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ENGL 106 8301
Exploratory Essay

Who will protect the Wabash River?

"I pledge on my honor that I have not given nor received any unauthorized assistance in the completion of this assignment. All work contained herein is my own. All referenced work is cited correctly."

On arrival to Lafayette, the first sight of the lush green suburban area gives the impression of a healthy and pleasant environment. However, this opinion fades at the sight of the dirty and murky water of the Wabash River. I was told that the Wabash River is a huge disappointment to the community of Lafayette–West Lafayette. The fact that a great university stands on the same land through which the Wabash River flows and the fact that the river has been polluted for a long time only highlights the need to bring attention to this problem. In many other developing nations where water pollution is dominant in rural areas, it is very tough to find safe drinking water. The sight of the Wabash River confirmed that it is an example of a neglected problem which will get worse over time. I selected this topic in order to shed light on the harmful effects of pollution, its impact on the environment and the inhabitants of nearby areas over a long period of time. My research question was, "What is being done to prevent the Wabash River from being flooded with pollutants?" Before I analyze the situation, I must be able to define the problem.

I began my research by trying to find the general definition of water pollution. I decided to look through the various encyclopedia sources that were available on the Purdue Libraries website. I decided to look through Funk and Wagnall's New World Encyclopedia. I entered the keywords "water" and "pollution" and limited the search to sources dated no longer than five

years old. After going through the different hits, I was able to find an appropriate definition for water pollution. It defines “water pollution” as, “Contamination of water by foreign matter such as microorganisms, chemicals, industrial or other wastes, or sewage. Such matter deteriorates the quality of the *water* and renders it unfit for its intended uses” (Funk). This definition offers an explanation of the various causes that might lead to water pollution. It was also able to explain the effects water pollution had on water bodies. This definition gave me a clearer idea about water pollution. Using this definition for water pollution, I was able to form the foundation for my research and to explore the various aspects of water pollution. I was able to identify the kind of problem that was evident in the Wabash River.

Using the Academic Search Premier, I decided to search for articles related to possible causes of water pollution and possible problems that were associated with the Wabash River. I came across an article by Maurie J. Cohen entitled, “The spatial distribution of toxic chemical emissions: Implications for non metropolitan areas”. This article deals with a possible cause of water pollution in non metropolitan areas. I selected this article because I felt that it would be able to address a problem that is similar to the one tat we face at Purdue. Through this article, the author is able to provide convincing and valid details as to why non metropolitan areas are susceptible to persistent water pollution.

The author explains the contributing factors by mentioning the fact that lower labor and land costs attract big corporations to invest and establish industries in these areas which make them more feasible. She reports that officials in rural communities, in order to attract manufacturing facilities, have slackened the enforcement of environmental regulations on these companies (Cohen). She also discusses the lower population densities in rural areas, which help in avoiding unnecessary conflict with the public regarding waste disposal and in most cases,

these huge corporations can escape without any scrutiny from the public eye (Cohen). The lack of scientific expertise, financial resources, and political influence of the citizens in the non metropolitan areas pose a serious threat to proving the credibility of their claims. In addition to these main factors, the author provides various other reasons that make these areas vulnerable to dumping of toxic waste (Cohen). This helps in establishing the fact that non-metropolitan areas are more susceptible to pollution compared to other regions. This article is credible since the author has also provided statistical data with references to prove her point. The fact that many citizens are unaware or unable to react to the damage affecting their community highlights the need for awareness and proper education. In addition to the community, the ecology of the nearby regions is drastically affected. However, in spite of this, there is evidence to suggest that there have been previous attempts to solve the problem.

To find more information of past attempts by the community of Lafayette -West Lafayette to prevent the pollution of Wabash River, I searched the Journal and Courier website to search for newspaper articles and typed in the keywords: 'Wabash', 'river' and 'pollution'. I also limited the search to articles after the year 2000. An article that caught my attention was, "Revamped Sewage Treatment Plant". In the article, the author talks of the sewage treatment plant in the Wabash area which has been revamped to account for the increase in sewage flow. The author states that according to the designers, the new sewage plant, "can process 52 million gallons of sewage per day, more than twice what the old plant could handle on a nice day and five times what it could handle during a flood" (Schenke). In the article, the author also mentions a vital step, i.e. the treatment of effluence by chlorination which prevents the river from being exposed to contaminated water (Schenke). I felt that this source was credible because it comes from a local newspaper in the Lafayette- West Lafayette region and therefore, concentrates on a

local issue with more detail. In addition to this attempt, there were many other attempts taken by the community to help in eliminating this problem.

