The Triumph and Tragedy of the Clean Water Act

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Smelly rivers, trashed seaways, and toxic waste in the oceans are examples of how disgusting the water used to be before the Clean Water Act. Due to the toxic waste in the oceans, and pollution in our waterways the USA needed to act, the US needed to take action so in the future the water could be cleaner, healthier, and usable. A new movement began to educate the public and pass laws with the Environmental Protection Agency. A new goal for a crystal clear water future had begun.  

The Clean Water Act (CWA) of 1972 made rules to control pollutants leaking into the water. How did this Act begin? What exactly is water pollution? How has it impacted our environment, our laws, and our future? These are questions help me to better understand the importance of the Clean Water Act and what we can do to help make the Earth a better place, along with why the CWA was needed. The CWA and Environmental Protection Agency (EPA) are important tools to help America create a better and healthier future. The EPA is the Environmental Protection Agency and was formed in 1970 in hopes to help save the environment from any pollution. The EPA helped save cities, states, and their environment, by creating government regulations and searching for ways to prevent pollution. The Department of Interior, along with the Department of Health, Agriculture, Education, Welfare, and the Atomic Energy Commission was taken over and run by the EPA when the EPA formed. The EPA did not only prevent pollution, it also passed the Clean Air Act in 1970. However, it was able to use billions of dollars to help with the Clean Water Act. Earth's water is important, and it must be kept healthy and safe. Areas on Earth only have a limited supply of clean water left. Richard Nixon, our 37th President was not a man who really cared for the environment, and that is why the EPA

was formed to take action in 1970. The environment was in serious danger and it became part of the political radar by 1968. It was becoming clear the people were the problem to all of this environmental mayhem! Hazards were placed throughout America as the pollution continued to produce unhealthy rain. Cities were being demolished slowly by the overwhelming amount of pollution. Boat's could not even transport things, because the waterways were clogged up. Many different things in Cleveland burst into flames, and were not going well anywhere in on the Earth. Climate Change had been around for a long times, and this caused things to be much worse for trees, grass, and atmosphere before the EPA came around. Climate Change has added to the cause of historic floods and glaciers melting.

According to epa.gov, the basis of the Clean Water Act (CWA) was created in 1948 and was called the Federal Water Pollution Control Act, but the Act was amended in 1972 and became known as “Clean Water Act”. The CWA is part of EPA regulations that was formed in the hopes of saving the environment from the damaging effects of pollution. The Department of Interior, along with the Department of Health, Agriculture, Education, Welfare, and the Atomic Energy Commission are all overseen by the EPA.

The Clean Water Act’s original goal was to get rid of untreated waste from cities and factories to make it safe for swimming and fishing. “One goal of the Clean Water Act of 1972 was to upgrade the nation's sewer systems, many of them built more than a century ago, to handle growing populations and increasing runoff of rainwater and waste.”

- Charles Duhigg

In 1972 the CWA decided to expand its goal and decided to treat drinking water, also. This incident helped increase the public’s response and concern for the condition of the country’s water supply including lakes, rivers, streams, wetlands, and coastal areas. In the fall of 1972, Congress overrode President Nixon’s veto and passed the Clean Water Act of 1972. The law has been amended several times over the years to ensure the health and safety of people and water supply. The amendments included policy, guidelines, and enforcement of wastewater management, pretreatment, stormwater pollution, animal waste operations, oil and hazardous spills, wetlands, drinking water, public water systems, and underground water systems.

According to nrdc.org, unsafe water kills more people than war and other forms of violence. Most of America has access to safe water, however, some of the country was using harmful and unsafe drinking water, possibly without knowing. Water pollution is when a harmful substance like chemicals and microorganisms contaminate streams, rivers, lakes, oceans, aquifers, and other bodies of water.

**Categories of Water Pollution**

*Groundwater:* When it rains, the water finds its way into the ground and becomes groundwater. Many people use groundwater for drinking, especially people who live in countryside areas where it is their only source of drinking water. Groundwater gets polluted from pesticides, fertilizers, farms, along with the fact that groundwater can seep into other bodies of water.

