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The Keystone Pipeline: Is this Black Gold Worth It?

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The Keystone Pipeline: Is This Black Gold Worth It?

According to an article from the *Center for Effective Government* “[s]ince 2010, over 3,300 incidents of crude oil and liquefied natural gas leaks or ruptures have occurred on U.S. pipelines” (Starbuck par. 3). The Keystone XL pipeline could be added to that horrific list of problems if the project goes ahead. In the past months, the president of the United States, Donald Trump, signed an executive order that will allow the construction of the pipeline in the United States. This pipeline has been very controversial for years. There are many that oppose this pipeline. They had been protesting against it for an extensive period of time. There are several reasons to oppose this pipeline. **The negative impacts the Keystone XL pipeline will have are huge. It is culturally threatening, socially unethical, and environmentally dangerous. The negative effects are bigger than the benefits it may bring. Therefore, its construction should be reconsidered.**

The Keystone XL project is a pipeline construction project that will transport oil sands from Alberta, Canada to the U.S. Since this pipeline will go from Canada to the United States presidential permit is needed for its construction. In September 18, 2008 the application for its construction was submitted (United 7). After several years of analysis to see if the pipeline will be on the national interest on November of 2015 the Obama administration rejected the project. President Obama said "(t)he pipeline would not make a meaningful long-term contribution to our economy" (Obama par. 6). He went on to say "America is now a global leader when it comes to taking serious action to fight climate change. And frankly, approving this project would have undercut that global leadership" (Obama par. 13). As reported by president Obama the pipeline

would not bring great economic benefits compared to the importance of fighting climate change. Regardless of this decision on January of 2017, the current president, Donald Trump, signed an executive order to allow the construction of Keystone XL Pipeline. He argues that many jobs will be created as well as great benefits to the economy.

Since 2008, the year when the project was proposed, many social groups had fight against this pipeline. One of these groups are Native Americans. They made alliances with farmers to fight the pipeline. In addition, environmental groups have also join this fight. Many people gather to join the protest. When president Obama deny the project many people feel relief. However, now that the new president have approve the construction of Keystone XL, these social groups were in need to fight again. Dallas Goldtooth, one of the protest organizer said “(w)e have demonstrated that there is interest and support from across the country and across the globe to support indigenous resistance to protect our rights and we want to continue that fight onward” (qtd. in McKenna par. 6). The resistance to this pipeline have yet not died.

As mentioned before, the pipeline will transport oil sands form Canada. If constructed the pipeline will be able to carry “830,000 barrels of oil per day” (Brady 1). Oil sands, also known as tar sands, are a type of very impure form of oil. It is formed of a "mixture of mostly sand, clay, water, and a thick, molasses-like substance called bitumen" ("What" 1). Since this type of oil is very impure, it takes a lot of energy to purify. In an interview with the Parkland Campus sustainability coordinator, Thor Peterson, more information about this type of oil was found. He explained that since these tar sands are very dirty. He also said that in order to separate the oil from the tar sands, heated water, steam and a long process, that require a lot of energy, have to be used (Peterson). He explained a little bit more by making a comparison. He said “some ways of getting oil out of the ground are relatively low energy, [...] (using) hot water and steam and

other bunch of processes to basically extract through this mixture that they brought up in Canada takes up a tremendous amount of energy at the front just to get it out of the ground” (Peterson). On top of that, after this oil is ready for consumption, it is not very safe to use. In an article from the *Union of Concerned Scientists* it was reported that the gasoline made from tar sands compared to the one made from traditional oil generate carbon emissions of 15% higher. In addition, extracting these tar sands also generate higher amounts of carbon dioxide that unfortunately increase over time ("What"). As can be seen, this pipeline will be transporting one of the most unclean types of oil. **Keystone XL pipeline along with tar sand oil will bring many negative consequences. This project will be dangerous to the environment, threatening to the cultures around the area, and unethical to the people that live along the pipeline route. This pipeline should not be constructed, since the danger it represents is greater than the benefits it may have.**

