

The Main Causes of Water Pollution and its Solution

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Introduction to Water Pollution

Beginning with the basics, [water pollution](#) is well-defined as a form of water that is “adversely affected due to the addition of large amounts of materials.” It means that when a form of water is insufficient for its novel envisioned determination, it is thought of as “polluted.” There are several methods for the containment of water. One case is a straight type of contamination, for example spilling of oil. When the Exxon Valdez Company spilt out tens of thousands of barrels of oil into the ocean, it demolished the entire living organisms in that place, in addition to killing off numerous species of native marine wildlife. A further direct method of water pollution is littering. This is a very noticeable and avoidable difficulty that could clog up the water paths and obstruct the life of animals and plants. In extremely intense places, for example, metropolises, drain backup could cause main harm to the federal budgets, city growths, and the health of humans. Over-flowing of the sewage pipe could be triggered by more rain falling or poor sanitation systems, but the most detrimental reason is the violation of sewage laws by humans. This paper will highlight the main causes of water pollution and suggest some advice to [minimize](#) water pollution.

Scale of Water Pollution in the United States

In the previous three years, nearly 9,400 out of 25,000 manure structures have described the traces of un-preserved human waste, compounds, and other harmful resources in rivers, lakes, and additional watercourses, which could source thoughtful damage to the atmosphere and the health of adjacent societies. However, not all places experience similar matters. Different areas of the U.S are affecting with many water glitches. The west-coast is presently investigating the finest usages of the partial sum of the water-sources, although the eastern-coast is examining the stormwater management and remains overflow(Association et al.).

Industrial and Household Sources of Pollution

Water pollution is a big problem, and it is emerging faster in the US and other parts of the World. Industries are discarding their poisonous wastes into the lakes and river all over in the United States. Even individuals in their homes contribute to rising problematic in the conducts they might not be aware. It is not just the world’s marine that is being contaminated but also the areas like the River Ohio or also the Great Lakes are being contaminated every day. The water pollution problem could be

resolved in easier methods like seeing what a person do in their home that might disturb his waterways. The compounds that are being used can be poisonous and needed to distinguish how to dispose of them correctly. Likewise, we might assist the problem by visiting and cleaning the previously severely contaminated waterways and lakes in our states. There are numerous another way out to this problem but no matter what is that we could assist to stop abolishing our watercourses if we just go and takes humble means to take care of the water. Water pollution and its containment is a problem that disturbs everybody on the earth not only in the U.S. Several persons are not as pretentious as the persons that are living adjacent to the watercourses but cleaning the United States Rivers, and lakes must be a top importance to everybody. We all want water to live and contaminating, or pollution of the waters with our garbage and insecticides are just creating it firmer for us to admission this dynamic reserve that we want. The answers that I have linked about previous are what we all are required to ensure if we need to save our water schemes throughout the United States(Novotny).

Importance and Scarcity of Water

Water is a critical basis which is used in numerous places to maintenance our habits of life. The usage of water varies from elementary domestic needs to generating of power. In all over the world, water is coming out to be ever scarcer, and the water availability is being more polluted by different contaminants that are triggering death and sickness. Many Nations are facing droughts disturbing the water source required to sustain irrigations, thermo-electric electricity, and public-supply. The meaning of water pollution is the outcome when so many ingredients are present, therefore making the water unhealthy for its envisioned determination, which might be consumption, bathing or other home-based usage, manufacturing procedures or regeneration determinations for example fishing, swimming or boating. On the whole, not only is it disturbing the homes, but it also disturbs the nearby places also. Water pollution is one of the biggest threats to the human evolution and must be a worldwide matter prohibited by most of the nations. Initially, water pollution has a huge effect on several families. Households in all over the world use water for cookery, washing, cleaning, and in various areas to cultivate the crops. The matter here is if the water being used is harmless from contamination or not. There are several methods in which water turn out to be contaminated. Several pollutions essentially come from home manure that is discharged into the rivers, lakes, and streams. A method of categorizing these wastes that are discovered in water is by if natural methods taint them. The cause the streams, lakes, and rivers are contaminated with the home manure is since they could be cleansed with the usage of oxygen present in the water. In certain circumstances the water is not completely refined from contaminants, degradable trash, leaving contaminants to move back into their houses. This polluted water is then being used for bathing purposes or even for drinking(Trivedy and Goel).