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3 NRDC.org “Water Pollution: Everything You Need To Know”, by Melissa Denchak, May 14, 2018
*Surface Water:* Surface water covers about 70% of our earth and is what makes up our lakes, oceans, rivers, and waterways. According to the U.S. Environmental Protection Agency (EPA), nearly half of our rivers and streams and more than one-third of our lakes are polluted and unfit for swimming, fishing, and drinking. Nitrates and phosphates pollute the water from farm waste and fertilizer runoff making the water unfit to use. ¹

*Ocean Water:* 80% of ocean pollution starts on land from chemicals, nutrients, and heavy metals from farms and factories. Oil leaks and spills also pollute our oceans greatly.

*Point Source Pollution:* Point Source Pollution is when pollution originates from a single source like a sewage leak, chemical and oil spills, and illegal dumping. The EPA regulates point source pollution by setting limits on what can be dumped into a body of water.

*Nonpoint Source Pollution:* Pollution from many different sources like runoff and debris. This is difficult to regulate because there is not one single source.

*Transboundary:* Transboundary is when water pollution crosses boundaries and eventually finds it way to each other. For example, agricultural runoff can end up in groundwater or streams and find its way to larger bodies of water and add to debris and pollution from factories or chemical and oil spills. The different types of pollution come together.

¹ NRDC.org “Water Pollution: Everything You Need To Know”, by Melissa Denchak, May 14, 2018
The most common types of water pollution are agricultural, sewage and wastewater, oil pollution, and radioactive substances. Many government regulated agencies have been created to regulate and enforce safety and health of our water supplies.

Over the years, people began to become more educated on the effects of pollution on our environment and more people have become actively involved in saving our planet by recycling and being more conscience of the water supply. Before the Clean Water Act of 1972 some rivers and lakes began to smell and toxic waste was leaking into the oceans. The most polluted waterway is the Ohio River due to long term industrial pollution. The second most polluted waterway is the Mississippi River due to industrial pollution, farming, and runoff. These and similar cases like them have helped cause some of the Clean Water Act rules.

The Clean Water Act also helps keep the water in our cities clean by testing for chemicals and nitrates and putting laws in place to protect people’s health. In 2014 Flint, Michigan got a new water system and began taking their water from the river. The filtration system was not appropriate and many people became sick. It is important that rules and regulations keep progressing and changing to meet the health and safety needs of everyone.\(^5\)

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Water was and still is a source to wash away unwanted garbage. Garbage ends up either in a dump, a river, stream, lake, or ocean. A dump is the only way that people should dispose of garbage. Because garbage ended up in water, we were forced to pass the Clean Water Act. Water can actually break down and dissolve many items that get thrown into it, mostly organic compounds. Organic compounds decompose when in contact with enzymes and bacteria. Regular waste decompose too, but it's called biodegradable. There are many long term effects such as, persistent pollutants (metals), plastics, and chlorinated hydrocarbons. These items can cause long term effects because they can make water very poisonous for almost any life form. However, biodegradable water pollutants can also affect water supplies for a long time.

There are many things people can do to help keep our water clean and help our environment.

1. Do not use plastic straws
2. Conserve water and take shorter showers
3. Do not litter
4. Know where your drinking water is coming from
5. Educate ourselves
6. Use landscaping to decrease runoff

Contaminated water can cause short and long term health issues and impact our environment and marine life. Some diseases caused by unsafe water are cholera, giardia, typhoid,
and Legionnaires’ disease. Marine life is suffering and changes are being made to our climate and health as a result. Our ecosystems rely on each other for a healthy environment and unsafe water can lead to chain reaction in our systems. Earth's water is important, and we must keep it healthy and safe. Although it is easy to get water, it is much easier to ruin it. Plants and animals need water to survive, just like us, but if we go out and pollute our seaways and water sources, who knows what the animal population will become and how it will affect mankind in the future.