Threaten to Native Americans

As mentioned before, many people have shown their concern for the construction of the Keystone XL pipeline. One of the major groups that has been protesting for a long time are Native Americans. They established many camps for months in order to be listened by the government. They have great reasons to protest against it. The negative cultural consequences towards this social group is clear. **The proposed Keystone XL pipeline project will be threatening to Native Americans culture and people, including their beliefs of protecting nature, a violation to their sacred land treaties, a potential loss of cultural sites, and a risk for their people, especially young women.**

The Keystone pipeline project will go against the Native American beliefs in nature and their relationship with it. Native Americans have strong beliefs in the importance of nature. They believe to "(s)how deep respect for the mineral world, the plant world, and the animal world" ("Native"). They truly believe in respecting every single living creature that habits in planet earth. This pipeline project will put in risk to many areas where wild animals, as well as, water animals live. Their ecosystem will be destroyed. As can be seen, this pipeline goes against Native American cultural values.

For Native Americans it is not only important to "(s)how respect" to planet earth and the living organisms that live in it, but also it is a responsibility to protect it. In addition to respecting planet earth, they also belief that they have to "protect (their) Mother Earth for (the) future generations" (Donella par. 9). For Native American people it is very important to defend the ecosystems in planet earth. The proposed pipeline project will go through important bodies of clean water. For Native American people these water resources are very significant, they call themselves "water protectors" (Grass). It is not only a body of water but it is a source of life. Many bodies of water will be in danger by this pipeline project. Only one of them is the Ogallala Aquifer that is a water source in South Dakota for 200,000 people ("Tribal" par. 4). A lot of indigenous people will be negatively affected if a leak or spill occurs in this area. As it is known with pipelines, there is always an open possibility of leaks or spills. In an article from the magazine *New Republic*, it was reported the Exxon's underground Pegasus Pipeline spill of approximately 210,000 gallons of oil in Mayflower, Arkansas that contaminated a vast amount of places including a lake around the area. This pipeline was carrying oil mined from tar sands of Alberta, Canada; the same type of oil that will go through the Keystone XL pipeline (Caplan-Bricker). This spill had tremendous negative consequences. In addition, this type of oil is not

easy to clean, residues of this oil could remain for years. If a spill of such magnitude happen with Pegasus Pipeline, what would stop the same to occur with Keystone XL?

In addition to going against Native American beliefs of preserving nature, the pipeline will also break some sacred land treaties that were established with Native Americans many years ago. There are two major treaties that this pipeline project will be violating. First, the 1868 Treaty of Fort Laramie, in this treaty the US government agreed to designate to the Sioux Tribe part of Dakota territory (Haq par. 7). Second, the Keystone XL pipeline will be "passing right through the heart of the Oceti Sacowin treaty area that was established before the Laramie Treaty back in 1868" ("Tribal" par. 3). These treaties were established years ago as formal documents that assure the protection of the sacred land of Native American people. In an interview with Professor VerStrat, doctor in cultural studies, it was explained further what the meaning of Native American land is. She said "a reservation is land preserve for tribes that originally inhabited that land." (VerStrat) She went on and said "in many ways when immigrants come to this country they took over many lands through process of colonization."(VerStrat) She explained furthermore by saying "their culture has been taken from them, their language, through boarding schools, through assimilation so land is the one thing that is guarantee by this treaties, (they) (are) legal documents that guarantees this land."(VerStrat) These treaties should be respected by the government. As professor VerStart said, they have already lost a lot of their culture throughout the years, their land is one of the few things that remain untouched. This land is part of their history. Native American rights will be violated if this treaties are broken. They fought for their sacred land rights many years ago and as result of these the treaties were created. Do these people have to fight again? It is unethical that the government don't recognize these treaties.

