

Water Pollution and the Grand River

Water pollution occurs when bodies of water are contaminated either purposefully or accidentally by pollutants, human and industrial wastes, fertilizers, or pesticides. These bodies of water include lakes, rivers, oceans, above ground water, and underground water. The pollution intensifies if there is no treatment following the original pollution to remove the contaminating and polluting compounds that have infiltrated the water. This pollution affects everyone and will affect everyone for generations to come. The pollution disturbs the natural ecosystems and can destroy the lives and habitats of the plants and organisms living in the bodies of water. This leads to completely different ecological environments for the living things that survive the pollution and their surrounding habitats.

When water can no longer be safely consumed by humans or support the life of fish, then water is considered to be polluted. According to the EPA, about 44 percent of assessed river stream miles are too polluted to be considered safe for swimming or fishing. Bacteria, Mercury, nitrogen, and dissolved oxygen are some of the many chemicals that contaminate the water. Many fish also die from these chemicals because their gills become clogged and they cannot breathe. Mass graves in rivers and lakes further enhances the problem. Agricultural runoff from farms also pollutes many bodies of water and is a major problem that needs to be addressed if further contamination is going to be prevented.¹

Water pollution also has a negative impact that directly impacts the lives of humans besides the destruction of many visible natural environment. Water pollution is a major cause of death and spread of disease across the world. Water contamination also leads to pollution when a change in appearance, usually cloudiness of water, can be detected. A rise in average temperature can be a side effect of water pollution that further changes the surrounding ecosystem and is an unintended symptom of water contamination.

The preservation of fresh water is important everywhere but it is especially important in the state of Michigan. Michigan is surrounded by the Great Lakes and the citizens of the state play and will play a key role in the future sustainability of the Great Lakes and surrounding rivers. A significant portion of the remaining fresh water of the entire world is contained within the Great Lakes and the preservation of that remaining fresh water may be the key to the survival of the human race. If all the fresh water is contaminated and polluted to a point that it will not be able to be cleaned down the road, then subsequent generations will suffer with no drinkable freshwater on earth. The resulting consequence could be dire barring new technologies.

The Grand River in Grand Rapids, Michigan is a location that has been affected by water pollution in the past and is in the process of being cleaned up by environmentalist and concerned citizens of Michigan. In past decades, Grand Rapids was known as the Furniture city and had industries almost entirely based on manufacturing. The results were a city that became very polluted and more specifically the Grand River became contaminated after many toxics and waste from factories were constantly dumped into it.² This was very problematic because the Grand River ran through the heart of the city and also flowed through the outskirts of the city. The river was so polluted that the entire city could not fish, swim, or use it for any other recreational purpose. A recent expanded cleanup effort has the Grand River as clean as it has been in the last one hundred years. This is a far cry from the sewer it was predicted to be in 2005.³

¹ United States Environmental Protection Agency, "Water Quality Facts," EPA, Accessed February 17, 2014, <http://water.epa.gov/aboutow/owow/waterqualityfacts.cfm>.

² Jeff Alexander, "Grand River Series: Waterway's history is one of ruin and recovery," Muskegon Chronicle, July 11, 2010, http://www.mlive.com/outdoors/index.ssf/2010/07/grand_river_series_waterways_h.html.

³ Brian McVicar, "Mounds of trash collected Saturday in annual Grand River cleanup," MLIVE, September 14, 2013, http://www.mlive.com/news/grand-rapids/index.ssf/2013/09/grand_river_cleanup_results_in.html.