Tragedy had struck, and dark musty water was taking over our swimming and drinking water. Water deserves to be more monitored and treated much more carefully. Thanks to the CWA, the United States has made triumphant progress for the clean water act for all.

“Clean water is a great example of something that depends on energy. And if you solve the water problem, you solve the food problem.”
- Richard Smalley

Annotated Bibliography
https://www.brainyquote.com/quotes/richard_smalley_730914 This website holds many quotes, including quotes that can give me information on anything I need. I would most certainly call this website a primary source, mostly because of all it's quotes!


LIFE showed me a photo of a boy letting a frog jump out of his hands into a healthy pond. I chose this as a source because it shows what we wanted and need to keep these little guys alive. The photo was taken after the Clean Water Act, and we are happy that we could have a great environment. Let's not be selfish and let go of this triumph.

1972 Clean Water Act. Photos for Class, photosforclass.com/search?text=clean+water+act. Accessed 11 Feb. 2019. This photo does not have any information, so we are forced to observe all that it has to offer. I think the photo represents the act water contributing factor.


"Environmental Movement." American History Online. Lincoln Library Press, 2012. FactCite, www.factcite.com/useh/5000021.html. FactCite was a web site that gave me information on the Clean Water Act which told me about how the environment was being killed off, hazards were being sent out, people did not understand the danger, recycling 20 years
later, and economic problems. The source helped me realize the tragedy and times which happened before the Clean Water Act was passed.

EPA. "Clean Water Act." Epa.gov, EPA, www.epa.gov/laws-regulations/summary-clean-water-act. Accessed 18 Feb. 2019. This website was founded by the EPA itself, and proves to us the effects of the Clean Water Act has long term effects. EPA.gov talks about the Acts they have helped pass and all the tragedies they have helped stop.

Library of Congress. www.loc.gov/. Accessed 22 Jan. 2019. The Library of Congress has lots of information on the Clean Water Act and what it was before and after it was passed. The information stated that the Clean Water Act had changed a lot of things, the water treatment, the supply amount of pollution, state population programs, and other things. Those things that changed showed me that the smallest to biggest things can bring triumph and tragedy.

"Nixon's Clean Water Act Impoundment Power Play." Huffpost, 22 May 2012, www.huffingtonpost.com/entry/nixons-clean-water-act-im_b_1372740. Accessed 6 Feb. 2019. This article focuses on facts about the Clean Water Act that I have yet to know, like how Richard Nixon actually vetoed the Clean Water Act. I am not sure whether this is a triumph or a tragedy because of it many facts, but it sure helps me out on my research!

Opposing Viewpoints. 2017,
This Web Site article on the Clean Water Act explained what the Clean Water Act was protecting and what was happening because of it. It focused on everything that happened because of the Clean Water Act which presented mostly triumph with a little bit of times.

Outwater, Alice. *Water: A Natural History*. New York, NY, Basic Books, 1996. Outwater, a book that talks about many things, from why it was important to save our lakes, rivers, and seaways to what we did before the Clean Water Act. Along with having lots of information, the variation of times, triumph, tragedy, and transformation shifts a lot.

Thornton, Lee. "Environmental Protection Agency (EPA)." *World Book Student*, World Book, 2019, www.worldbookonline.com/student-new/#/article/home/ar182432. Accessed 16 Jan. 2019. *World Book Student* is an article that has mostly information on when the EPA was formed and what it was. You could say that this was a triumph because the EPA was the group that really took charge into saving the environment.

"Water." *Britannica School*, Encyclopædia Britannica, 3 Dec. 2018. school.eb.com/levels/middle/article/water/277663. Accessed 17 Jan. 2019. This encyclopedia is all about Earth's important, why would we ruin a perfect environment giving us space to live? I found that this source was not anything, not a triumph, a tragedy, a transformation, or a time, but just some information that could help me back up the importance of Earth in my article.