Aside from many treaties being broken, the Native Americans rights are not being respected by this proposed pipeline. As said by President Cyril Scott of the Rosebud Sioux Tribe “(w)e have a sovereign nation. We have our own constitution and laws here. But they violated my people’s treaty rights once again” (qtd. in Miranda, par 7.). Native American people were not being consulted about the future construction of this pipeline. Even though in South Dakota 9 percent of the population are from Native Americans tribes, this social group has been ignored many times (Miranda, par. 10). As part of the US population, these people's voice and rights have to be respected. Kristen Carpenter, a Professor of Law at Harvard School and Oneida Indian Nation, said that in the National Historic Preservation Act it is stated that if the federal government will try to take use land that have a traditional and cultural value, the tribes should be consulted first. (Morris, par 13). They have been protesting for an extensive period of time against the construction of a pipeline that will be threatening to their culture. It is unfair that these people are not being listened to.

Also, Native American tribes have the support of the public to defend this sacred land that belongs to them. According to a survey about the Keystone XL pipeline that I conducted on Survey Monkey of 15 people that are current Illinois residents during the month of March and April of 2017, I found that 93% of the people surveyed are against the construction of the Keystone XL pipeline through Native American land. (See Fig 1). People expressed their opposition to this pipeline. Some of the response where “it is inappropriate that we take their land and build something that will have a negative effect on their land and drinking water.” (Salazar) Also, "The rights on Native Americans should be respected. Their land has often been exploited without proper compensation of the government" (Salazar). Many people agree that

their rights should be respected and their land preserved. As can be seen, people agree that the pipeline should not attempt to go through these areas.

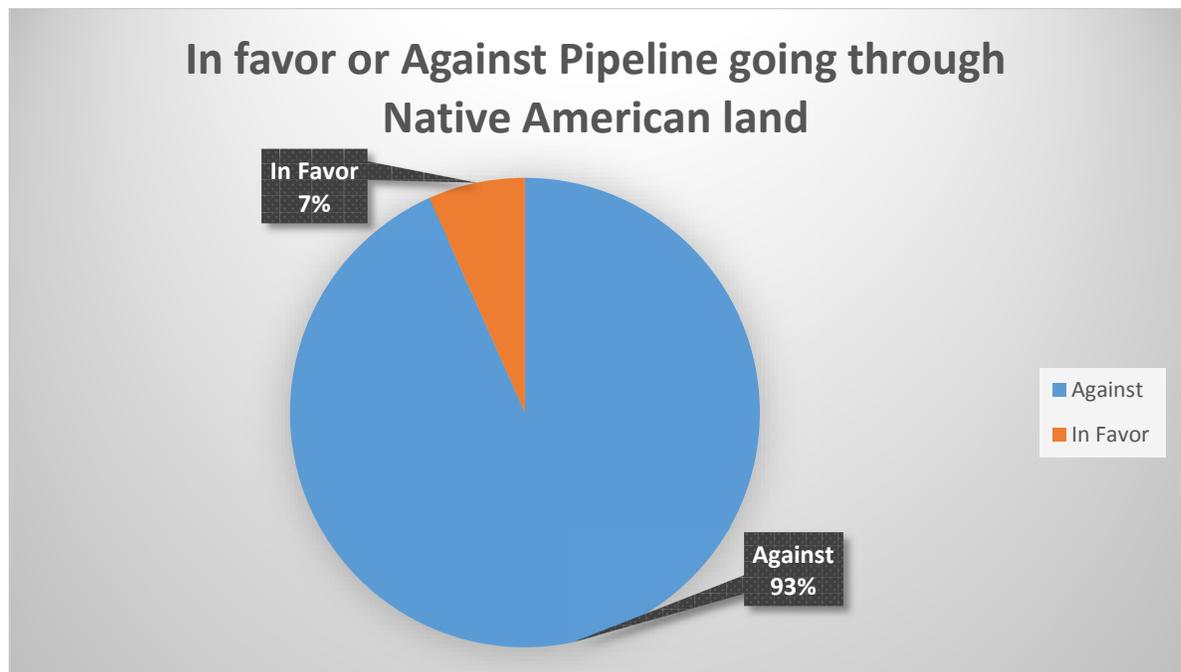


Figure 1. Salazar, Claudia. "Keystone XL pipeline." Illinois State Residents. 4 Mar. 2017 – 17 Apr. 2017.