In August of 2004, the first ever, “De-Trash the Wabash” event was held. This event reached out to the community and asked for their help in clearing the trash which collects on the bank of the river. This involved picking up trash from the bank of the river and depositing them in trash bins (Howard). This helped in bringing people together and get actively involved in the cleaning of the Wabash. In the article, there is a sense of awareness that is introduced to the public. The author quotes Susan Benner, executive director of the Wabash River Heritage Corridor Commission, who said, “This cleanup is a way we can act locally while thinking globally” (Howard). This attempt proved to be successful and even now, in the present year, this event is held (Shaw, RSTP).

Unlike in the past, the present involves many problems which have to be addressed in order to ensure an effective method to curb pollution in the Wabash. Earlier, the main focus was to take preventive means and inform the community and others who are concerned. At present, the situation demands us to take action against pollution of the Wabash. In order to find more articles of recent attempts taken to clean the Wabash, I once again browsed the Journal and Courier website and searched for, ‘Wabash River pollution’. This time I narrowed my search to articles within the past twelve months in order to search for the most recent ones. There was one article which interested me since it showed Purdue’s involvement in this issue. The article titled, “Purdue group to study Wabash River pollutants”, informs about the recent steps taken by a group from Purdue to take samples of water from the Wabash River and test it for various pollutants such as nitrogen, phosphorous and acids (Shaw, DWB). The author quotes Ronald Turco, director of the Indiana Water Resources Research Center, who said the two largest

sources of pollution in the Wabash River are waste treatment plants that do not function properly and rainwater that runs off fields where animals graze. He also talked about eroded soil which carry nutrients, and in turn, encourage bacteria to flourish. Turco mentioned that cleaning the Wabash River would not be an easy task since it is around five hundred and eleven miles long and that smaller sections would need to be given more attention at first (Shaw, DWB). It is evident that the steps taken in the past have helped in increasing awareness among the public. The 'De-Trash the Wabash' event was held on eighth of July this year with over 325 participants. The growing number from the previous years only shows the involvement that is being generated from small events as these. In the article, the author mentions the new goals and problems that have been identified. He states,

> In July, Indiana Department of Environmental Management representatives came to Lafayette to lay out the agency's report on pollution in the river. IDEM has found that the amounts of E. coli, phosphorus and nitrogen in the Wabash River exceed the limits allowed under federal law. Having such information will help local governments secure grants to pay for efforts to clean up the river. (Shaw, DWB)

It is clear that a strategy has been laid out to assess and act on the problem that is being faced at present. Also, laws have helped in curbing and lessening the rate of pollution in the Wabash River.

Laws have been enforced to ensure water quality in all regions of the country. After doing a brief research in various laws and regulations outlined by the government, I came across the Clean Water Act of 1972. I decided to search for it on google.com and came across a website for the United States Environmental Protection Agency, a government agency, which enforces

and informs the general public about various laws and regulations related to the environment. The Clean Water Act of 1972 was established, “to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted run-off” (USEPA). The law wishes to regulate and restore the chemical, physical and biological integrity of the nation’s waters. (USEPA)

Although the mentioned precautions taken should help the curbing of pollution in the Wabash River, it is not easy to ignore that the effects of water pollution on the surrounding ecosystem and the populace of adjacent regions are distressing. Through this essay, I was able to discover the various causes leading to water pollution. I also was able to find the various measures taken by the university and the community to prevent the Wabash River from being polluted in the past and in the present. It will be a huge responsibility on the whole community and concerned citizens to take the first step to attack the problem, but with the necessary steps, it will be possible to not only slow down but also entirely stop the Wabash River from pollutants and dumping of toxic waste.

Annotated Bibliography

"Water Pollution." *Funk & Wagnalls New World Encyclopedia*. 2002 ed. 23 Oct. 2006. <http://search.ebscohost.com/login.aspx?direct=true&db=funk&AN=WA017800&site=ehost-live>.

This source was obtained from the Purdue Libraries website. This source gives the definition of water pollution which helped me analyze my research question and give me a better understanding of the problem.

