

# Determining the causes and effects of water pollution in lake huron



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Lake Huron is one of the five Great Lakes in North America and also serves as one of the largest freshwater systems on the earth itself. Lake Huron, being such a huge source of fresh water, also holds numerous amounts of wildlife.

For a long time, the Great Lakes have served as a ground where many harmful pollutants have been disposed of. Pesticides, industrial waste and harmful fertilizers have served as a damaging way of unconsciously contaminating Lake Huron as well as the other Great Lakes. Pollutants that come as a result of this massive lake causes problems for fish, wildlife, and even people that are native to this area. My thesis is that, in determining the causes and effects of water pollution in Lake Huron, it can be determined as to what needs to be done in order to clean up the lake itself and the life that depends on it. Causes of Pollution in Lake Huron: There are many things that contribute to the pollution in Lake Huron. Mostly all of the pollution, however, can be attributed to four main causes.

These causes are Atmospheric pollution, air pollution, point-source pollution, and nonpoint-source pollution. Even though there are other sources that causes pollution of the Great Lake Huron, these four have been proven to attribute the most harmful of those causes. Atmospheric pollution is cause one and a major concern. It usually happens when rain or snow carries contaminates and makes its way to the water source contaminating the water itself. Cause two is air pollution and it is when waste from plants makes its way into the air from the burning of harmful substances and is then deposited into the water source. Read pollution questions for students

Cause three is point-source pollution and that usually means that the

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pollution comes from sewage, fecal matter, and mercury that comes from treatment plants and industrial facilities that are near the lake. As this matter is dumped into the lake, it causes problems because the life around the lake depends on the life that is inside of the lake itself. Nonpoint-source pollution is the fourth cause and it means that the pollution comes from a runoff of polluted water from lawns or crops that can have contaminates in it. " Water washing over the land, whether from precipitation, car washing or watering crops or lawns, picks up an array of contaminants including oil, sand and salt from roadways, agricultural chemicals, and nutrients and toxic materials from both urban and rural areas." (Nonpoint Source Pollution.)Figure 1.

Diagram of Pollution" Nonpoint Source Pollution." The Lake Huron Centre for Coastal Conservation. N. p., n.

d. Web. 22 May 2013. In Figure 1, we see a prime example of Atmospheric pollution, Point-source pollution and non-point pollution.

The effects of Pollution in Lake Huron: There are many effects of contamination in Lake Huron. Three main effects from the previous causes include Pathogens, Nutrients, and Toxic Contaminants. All three of these affect people in many ways. Pathogens are disease causing microorganisms, that come from animal and human waste. This nonpoint-source pollution cause is one that people rarely think of.

Pets around the area that use the bathroom unattended, or farm animals whose feces travel into the freshwater system causes pollution that end up being pathogens. These pathogens, as shown in Figure 1 can contaminate <https://assignbuster.com/determining-the-causes-and-effects-of-water-pollution-in-lake-huron/>

the fish that thrive in the water. If the fish are contaminated then the wild life that eat them are also contaminated. Since people eat fish and wildlife, it is inevitable that disease will often ensue from this effect of pollution. Figure 2: Shows the percent of samples exceeding the recommended single-sample maximum E. Coli standard for designated beach areas for 426 beaches reported in the Great Lakes each year from 2007-2011.

Great Lakes Supplement. (n. d.). Testing the Waters.

Retrieved May 22, 2013, from [www.nrdc.org/water/oceans/ttw/ttw2012-GreatLakes.pdf](http://www.nrdc.org/water/oceans/ttw/ttw2012-GreatLakes.pdf) Nutrients are compounds that stimulate plant growth, like nitrogen and phosphorous. " Water bodies require some nutrients to be healthy, but too much can be harmful.

When lakes receive an overabundance of nutrients, they can become polluted by excessive amounts of algae." (Nutrients: Phosphorus, Nitrogen Sources, Impact on Water Quality) If ingested by humans, it's obvious that disease or even death could come as an effect. Toxic Contaminants are substances that can harm sea and human life. They come from human causes such as fertilizers, and other pollutants that humans use to decontaminate land plants.

Many of these toxins are so strong that despite being consumed by wildlife and fish, the poisons tend to not break themselves down. That means, a toxin that went from fertilizer in a yard, can be a poison to a fish a human can eat, and therefore can affect people more than they thought.

Economically, pollution is a huge pproblem in society. Since Lake Huron is so large, a lot of the businesses around the lake depends on how the Lake itself <https://assignbuster.com/determining-the-causes-and-effects-of-water-pollution-in-lake-huron/>

is thriving. Three big economic effects of pollution are decreases in the job market, decrease in domestic food supply, and medical problems that effect the economy.

Around Lake Huron, tourism is a big market. People travel to this lake to do various things such as water ski, boat, fish, and learn about this huge Lake. People who are from this area use this as a way to secure work. According to an article, " Polluted beaches result in loss of utility for those who have planned to visit and swim in the water; that in turn impacts local economies in the form of lost tourist dollars and the jobs they support.

" (The Natural Resources Defense Council (NRDC) 2012). Over 50 percent of jobs in the Lake Huron area depend on the tourism demand. When pollutants get out of control, and there seems to be a risk to tourist, the demand for work gets scarce. With a decrease in jobs, the economy suffers. If people who live around the Lake can not eat the food supply that the lake offers because of contamination, they have to go elsewhere which takes away money from the Lake itself. When you are accustomed to selling fish to bordering places and using that same fish to feed yourself, then contamination can cause a huge rift in the economic stability that comes with growing and raising your own food.

Along with jobs leaving, if the food supply goes under the demand that can cause a huge problem economically as well. Last, but not least, medically, if people are getting sick from the pollution found in Lake Huron, then that can serve as another economic problem. Health is always at the for-front of the countries economic crisis. In conclusion, the effects of atmospheric pollution,

air pollution, Point-source pollution, and nonpoint-source pollution are some that have been proven to be detrimental to the growth of life around Lake Huron. Not only do these causes have a direct effect on life surrounding Lake Huron, but it has an effect on the economic stasis of the country.

Pollution is a big deal which is why many people are determined to minimize it at all costs.