Native American culture will not only be threatened by the broken treaties but also by the loss of sacred land. The pipeline will go through Native American sacred land that would be lost if the project proceeds. As written by the Great Plains Tribal Chairman's Association "(l)iterally, thousands of sacred and cultural resources that are important to our life-ways and for our future generations will potentially be destroyed or compromised by the pipeline construction" (Cama par. 3). The sacred land of many Native American Tribes will be put in risk by this pipeline. This sacred land has been preserved by these people for generation. For them these areas have a huge cultural and religious meaning. One of the Spirit Camp's coordinator and a Nez Perce native, Gary Dorr, said "(w)e buried medicine in that pipeline route [...] (i)n February, we held a ceremony and a spirit leader said the camp is the embodiment of a prayer"

(qtd. in Rolo, par. 2). These sacred land they are defending is the place where important ceremonies have taken place. Their cultural traditions have been developed in these sacred land. For them the loss of these sacred land cannot be taken easily. It is a connection they had for centuries. This loss for them would be very significant. In an article from *Diverse Issues in Higher Education*, it was informed that the developers of Dakota Access pipeline had dismantled a burial site that belong to the Sioux tribe. Members of this tribe were pushed back with the use of attacking dogs and pepper spray as they were peacefully trying to stop these actions (Morris par. 1). These people were trying to stop the destruction of their burial sites, and harmful actions were taken against them. It is not right that these people are treated this way. Would the same happen with Keystone XL? This is an example of the loss of a burial site. This pipeline project should not go further.

Besides from the physical losses that may come with the pipeline construction, many Native American woman will be in risk. For the construction of the pipeline many construction men will come. In an article from *Pacific Standards*, the author relate the story of Annita Lucches, a Native American women that works for National Indigenous Women’s Resource Council. Lucches was in Montana Gray hound station, and she notice a wall full of pictures of missing women. Even though she knew that women trafficking was a big issue seeing the wall of pictures was still shocking. She proceed to take pictures with her phone in order to share in social media. While she was doing that, she hear some oil ringers talking. They were saying “in North Dakota you can take whatever pretty little Indian girl that you like and you can do whatever you want.” She was shocked when she hear this, “To hear something like that—he was literally talking about kidnapping and raping girls in public at three in the afternoon—that is how bad it is. That is when it really sunk in that this is the nightmare landscape we are living in—when men

can talk openly about raping women and there are no consequences. It's like I'm not safe here; my sisters are not safe here." In the same article, according to the 2010 National Intimate Partner and Sexual Violence Survey, more than fifty percent of Native American women have experience a kind of sexual violence and that more than a twenty-five percent of Native American women have been raped. (Shilton). The statistics are shocking. Men camps are a risk that many women will have to face if the pipeline project goes ahead. Once again, Native American rights will be violated.

In summary, this pipeline project will be violating Native American culture, not respecting their rights, and destructing significant sacred land. Native Americans deeply believe that nature and the planet earth have to be respected and defended. This will be threatened by the construction of Keystone XL pipeline. In addition, their treaty rights will not respected. This pipeline will be breaking the Treaty of Fort Laramie and the Oceti Sacowin treaty. On top of that, the National Repatriation Act will also be violated. All these documents were established to respect Native American culture and their sacred land. These sacred land a have huge cultural meaning that transcends generations. They create connections to this land. Native American people want to defend this land not only for them but also for the future generations. In addition, the construction will bring a lot of workers to 'Men camps' that will expose Native American woman. Native Americans rights and beliefs should be respected. This project should be reconsidered.

