through mechanical means such as settling and filtration. Secondary treatment involves using biological means, such as micro-organisms, to bring dissolved material out of solution and into a solid form. Tertiary treatment then involves removing these solids from the water, and treating the resulting water to purify it, generally through microfiltration or chemical additives.

On an individual level, water waste management may be used by households that are not on a sewage system or by households that wish to reduce the amount of waste it pumps into a sewage system. In recent years, many regions have allowed for the separation of wastewater into grey water and black water. Grey water is the relatively uncontaminated water that results from activities like doing laundry, showering, or washing dishes. Black water, on the other hand, is sewage from toilet systems. While black water must, by law in most regions, be either sent into a sewage system or into a leach field, grey water is less regulated. Many modern homes use basic filtration systems to make it suitable for a number of water-intensive activities that do not

require potable water. For example, people may use grey water to water their gardens or landscaping, or to refill the cisterns on toilets for flushing. This is a simple and effective form of water waste management that can save large amounts of water annually, as well as reducing the workload of sewage systems.

- To protect the environment, some have mandated special ponds, called drainage ponds, to collect the water and keep it separate from other water sources. This water waste is not meant to be treated, but may become cleaner over time due to natural processes.
- This process of operating a water waste plant onsite makes it possible to recycle the water, and in some cases also to reduce the waste into some sort of useful product.

B) Waste management

Talking about the incorrect use of water that leads to water pollution, this leads also to the loss of ecosystems which leads to loss of species which leads to loss of flora, and so on.

When we discard food, plastic, paper and everything else, it must go somewhere, but often that somewhere is a place we do not know and do not think about. And actually somewhere is everywhere.

Trash affects the whole planet and waste goes into a landfill, or to a recycling facility plus the majority of the trash is not actually being recycled.

Unfortunately, even though some stuff is going to landfills or recycling, a majority of our waste ends up spreading itself around the globe, either by being transported by wind, water or humans; by breaking down into smaller parts, or by degrading into its chemical components. And these dispersal methods are damaging the health of the animals, people and ecosystems on this planet.

Some of the waste is accidental, like when there is a hurricane that damages a city and sends trash across the ocean, which is what happened with the 2011 Japanese earthquake for example, a tsunami disaster, or products falling off a shipping container in the middle of the ocean. But much of the problem lies in a corporate culture that is not responsible for waste.

When companies make products, they do not think about the damage they cause when they send all the waste to the ocean or the underground. For example, there are hundreds of chemicals used in the production of computers, mattresses, shoes, fishing nets and plastic water bottles, but once the company produces the product and sends it off for sale, they do not feel responsible any more.

This has led companies to create products with untested chemicals with little concern for the outcome of the chemical body burden. Many of these chemicals are considered endocrine disruptors, which can impair reproduction by mimicking or changing hormonal activity in animals and humans. Additionally, most products, including their chemical components, are made within a framework of planned obsolescence,

meaning that it is designed for the dump, with little concern as to how it might affect the environment.

All this leads to Dangers to the Animal Kingdom, plus in the first decade of this century, we produced more plastic than all the plastic in history up to the year 2000. And every year, billions of pounds of plastic end up in the world's oceans. And plastics left in an ecosystem are ingested by birds, fish and other animals. Plastic in their bodies causes irreparable harm, but there are also long-term effects to the animals higher on the food chain because of the chemical makeup of the plastics.

Most of the products we consume in our daily life are made with petrochemical (fossil fuel-based) plastics, which leech chemicals into the environment through irresponsible disposal or accidental means, like hurricanes. In marine environments, the plastics actually absorb dangerous pollutants like PCBs, DDT and PAH from the surrounding waters, meaning animals that ingest the plastics get a double dose of chemical ingredients.

The chemicals in plastics are well-documented and studied to have caused proven negative impacts on animal and human bodies.

All chemicals are absorbed by any animal that ingests plastic. These animals are then eaten by other higher food chain animals or by humans. While many of the most dangerous chemicals have been driven out of use or production, they are still present in the marine environments, and thus present in the bodies of animals including humans.