Global Water Challenges

Water is life. Increasing pressure on the water resources from the populace and financial development, climatic modification, contamination, and other trials has main effects on our communal, financial, and ecological happiness. Several of our most significant aquifers are being overdriven, triggering extensive failures in the level of groundwater. Main rivers that include the River Colorado in the west of the U.S and the River Yellow in China. No more reaching the ocean in most of the years. The drought in California is worsening the big and rising gap amongst the usage of water by the states and the availability of the water supply. More than half of the earth's swamps have been vanished due to growth. The Earth's water is progressively coming out to be tainted in quality, intimidating the health of individuals and ecologies and upsurging the price of treatment. Around 780 million people across the globe still lack the admittance to the pure and clean water, and thousands die every day for the absence of it(Sartor et al.).

The Water problems of the world stem from our disappointment to see the simple human requirements, unsuccessful or in-appropriate organizations and organization, and our incapability to stable the human desires with the requirements of the normal world. These sicknesses are entrenched in an extravagant usage of water, considered by the week management schemes, indecorous financial inducements, underinvestment, failing to relate current skills, and an old-fashioned attitude absorbed nearly solely on emerging new goods to the barring of the "soft-path" preservation and competence events(Association).

The Flint Water Crisis

Flint Michigan's water crisis is a nationwide crisis of corroding quantity. For around two years, the residents have been unceasingly exposed to the ill based effects of toxic waters curtailing from a current alteration over in source. Till around April 2014, Flint had been completely dependent on the water sources from Huron Lake bought over Detroit (Foley). Because of the significance of water and food security, strategies are made to make a new local water scheme that can bring the tap water from the Huron Lake were then appointed to set-up a water collecting system that can carry it to Flint at an improved value was then started. Although the well-meaning purposes. The plan's two-year postponement triggered a meaningfully unforeseen turns of proceedings when the provisional alternative water reserves, the River Flint, was founded to be extremely polluted. (Hanna-Attisha et al.)

The dis-acceptable nature of the water was understood closely once it was driven from the river. The list of grievances comprised of the water felt, like a metallic, felt like metal, and appeared funny. Inhabitants of flint drew out from their tap not spotless and the fresh water which is practiced nearly generally in the whole of United States however huge containers of brownish and vulgar runny that might even be dubious to swim in. Local Bethany Hazard conditions that when she filled-up her water

from the spout, it came out not only brown but sniffing of a drain(Ganim and Tran).

The River himself has been a basis of substantial contamination with a dead body that is found in the waterway as well as an abandoned vehicle in addition to the unusually higher level of copper and tri-halo-methane. The meager point, though, that these answers were only unintentionally seeped under-scores an absence of anxiety for the care of Flint's inhabitants. The 1st trials on the water definite that certainly, something was fairly incorrect. The Environmental Protection Agency (the agency which is answerable for imposing ecological plans in the United States) for example, seeped in a memorandum that in the water were traced quantities of the E. Coli bacteria, a thoughtful health threat for persons of all eternities (Foley unlucky measurement of the Flint Michigan water disaster, the financial one(Commission)).

The water catastrophe in Flint Michigan is of widespread extents. At the end of 2015, the state starts realizing the worries they were so direly-in. Tests were directed on the aggrieved inhabitants to realize that certainly, many people with unfavorably ill leads in the blood which would probably outcome in eternal and long-lasting health based difficulties, particularly in children who are further vulnerable to poisons and toxins. The list of sicknesses from the polluted water resource is shocking and warning. Hair loss, Rashes, and several other health illnesses deliver a most unwanted explanation of the price not lonely of ecological destruction but deficiency also.

Major Causes of Water Pollution

There are many causes of water pollution. Few are listed below

- The upsurge in manures to produce further food. These outcomes in an upsurge in nutrients (phosphates and nitrates) in the water which sources improved plant progression. When this plant stuff decreases and declines the bacteria uses oxygen from the water. This dropping of the level of oxygen outcomes in the demise of other water-life that requires oxygen to live, for example, fish and aquatic life. This procedure is known eutrophication; litter, which sources sickness and it has an undesirable visual effect(Heath).
- Clearing the land for farming and city development mostly results to the [water pollution](#). When the soil is exposed of its defensive foliage, it turns out to be prone to the soil corrosion. This hints to an upsurge in the darkness of the water which could further cause the following:
 1. It could block the fish's gills
 2. Lowest dwelling shrubberies and plants could not survive photosynthesis as the rays of sun could spread to them
 3. There is a growth in the spread of sickness as microorganisms and viruses use the particles of soil as a mode of transport.
- Blocking of rivers could have an influence on the water in the following ways:
- Water that is flowing out from the dams