Negative economic and legal impacts of Keystone XL pipeline

Besides Native Americans, the pipeline project will also have a negative legal and economic impact towards landowners. Throughout the pipeline's route a large number of families are going to be negatively impacted. This project is very expensive. It will indirectly

affect the economy of many families and risk their working sources. The negative consequences that follow its construction have to be told. **The pipeline project will generate a negative legal and economic impact. The project will be expensive to build, risk people's and state's economy, and create many expensive lawsuits.**

This pipeline project will have a high cost. According to an article from the *Financial Post*, by the end of 2014 the pipeline cost was up to 8 billion dollars (Snyder par. 4). Although this amount is going to be paid by the company that proposed the project, it is still a high amount of money. Now, it is important to note that the figure mentioned was only up to 2014. The amount probably has risen up until this year, 2017. The question is why keep investing in a non-renewable source of energy? There are many new technologies that could replace oil. Besides, the type of oil that will be transported by this pipeline is one the dirtiest oil, that require more energy to produce and it is not so profitable. In an article from *Climate Change*, it was reported that it is high-priced to "mine oil sands" (Magill par 17) and that the price of a barrel of oil has to be over \$80 for the production to be profitable (Magill par 18). New technologies have developed pretty fast in past couple years. Thor Peterson, the Parkland Campus Sustainability Coordinator, explained in an interview the change in energy sources. He said "renewable energy sources are becoming cheaper and cheaper to the point where right now is cheaper to install [...] a series of solar panels, than it is to build a coal power plant to produce the same type of electricity" (Peterson). He also added "oil is primarily used for automobiles refines into gasoline and then used in automobiles, a similar shift that is happening right now [...] is the move toward electric cars and self-driving car" (Peterson). It would make sense to invest in these cheaper technologies that will soon change the energy source.

In addition, there are financial problems regarding the surroundings of the proposed route of the pipeline where many families live. Most of these families are farmers. They are the landowners of the areas the pipeline is trying to go through. These people are worry about the construction of this project because it will negatively impact their livelihood. According to an article from *Inside Energy*, landowners are concerned about a possible spill of this pipeline in their land. They said that a spill of high magnitude is something they can't afford (Gerlock par 8). Their life and their jobs are centered in agriculture. If spills occur in the area, they will lose a lot money. Their crops will be damaged. Therefore, it will have a direct negative impact jobs and their livelihood as well. In April of 2016, the Keystone 1, which is the first part of the pipeline project, spilled 17000 gallons of oil (Gerlock par 7). If this happened before with Keystone 1 there is a high chance that could happen with Keystone XL. As a consequence of these spills, many families' income will be in risk. It is unethical that a foreign company tries to go through American private property; it will not only going through it but risks many families' income.

This pipeline will not only go through one family's private property, but many families throughout the route. One of the states the pipeline is going through is Nebraska. If the pipeline is built, the state's economic income will be negatively impacted. According to an article from *Reuters*, there are around 90 landowners whose property is in risk and therefore their income (Volcovici "Last" par 2). Nebraska's primary economic income comes from agriculture. If many families are going to be affected by this pipeline, Nebraska's economy will be directly negatively affected.

In addition, one of the arguments that the company that is building that pipeline make is that they will pay a high amount of taxes to the state. TransCanada, the company that proposed that pipeline, expected to pay 55.6 million in taxes for the pumping stations and the pipeline in

three different states the pipeline is going through (Volcovici "Last" par. 23). While this may be true only for the first year, first, the company will not be paying tax on the land, it will be paying only a "private property tax", which is lower, "on the pipeline itself" (Volcovici "Last" par. 24). Second, this taxes will reduce after seven years and disappear overtime (Volcovici "Last" par. 24). As can be seen, the pipeline will not bring many long term economic benefits to the state.

As many families income are being put in risk, also many expensive lawsuits are being made by the people that is trying to defend what belong to them. Several groups are fighting this pipeline. They have made protests and camps, sent letters, collect firms. They try different strategies to defend their land, environment and water. Some of the peaceful protests were not listen by the supporters of the project, so these groups had to take legal actions. One of these groups are landowners, who as mentioned before are trying to protect their private property. According to an article from *EcoWatch*, "(i)n 2015, more than 100 Nebraska landowners sued TransCanada over the proposed use of eminent domain" (Wilt par. 17). As can be seen the fight to defend what belongs to them started a couple years ago. With the new president that is in office, they had to fight again. In addition, environmental groups and Native Americans are also fighting against the pipeline. They filled a lawsuits against Trumps' Administration because with the approval of Keystone they infringed the National Environmental Policy Act, since they didn't consult to the public, as well as not making an updated evaluation of the environmental Impact of the pipeline (Volcovici "Environmental" par 3). Now, the money that has to be invested for the lawsuits is something to consider. In an article from California Labor and Employment law, was estimated that around \$10'000 was the minimum to invest in a lawsuit. There are several fees to pay such as complaint filing fee, motion filing fee, depositions, experts (Lee). Considering it is the minimum, it is still a high amount of money, besides the time

that a lawsuit could take. People getting into these trouble in order to defend what belongs to them? That is not fair. This pipeline project should definitely be reconsidered.