Cohen, Maurie J. "The spatial distribution *of* toxic chemical emissions: Implications for non metropolitan areas." 23 Oct. 2006. *Society & Natural Resources*. Jan. 1997. <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=9706244707&site=ehost-live >.

This source was able to provide information as to why non metropolitan areas are susceptible to water pollution. The source was credible since the author was able to provide valid data and statistics.

Schenke, Jim. "Revamped sewage treatment plant". JC Online. 26 Oct. 2006. *Journal and Courier*. 1 Sep. 2004. <http://nl.newsbank.com/nl-search/we/Archives?p_action=doc&p_docid=104E22CD25467E64&p_docnum=2&s_dlid=DL010610270348470817 0&s_ecproduct=SBK-D10&s_subterm=Subscription%20until%3A%2010%2F27%2F2006%209%3A35%20PM&s_docsbal=&s_subexpires=10%2F27%2F2006%209%3A35%20PM&s_docstart=10&s_docsleft=0&s_docsread=10&s_username=ssuresh>.

This source was able to provide details of attempts taken by the city of Lafayette to ensure the control of water pollution in the Wabash River. It talked about the setting up of a new sewage control plant in the Wabash area.

Shaw, Dan. "Dirty waterways, beware". JC Online. 26 Oct. 2006. *Journal and Courier*. 31 Jul. 2006. <http://nl.newsbank.com/nl-search/we/Archives?p_action=doc&p_docid=113426EBF19AE210&p_docnum=2&s_dlid=DL0106102705412618743&s_ecproduct=SBK-D10&s_subterm=Subscription%20until%3A%2010%2F28%2F2006%2001%3A06%20AM&s_docsbal=Docs%20remaining%3A%207&s_subexpires=10%2F28%2F2006%2001%3A06%20AM&s_docstart=10&s_docsleft=7&s_docsread=3&s_username=ssuresh>.

This article cites information dealing with the involvement of the community in cleaning the Wabash River this year. It informed me of the various attempts by the community to prevent the Wabash from being polluted.

Howard, Micah Leigh. "Event will seek to make Wabash a cleaner place". JC Online. 26 Oct. 2006. *Journal and Courier*. 26 Aug. 2004. < http://nl.newsbank.com/nl-search/we/Archives?p_action=doc&p_docid=104C7A0EA6E29A93&p_docnum=3&s_dlid=DL0106102706031920105&s_ecproduct=SBK-D10&s_subterm=Subscription%20until%3A%2010%2F28%2F2006%2001%3A06%20AM&s_docsbal=Docs%20remaining%3A%205&s_subexpires=10%2F28%2F2006%2001%3A06%20AM&s_docstart=10&s_docsleft=5&s_docsread=5&s_username=ssuresh>.

This source talks about the first ever attempt to involve the community to participate and provide an extra hand in cleaning the Wabash River. The first attempt involved collecting trash from the banks of the Wabash River. This was

an important article as it brings about awareness among the public about pollution in the Wabash River.

Shaw, Dan. "Purdue group to study Wabash River pollutants". JC Online. 26 Oct. 2006. *Journal and Courier*. 16 Aug. 2006. <http://nl.newsbank.com/nl-search/we/Archives?p_action=doc&p_docid=11391814AEE18A88&p_docnum=1&s_dlid=DL0106102706171209418&s_ecproduct=SBK-D10&s_subterm=Subscription%20until%3A%2010%2F28%2F2006%2001%3A06%20AM&s_docsbal=Docs%20remaining%3A%204&s_subexpires=10%2F28%2F2006%2001%3A06%20AM&s_docstart=10&s_docsleft=5&s_docsread=5&s_username=ssuresh>.

This source helped me assess the present measures taken to curb water pollution in the Wabash River. It also informed me about the new plan that has been drawn by the Indiana Department of Environmental Management to attack this problem through research. It also mentions their approach of working on small areas first and then on to the larger areas.

"Clean Water Act". U.S. Environmental Protection Agency. 26 Oct. 2006. <http://www.epa.gov/watertrain/cwa/>.

This website mentions one of the most important laws related to water quality in the U.S. It talks of the general overview of the regulatory tools that have been used to ensure water quality in major water bodies. It is a government website. Therefore, I am sure that the information provided is valid and unbiased.