- Has compact postponed substances as a huge quantity settles to the bottom side of the dams, is exhausted of nutrients; and is mostly more saline with harmful effects on downstream fisheries and agriculture.
- Improved eutrophication might influence outcome because of the water outlay for a longer time in the dam.
- There is also more vaporization in the dams, particularly those which have a bigger surface area, for example, the Vaal Dam.
- Increased soil-erosion because of the physical trouble of the soil and vegetation because of plugging, logging, overgrazing, and building of the road.
- This disturbs the darkness and the quantity of minerals and salts in water.
- Growth of nutrients because of fertilizers and excreta, which contributes perturbing quantities of phosphates and nitrates and to the water supplies (this could cause eutrophication);
- The excessive use of the pesticide.
- As the population of human upsurge, further power is obligatory for the human doings for example lighting, cooking, Most of the energy in the United States originates from the burning of coal in power plants and outcomes in significantly enlarged releases of nitrogen oxides and sulfur and the environment. These gases are the key source of acid-rain, which has an undesirable influence on the normal atmosphere and the health of humans(Schwarzenbach et al.).
- Unintentional water contamination could arise from numerous bases (for example burst pipelines and containers, significant leaks, fires and oil spilling) and could cause variable grades of injuries; it depends on the amount, poisonousness and perseverance of the contaminant, and the extent and flexibility of the water form.
- The materials that originate water pollution could be alienated into two key sets – chemicals and germs. Germs are minor creatures that source sicknesses and diseases for example bilharzia, malaria and cholera and compounds are toxins, which are mostly created by the industries.
- Natural compounds are founded all over the place in the atmosphere. Inappropriately, several of the compounds that are made by the industries are not found certainly in the atmosphere or are merely founded in very lesser quantity. Several industrial procedures made many kinds of goods and waste-products. Inappropriately several industries release their wasted bi-products straightly into the rivers or let them leaked into the ground-water. These compounds are toxic or poisonous to people, animals, and plants(Kampa and Castanas).

Life is eventually around selections and so is contamination. We could live with manure scattered coasts, deceased rivers, and with the fishes that are very toxic to eat. Or we could make efforts together to make the environment livable and clean so that the animals, plants, and people who depend on it continue to be healthy. We could go distinct acts to help to lessen the water-pollution, for instance, by using ecologically friendly cleaners, and by not pouring the oil down into the drains or in the oceans or river, plummeting insecticides and pesticides, and the like. We could take some community-based actions also, by serving out on beach cleaning or the garbage picking to preserve

our oceans and rivers that are slightly bit cleaned. And we could take several actions as many nations and continents to make different rules and regulations that would make water pollution much firmer and makes the world less polluted. Making efforts together, we could make water pollution a smaller of a problem and the makes the world a much better place to live for every living organism.

Works Cited

Association, American Public Health, et al. *Standard Methods for the Examination of Water and Wastewater*. American Public Health Association., 1913.

—. "Water Pollution Control Federation. 1989." *Standard Methods for the Examination of Water and Wastewater*, vol. 17, 1990.

Commission, Michigan Civil Rights. "The Flint Water Crisis: Systemic Racism through the Lens of Flint." *Retrieved February*, vol. 20, 2017, p. 2017.

Ganim, Sara, and Linh Tran. "How Tap Water Became Toxic in Flint, Michigan." *Retrieved From*, 2016.

Hanna-Attisha, Mona, et al. "Elevated Blood Lead Levels in Children Associated with the Flint Drinking Water Crisis: A Spatial Analysis of Risk and Public Health Response." *American Journal of Public Health*, vol. 106, no. 2, 2016, pp. 283-90.

Heath, Alan G. *Water Pollution and Fish Physiology*. CRC Press, 1995.

Kampa, Marilena, and Elias Castanas. "Human Health Effects of Air Pollution." *Environmental Pollution*, vol. 151, no. 2, 2008, pp. 362-67.

Novotny, Vladimir. *Water Quality: Prevention, Identification, and Management of Diffuse Pollution*. Van Nostrand-Reinhold Publishers, 1994.

Sartor, James D., et al. "Water Pollution Aspects of Street Surface Contaminants." *Journal (Water Pollution Control Federation)*, 1974, pp. 458-67.

Schwarzenbach, René P., et al. "Global Water Pollution and Human Health." *Annual Review of Environment and Resources*, vol. 35, 2010, pp. 109-36.

Trivedy, R. K., and P. K. Goel. *Chemical and Biological Methods for Water Pollution Studies*. Environmental publications, 1984.