In summary, this pipeline have negative financial effects. It will compromise many farmer's income. As a result, Nebraska's economy will be threatened. There are going to be high expenses in the construction process. This money could be invested in new energy sources that will not be as energy intensive as the production of tar sands. Besides a lot of these technologies are cleaner than tar sands. In addition, there are also lots of expenses generated by lawsuits that environmentalists, Native Americans and farmers are making in order to defend their land and clean water supply. It is unethical that they have to spend so much time and money to fight this pipeline.

The counterargument

Despite the negative consequences that construction of the Keystone XL pipeline bring, many argue that this project will bring many socioeconomic benefits to the United States. One of the points the supporters make is that the construction of the pipeline will create new jobs for many people. As with any construction project, it will require of a lot of workers to build this pipeline. An analysis by the *U.S. Department of State* reported that this pipeline will create 42,100 jobs during the construction period, from which 16,100 would be direct jobs coming from hiring a construction company or services needed for the construction of the pipeline, and 26,000 will be indirect jobs, coming from working for the goods supplier for the pipeline ("Department" 18). As can be seen, the number of jobs that will be created by the construction could seem to be significantly high.

While it may be true that many jobs will be created for the construction process, the number of permanent jobs created will be considerably low. First of all, the construction of the

pipeline will only last two years. After that period of time, these people will be unemployed again. Second of all, the number of jobs require for the operation of the pipeline is very low. In the same analysis by the *U.S. Department of State*, they reported that only 50 jobs are required for the functioning of the pipeline from which 15 will be temporary contractors and only 35 permanent jobs ("Department" 19). This number is very low for a big project like this. It seem at the beginning that the pipeline will benefit a lot of workers. However, as can be seen, the number of permanent jobs created will only be 35.

In addition to the creation of jobs, many also argue that this pipeline will have a great economic impact in the United States. As the president of the United States, Donald Trump, who signed the executive order for the construction of this pipeline, said that the steel will "com(e) from the United States, or we're not building one.' American steel. If they want a pipeline in the United States, they're going to use pipe that's made in the United States." (Lauter par. 10). This would be of great benefit for the U.S. steel sector.

The president claimed that American Steel was going to be used for the construction of this pipeline but in fact this pipeline will use pipes that were already made in other countries. An spokeswoman from the White House stated that what the president said will not apply to this pipeline. She said "(t)he way that the Executive Order is written is actually ... specific to new pipelines or those that are being repaired, [...] (s)ince [Keystone] is already currently under construction [...] it was hard to go back. Everything moving forward would be all under that executive order" (qtd. in Isidore par. 2). After all, it seems like the material used for the construction of this pipeline will not be from local sources. Therefore, what president Trump said is not true.

Negative Environmental Impact of Keystone XL pipeline

The Keystone XL pipeline project has been of great controversy. Many people have shown their interest toward the construction of the pipeline. At the same time, this project has brought concerns to many. A lot of groups have been protesting against it for a long. They are worry about the damage and negative impact it will have towards the climate. This pipeline project will endanger many areas. **The construction of the Keystone XL Pipeline will be threatening to the environment. It will make global warming worse, endanger wildlife and water life, and create water and air pollution.**

The construction of the Keystone XL pipeline will be harmful to our environment and will aggravate global warming. Global warming is environmental problem that has become of great concern in the past years. Since 1880, the average temperature has increased 1.7 degrees Fahrenheit ("Global"). Green house emission gasses from vehicles had been a great contributor to the increase of the temperature on earth. The construction process of the Keystone XL pipeline, it is estimated to emit "0.24 million metric tons of carbon dioxide (CO₂) equivalents (MMTCO₂e) per year" (United 15). This gas emission will come from vehicles that will be used for the construction as well as any machinery needed for clearing the area and excavation. (United 15). As can be seen, the amount of gasses emitted only for the construction process is considerably large. These numbers are the emissions per year, and it is important to consider the time it will take to complete the project, which is likely to be more than one year.

