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[Business](#), [Management](#)



Causal Analysis Essay: Water Pollution Water pollution is a growing problem in the world today and has many causes.

Marine dumping, leakage from landfills, industrial waste, and burning fossil fuels just to name a few. With the growing population and lax regulations on waste management, the environmental damage is getting out of hand. If nothing is done to address the causes of water pollution the water supplies, livestock and farmlands are not the only detrimental damages that will be sustained. Much of the marine pollution is admittedly accidental, some by natural disasters or products falling off of a shipping container. According to M. Casey with NBC News (2005, December, 19) " The 2004 tsunami created enough trash in the Indonesian city of Banda Aceh alone to make a three-story-high pile, covering 30 football fields. In Sri Lanka, the volume of waste dumped in lagoons and waterways is more than twice what generated by the September 11th terrorist attacks, by U. N.

estimates." The Great Pacific Garbage Patch is just one of the visible side effects today from waste being dumped in the ocean. Found by Charles Moore on a trans-pacific sailing voyage, The Pacific Garbage Patch spans hundreds of miles in the middle of the Pacific Ocean containing an acumination of plastic, fishing lines, land debris, and other waste.

There are multiple garbage patches across the ocean. Distributed over so much of the ocean, the billions of pounds of trash is impossible to collect and contains several different types of trash. Varied densities, the depth in which it lies and micro-plastic, which is too small to collect and never fully degrades, are just a few hurdles conservations today face when attempting

to remove waste from the ocean today. According to the EPA (A. Bertoli, 2014) " Every piece of plastic ever made is still in existence today." The Center for Biological Diversity released a shocking fact; that whether in the ocean or in other natural environments, plastics are ingested by birds, fish, and other animals. Plastic consumed by animals causes permanent damage.

The chemicals that can be found in plastics have been comprehensively researched and have confirmed negative effects on animals and humans alike. According to the Breast Cancer Fund Listed below are just a few of them: Bisphenol A (BPA)? Phthalates ? Vinyl chloride ? Dioxin ? Styrene According to Wikipedia (September, 2017) " Leakage from landfills is commonly referred to as leachate. A leachate is any liquid that, in the course of passing through matter, extracts soluble or suspended solids, or any other component of the material through which it has passed. Leachate is a widely used term in the environmental sciences where it has the specific meaning of a liquid that has dissolved or entrained environmentally harmful substances that may then enter the environment. It is most commonly used in the context of land-filling of putrescible or industrial waste.

" The toxins frequently found in leachate can include methane, carbon dioxide, organic acids, alcohols, aldehydes, and more. There are different technologies available to combat landfill leachate. One is biological treatment, although leachate treatment is challenging due to the varying concentrations of dissolved solids, colloidal organics, heavy metals, and xenobiotics. Biologically treating landfills is a process using several different layers of filters to remove the different elements from the waste-water.

Second, is a chemical-physical process, this process uses activated carbon precipitation, absorption, and ion exchange processes. Massive amounts of toxic contaminants which can cause water pollution and other environmental damage are produced by industrial waste.

Lead, mercury, Sulphur, asbestos, and nitrates are just a few of the pollutants found in industrial waste and with the lax regulations enforced upon industries to properly dispose of their waste, they often drain waste into the water systems which will eventually lead to the ocean. This process has the potential to change the color and composition of the water by raising the number of minerals. This is also known as eutrophication and poses a threat to water organisms. Unplanned industrial growth, lack of policies to control pollution and using outdated methods or technologies still being used are just some of the causes of water pollution from industrial waste. The burning of fossil fuels into the atmosphere can also cause water pollution by expelling ash and toxic chemicals which then mixes with water vapor to produce acidic rain. This rain can then pollute waterways, farmlands, and livestock. Motor vehicles, ships, airplanes and large industrial operations such as incinerators and refineries are some of the major sources of nitrogen oxide emissions. Another nitrogen compound is ammonia, predominantly used agriculturally is emitted into the air adding to the toxic cocktail.

The EPA (March 2017) found that the presence of excess nitrogen in the atmosphere in the form of nitrogen oxides or ammonia is deposited back onto land, where it washes into nearby water bodies. These excess nutrients contribute to pollution, harmful algal blooms, and oxygen-deprived aquatic

zones. Excess ammonia and low pH in these areas are toxic to aquatic organisms and affect their survival. Water pollution is a growing problem in the world today because marine dumping is causing the ocean waters to develop large trash sites which are unable to be reversed, leading to permanent harm coming to the animals reliant on it. Leakage from landfills is leaching into the waterways from industrial waste, and burning fossil fuels is causing acid rain to form and fall onto the farmlands, water, and damaging aquatic zones. Unknown Author for the Environmental Protection Agency (2017, March). The Sources and Solutions: Fossil Fuels.

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