The American Environmental Movement of the 1960's and 1970's Era

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During the 1960s and 1970s, many events lead people to realize that they actually had the power to cause change. The environmental movement is a very prominent example of this. Many people in the media wanted to make a change, and laws like the Clean Air Act of 1970 and the Clean Water Act of 1972 are proof. Events such as hydrogen bomb testing on Bikini Atoll, oil spills off the coast of California, pollution of the Great Lakes, and the use of insecticides was widely publicized and was the cause for great concern. Books published at the time, such as "Silent Spring," became widely popular and caused public outrage. Environmental conflicts during the 1960s and 1970s have caused people to make important and influential compromises for the environment.

Human caused environmental problems have increased greatly with the rise of industry in the 1700s. With the industrial movement, came the rise of machines replacing manual labor. Instead of wind, water, and wood, fossil fuels were used. The full impact of this was not seen until about 100 years later in the 1800s. The environmental movement was a very important contributor in the realization of how humans can damage the Earth and the great lengths we need to go to protect it.

Author Rachel Carson is considered by some to be the mother of the environmental movement for her book, "Silent Spring." This book was published at the beginning of the environmental movement on September 27, 1962. Silent Spring was a landmark for the development of the environmental movement. This book identifies the harmful effects of pesticides, specifically one called DDT (also known as dichloro diphenyl trichloroethane). Rachel Carson created a work that effectively caused great

debate within the scientific community and the general public alike. These discussions led to new policies meant to protect our air, water and health.

According to Carson, "During the past quarter century this power has not only increased to one of disturbing magnitude but it has changed in character. The most alarming of all man's assaults upon the environment is the contamination of air, earth, rivers, and sea with dangerous and even lethal materials. This pollution is for the most part irrecoverable; the chain of evil it initiates not only in the world that must support life but in living tissues is for the most part irreversible."

This book describes how negligent and haphazard application agricultural pesticides and chemicals polluted our streams, damaged animal populations, and caused severe medical problems for humans. Carson built her case against pesticides around science; she did extensive research, citing dozens of scientific reports. She conducted interviews with leading scientists, and reviewed material across disciplines. Silent Spring implanted new ideas into American's minds over the use of pesticides and how chemicals can affect not only animals and insects, but humans as well. Many government leaders including President John F. Kennedy and his Secretary of the Interior, Stewart L. Udall, took Carson very seriously. Carson's ideas and research became the central testimony at two congressional hearings; and a Presidential Science Advisory Committee 1963 report on pesticides confirmed Carson's call for limits on the widespread use of pesticides and called for further research into their health hazards. Carson inspired a new sense of thinking, where humans are not the center of life on Earth, but rather just a part of nature.

One event at the height of the environmental movement had an important impact in particular; this was in 1969, when the Cuyahoga River caught on fire. This event caused incredible public outrage over the dumping of sewage and industrial chemicals into the Great Lakes. There was great backlash from the media. Musicians and artists such as Randy Newman in his song "Burn On," and Dr. Seuss in his book "The Lorax," this part has been removed as of 1990 included references in their art to the current environmental problem.

There was a rise of Great Lakes industrialization in the early and mid 20th century. The Great Lakes were considered public sewers and waste disposal lagoons. Anyone who questioned the dumping of these pollutants was considered to be "anti-progress". Dirty rivers were seen as a sign of prosperity for industry. The Chicago River had fires so often they were seen as community events. In 1969, shortly after the Cuyahoga River incident, an oil matted Rouge River caught fire. Flames could be seen shooting 50 feet in the air. The 1969 Rouge River fire didn't get too much media attention though. People in the area accepted the fires as a part of industrial operations which brought jobs to the area.

Another event that caused backlash was the Santa Barbara oil spill that began on January 28, 1969. In the immediate aftermath, thousands of seabirds died, seals and dolphins were poisoned, and kelp forests were destroyed. Three million gallons of oil were spilled. There have been only two larger oil spills in the United States that happened since. This massive oil spill changed the way the public and government view fossil fuels. This event got even more attention in the days after the spill.

President Richard Nixon visited the site saying, "It is sad that it was necessary that Santa Barbara should be the example that had to bring it to the attention of the American people ... The Santa Barbara incident has frankly touched the conscience of the American people." In the following years, government action was taken. President Nixon signed the National Environmental Policy Act in 1969, which lead to the July 1970 establishment of the Environmental Protection Agency. In the wake of the spill, Santa Barbara also saw the evolution of a more powerful and engaged community of environmentalists. Groups like Get Oil Out! and the Environmental Defence Center were both founded after the spill.

Earth Day was started on April 22, 1970, by Wisconsin Senator Gaylord Nelson. It was started as an event to increase public awareness about the world's environmental problems. Earth Day was widely successful in increasing environmental awareness in the United States. In July of the same year, the Environmental Protection Agency (also known as the EPA) was created. "The objective was to get a nationwide demonstration of concern for the environment so large that it would shake the political establishment out of its lethargy," Senator Nelson said, "and finally, force this issue permanently onto the national political agenda." On April 22 1990, the 20th anniversary of the creation of Earth Day, more than 200 million people in 141 countries participated. Nelson's idea was inspired by the anti-war movement when he realized that he could infuse that energy with an emerging public consciousness about the effects of air and water pollution. It would force environmental protection onto the national political agenda. Senator Nelson announced the idea to the national media as a "national teach-in on the

environment".

The Clean Water Act of 1948 was the first major United States law to address water pollution. After events like the Cuyahoga River catching fire, the growing public awareness of the effects of water pollution and the importance of water pollution control led to many sweeping amendments in 1972. The 1972 amendments;

- Established the basic structure for regulating pollutant discharges into the waters of the United States.
- Gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry.
- Maintained existing requirements to set water quality standards for all contaminants in surface waters.
- Made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions.
- Funded the construction of sewage treatment plants under the construction grants program.
- Recognized the need for planning to address the critical problems posed by nonpoint source pollution.