The construction of the Keystone XL pipeline will not only generate a negative amount of carbon dioxide even before it gets into operation, but also, it will negatively impact the greenhouse gas emission amount once it gets into operation due to consumption. After the completion of the project, the price of gas used for vehicles will reduce which will lead into a

greater consumption of it (Hodson). Once the Keystone pipeline starts operating, for "every barrel of extra oil taken", the "world oil consumption would rise by 0.6 barrels" (Hodson). In the United States, cars are one of the main ways of transportation. The lowering of prices will encourage more driving. This will be an indirect negative impact of the pipeline to greenhouse gases emission. The amount of greenhouse gases emitted by this proposed pipeline before and after the completion of it are to be considered. This project will clearly be harmful to the planet earth.

This pipeline project will also threaten the wildlife of the surrounding area. The Keystone XL pipeline route goes through "the Deep Fork Wildlife area in Oklahoma [...], native prairies, [...] (t)he Sand Hills region in Nebraska" (O'Rourke 8). Taking this route into consideration, the pipeline project will negatively affect many areas that are habitats for many animals. A risk of using pipelines to transport oil is the possibility of leaks or spills. This pipeline will not be an exception. Oil leaks or spills could get to animals easily. This would be toxic and harmful to them. Animals that get some of these spills in their body could try to clean themselves by leaking it, consequently they would be introducing this toxic chemical in their organism ("Environmental" 298). Pipelines' leaks and spills are very common, and animals are defenseless creatures towards these events that may occur. When a sudden spill occurs, many times these animals will not realize and their entire body will end up covered in oil (See Fig. 2). Birds are one of the most affected animals, the oil in their feathers could cause "hypothermia or drowning due to the loss of flotation" ("Environmental" 298). Animals that surround the area will be directly in danger with the construction of this pipeline.

Besides the wildlife that will be threatened by this pipeline, water life will also be in danger. The proposed route for this pipeline project will cross many water bodies (United 15).

During the construction phase of the pipeline some of the consequences "from construction of stream crossings include siltation, sedimentation, bank erosion, sediment deposition" that will damage directly to water areas where fishes and other water organisms live (United 15).

Considering this harmful consequences to many water bodies, it is safe to say that this pipeline project will contaminate and disturb ecosystems of fishes or other organisms that live in water.

Additionally, the risk of a spill or leak will also threaten water life. A spill of oil could make fishes or organisms that live in water experience intoxication ("Environmental" 300). The oil that will go through this pipeline is very toxic to any living creature. If oil gets to a source of water, it will kill many organisms that live in it. On top of that, the contamination it will cause will last for a considerable period of time. According to an article from Auburn University, for an area to recover from a spill it can take some weeks or up to a couple of decades, which is an extensive period of time (Phillips par. 14). In brief, this pipeline project could disturb water resources that surround it, because of the high risk of leaks or spills of this toxic substance will destroy the habitat of water animals.



Fig 2. Love, Chad. "12,000-Gallon Oil Spill: ExxonMobil Pipeline Rupture Affecting Arkansas Wildlife." *Field & Stream*. 2 Apr. 2013 Web. 11 May 2017.

As mentioned before, the route of the pipeline will go through water bodies where aquatic animals live; moreover, it will also go through drinking and irrigation water supplies. The route of this pipeline plans to go through the Nebraska Sand Hills and Ogallala Aquifer, these two are part of the Northern High Plains Aquifer System (NHPAS) ("Environmental" 300). This aquifer system "supplies 78 percent of the public water supply and 83 percent of irrigation water in Nebraska and approximately 30 percent of water used in the United States for irrigation and agriculture" ("Environmental" 300). The NHPAS is a huge water supplies of vital use from domestic use to agricultural use. It feeds the crops of many farms. If this water supplies gets contaminated by any spill or leak of the pipeline, it will cause adverse consequences to the water supply of a significant amount of territory.

