

The walkerton water contamination tragedy essay examples

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Introduction

Water is a very important commodity for the survival of humankind. The hydrological cycle aids in availing water to the earth. It begins when water in the streams, lakes or oceans is heated by the sun and turns into water vapor that penetrates into the air. Also, when plants transpire, water enters the air. The water vapor then condenses to form clouds which, eventually, through precipitation, fall back onto the earth's surface in the form of snow, sleet or rain. This process is made possible when the temperature of the air drops due to air moving up the mountain's side or the contact of a mass of cold air with a mass of warm air. The rain either evaporates back into the air or becomes surface water with some sinking to form aquifers, underground reservoirs (Cech, 150). In Walkerton, Ontario, Escherichia coli (E. Coli) intestinal bacteria contaminated the supply of drinking water in May, 2000. As such, over 2,300 out of almost 5000 residents fell ill with seven being confirmed dead (Deadly water, 2000).

Different sources of water can be contaminated in different ways, such as acid rain, fertilizers, salt and even minerals. In Walkerton, a biological contamination of drinking water was experienced. After the water in lakes and oceans is converted into water vapor through the heat from the sun, the hydrological cycle takes place. The water condenses to form clouds and finally precipitates in the form of rain. Allegedly, Walkerton experienced a heavy and stormy rainfall that caused a town well to be filled with cattle manure that was swept in the process. This event led to the contamination of the drinking water with a deadly intestinal bacterium, E. Coli. Despite the measure applied to safeguard the drinking water before being supplied to

the residents, the inherent faults saw the systems being undefeated to eliminate the bacteria. The provincial government of Ontario immediately sets up an inquiry committee into the circumstances that surrounded the outbreak. For a period of six months, the residents of Walkerton still relied on either treated tap water or bottled water while others went to bathe in relatives' and friends' houses in the neighboring communities (Peel Water Story, 2001).

The fact that there exist many old wells that are abandoned and uncovered in Walkerton increased the overall impact of the contamination to the environment. Residents are discouraged by the high cost of plugging and maintaining a good and hence the desertion of open wells. Its upon the provincial officials to be updated on the number of wells being plugged and make sure the owners of the wells are responsible for the maintenance. However, the Environmental Ministry did not device adequate inspection programs to identify the wells that fall out of use (Peel Water Story, 2001). Also, the fall in the number of personnel in the Ministry hindered the prosperity of the inspection exercise. When the surface was run-off by the heavy rain and cattle and pig manure was swept into lakes and oceans, the long term implication was that, the aquifers would get infected by the E. Coli bacteria. As such, any subsequent well that was plugged would produce contaminated water. The contamination, also caused the suffocation of the aquatic life since the cattle waste uses up all the oxygen in the water as it decomposes, rendering the water lifeless for its inhabitants (Holme, 2003). The Walkerton tragedy would have been prevented by instituting treatment process to kill the bacteria from the drinking water. Chlorination, for

instance, is one of the most effective treatment processes for contaminated water. However, its effectiveness comes into play when it is properly used. A timed test conducted on the water so as to ascertain the impurity in it, E. Coli, would have saved the seven lives that were lost as a result of the contamination. As a disinfectant, chlorine is easily measured, applied and even controlled. Its relative cost effectiveness makes it the most feasible treatment element (Peel Water Story, 2001).

It is just one of the examples of water contamination incidents that end up having far stretched implications in terms of finance and the environment in general. It is evident that the water is the most fundamental resource for human life and, therefore, it is imperative to make sure that drinking water is safe. It is done by employing effective and timely techniques that test and treat water before it is supplied to homes for consumption. In this context, the timing was very essential in that it differentiated live and death. The deaths and devastation of the community would have been prevented if the indications of a possible water contaminations by the environmental officers were acted upon promptly since the chlorinator had started to fail. The lesson learned is that issues that deal with water should be treated with urgency since water is life (Deadly water, 2000).

Water, in its various uses, has an economic value, hence it should be considered as an economic good. Severe environmental damages and wasteful use of water have been attributed to the failure to accept water as an economic commodity. The cost of curing the Walkerton tragedy is much higher than the cost that would have been incurred to prevent it. The provincial officials charge higher water rates and property taxes so as to

raise enough financial resources to recover from the tragedy. As a result, new residents and businesses are not attracted due to the high cost of living. The result is that the economic growth is slow due to the water tragedy (Holme, 2003).

Conclusion

Water is the most basic form of human rights. Although it is widely available, safe drinking water is not common. By allocating an economic value to water, users will utilize water, and environmental damages of water will be curbed. Authorities should price the water supply while keeping in mind that it is a human right. Effective water testing and treatment programs should be applied to prevent tragedies like that of Walkerton (Cech, 165).

References

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