The Clean Water Act of 1972, signed by President Richard Nixon, continues to be the primary law protecting fresh surface water in the United States. Over the years, many more laws have changed parts of the Clean Water Act. This law has greatly benefited our fresh water systems. According to an Iowa State and Yale University study, large declines in most pollutants targeted by the Clean Water Act can be seen. Amounts of

dissolved oxygen deficits and bodies of water that are not fishable both decreased almost every year from 1962 through 1990.

"Acid Rain" is a term coined by British chemist Robert Angus Smith in 1872. It was first used in his book "Air and Rain: The Beginnings of a Chemical Climatology."

Through his 20 year-long research of Britain and Germany's rain during the industrial revolution, he found very high levels of sulphuric acid present. Acid rain is caused by atmospheric moisture that has been mixed with different elements and gases that cause the moisture to become more acidic than normal. Acid rain can harm fish, animals, plants, and trees. Another concern of acid rain is it can accelerate the weathering process of different buildings and monuments made of stone. It could negatively affect different historically significant monuments and buildings. Amendments to control the pollutants causing acid rain were added in 1990.

The Clean Air Act was a legislation passed to control air pollution in the United States. Although it was originally passed in 1963, major amendments were added to it in 1970 and 1990. Amendments to this law were passed at the height of the environmental movement. Dense and visible smog in many of the nation's industrial cities also helped to prompt the passage of the 1970 amendments. The 1970 revisions were designed to target newly recognized air pollution problems such as damage to the ozone layer and acid rain. According to the EPA website, the Clean Air Act requires the EPA to establish National Ambient Air Quality Standards (also known as NAAQS) for certain common and widespread pollutants based off of the latest science; also known as 'criteria air pollutants.' This act also targets other specific provisions;

- Hazardous or toxic air pollutants that pose health risks such as cancer or environmental threats such as bioaccumulation of heavy metals
- Acid rain that damages aquatic life, forests and property
- Chemical emissions that deplete the stratospheric ozone layer, which protects us from skin cancer and eye damage
- Regional haze that impairs visibility in national parks and other recreational areas Environmental conflicts during the 1960s and 1970s have caused people to make important and effective compromises for the environment. The environmental movement in the 1960s and 1970s is a key factor in modern day environmentalism.
 The environmental movement in the United States was essential to many of the most important environmental protection laws such as the Clean Air Act and the Clean Water Act. It can be attributed to the creation of many important environmental organizations such as the EPA. Many events in the 1960s and 1970s still prove today that a group of people with the same ambitions and goals can make a difference.

Annotated Bibliography

Primary Sources:

Carson, Rachel. Silent Spring.

Rachel Carson was the author of the book "Silent Spring". This was very important to my paper because this book was extremely important to the start of the environmental movement.

Meadows, Donella H., et al. *Limits to Growth*. POTOMAC ASSOCIATES, 1972.

"Limits to Growth" was another book released during the height of the environmental movement. This helped me write my paper because it gave me information of what people were trying to change.

Randy Newman. "Burn On." Record Plant, California, 10 Nov. 1974.

Randy Newman is the musician responsible for the song Burn On, written about the Cuyahoga River fire. This was important in my research because it helped me understand the importance of artists to the environmental movement.

Richard Nixon: "Statement on Coastal Oil Pollution at Santa Barbara, California.," February 11, 1969. Online by Gerhard Peters and John T. Woolley, *The American Presidency Project*.

This is the statement Richard Nixon released regarding the Santa Barbara oil spill. This was important to my paper because I got to read about what the government said they would do to help the effects of the oil spill.

Schwab, Jim. "Green Justice." *Nation*, vol. 258, no. 6, 14 Feb. 1994, pp. 207-210.

Jim Schwab is the author of the book Green Justice. This was important to my paper because it helped to recognize more of the feelings of the people involved in the environmental movement.

United States, Congress, A Legislative History of the Clean Air Amendments of 1970, Together with a Section-by-Section Index. 1972. U.S. Govt. Print. Off. Congress.

These were the amendments added to the Clean Air Act in 1970. This was important to my paper because I was able to find and read about the amendments without having anything cut out.

United States, Congress, Legislative History of the Water Pollution Control Act Amendments of 1972: Together with a Section-by-Section Index. 1973. U.S. G.P.O. Congress.

These were the amendments added to the Clean Water Act in 1972. This was important to my paper because I could read the actual amendments added, and not just overviews of them.

Secondary Sources:

"Acid Rain." The USGS Water Science School, USGS, 12 Feb. 2018.

This website talks about what acid rain is and what the effects of it are. This was important for my paper because I learned about why acid rain affects the environment.

"Clean Air Act Requirements and History." *EPA*, Environmental Protection Agency, 10 Jan. 2017

This talks about the Clean Air Act. This was important to my paper because it talked about how the Clean Air Act benefited the United States and about the amendments.

McDiarmid, Hugh. "When Our Rivers Caught Fire." *Michigan Environmental Council*, Michigan Environmental Council, July 2011

This website has information on how the Cuyahoga River caught on fire in 1969. This was important because it talked about how much pollution was in the Great Lakes, why there was so much pollution, and why the Cuyahoga River fire of 1969 was important in particular.

Phillips, Ari. "How A Massive Oil Spill In 1969 Changed Everything." *ThinkProgress*, ThinkProgress, 30 June 2014

This website talks about the Santa Barbara oil spill in 1969. This was important because it included bits from interviews from people living in Santa Barbara at the time and that helped me understand how terrible the situation was.