It is also important to mention that the Nebraska Sand Hills and Ogallala Aquifer are only one of the states, whose water supply will be in risk; there many other states whom water supplies will also be threaten by this pipeline. For instance, the water supply from the state of Illinois will also be expose to a potential spill from the pipeline. Thor Peterson, the campus sustainability coordinator, in an interview said that there certainly there is risk of the pipeline to spill, and that areas such as the Mohammed Aquifer that could be in risk (Peterson). In the same survey that I conducted I found that most of the people are concern about their water supply and the uses it has in the state. Some of the people's answers about the pipelines going through the state of Illinois are "(p)ipelines ALWAYS break. It will happen eventually. Illinois water runs through very expensive farmland and all water in Illinois leads to the Mississippi and eventually the Gulf. That's where the oil would end up" (Salazar). Also, "(i)n the middle of the country we are more reliant in water reservoirs. These reservoirs are deep underground and supply millions of people with clean drinking water. If pipelines spill or leak, millions of individual's drinking

water can be compromised” (Salazar). People acknowledge the importance of water supply for the state. The mega-pipeline project will go through many states in the United States, where many people’s water resources will be at the risk of a spill or leak.

In addition to the water supply that is in risk of contamination, the air will also suffer from air contamination. While the project is in construction it will generate a lot of pollution. The air quality will be deteriorated by the dust and the vehicles used for the construction (United 25). It is important to note that this is a huge project that will take a considerable amount of time to complete. People that live around the area will be negatively affected by the air pollution. On top of that, once the pipeline is built, it will generate a lot of air contamination. According to an article from the *Center for Climate and Energy Solutions*, after analysis of emissions combustions and manufacture of oil it was concluded “that Canadian oil sands is 17 percent more carbon-intensive than the average oil consumed in the United States” (“Keystone” par. 26). As can be seen, the production of this oil coming from Canada will create more contamination since it will generate more carbon emissions than the average. It was approximated that “U.S. greenhouse gas footprint would increase by 3 million to 21 million metric tons per year” (“Keystone” par. 26). The construction will create lot of pollution, which will negatively impact the air quality of the areas surrounding it.

Overall, the construction of the Keystone XL pipeline will have negative consequences to the environment. Greenhouse emissions will rise up, as a consequence global warming will be worse. This pipeline will also go through habitats of many animals that will be in risk of an oil spill. On top of that, the pipeline route also go through water sources, which directly endangers the water supplies of the surrounding areas. Lastly, once the pipeline starts producing oil, the air quality of the area will be negatively impacted. This pipeline will not be beneficial to the

environment. It is very important to remember that planet earth is the only place where life exists as we know it, therefore taking care of it is crucial. In the long run, this pipeline will generate considerable amount of pollution and will destroy many ecosystems that will not be able to be the same.

Conclusion

In conclusion, the construction of Keystone XL pipeline will have many negative consequences. The culture and the rights of many Native American Tribes will be violated. In addition so far, the project have brought many negative legal and economic impacts to towards many landowners, as well as, Native Americans. And, they will have to keep fighting against it. On top of that, the project will be threatening to the environment. The negative effects this project has and will have toward people and environment will be greater than the instant revenue that it may seem to produce. In the long term, the negative consequences, that this project will cause, may not be reversible, especially towards the environment. Heidi Leuszler, a Parkland Natural Science professor, said in an interview that the pipeline “is mostly focus in short term goals using fossil fuels [...]; fossil fuels can’t be used for much longer” (Leuszler). In her opinion “it’s kind of waste of resources [...] (and) it will cause more pollution and problems that it will solve” (Leuszler). The negative consequences of the pipeline are clear. In the past years, there has been great advances in new technologies. It is time to start shifting towards these new technologies, that are cheaper, and in many cases environmentally friendly.

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