

Hydraulic Fracturing: A Necessary Evil

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Over the past few years, fracking has exploded across the United States and in media outlets, yet very few citizens know what it means. The meaning of fracking is injecting millions of gallons of water laced with chemicals, often times with diesel, into the ground where oil and gas pockets can be pushed up and extracted. The chemicals alone contain carcinogens, bacteria-killing chemicals and chemicals that induce viscosity. Sadly, this is not the end of the process. These chemicals can only be used so many times before they have to be discarded. The water is called co-produced water, and the sites that are designated for this polluted waste water are supposed to be lined. While this process is happening, the ground and water around the fracking area become extremely polluted. The laws and regulations surrounding fracking are very controversial. In Colorado, there have been reports around fracking sites that the neighborhoods' water is catching on fire from methane gas that is being released during fracking. The water is so polluted that it causes major sores if someone takes too many showers with it in a week's time, as well as causing headaches and dizziness. The water also turns brown and stains laundry. However, there is not enough data on wildlife or plant life and how they are faring because per the rules and regulations, scientists are not allowed around the areas until the drilling is finished, and by then, it could be too late.

In order to understand how fracking is affecting the environment and health of locals, we must first understand what fracking actually is. The media has twisted and turned the term *fracking* into an umbrella term that encompasses many things (mainly negative) when that is not the case. According to Darrick Evensen, "the word fracking was originally derived from 'hydraulic fracturing'- a process by which energy companies inject large volumes of water,

sand-based proppant, and chemicals into the earth to fracture energy-bearing rock formations, thus facilitating ‘unconventional’ oil and natural gas extraction” (2014). With the hydraulic fracturing, one of the most controversial issues is the mixture that is used by the companies. In the states that are currently dealing with these issues, there are many regulations being reviewed that relate to the amounts of chemicals used while also protecting the company’s trade secrets. Michael Holloway and Oliver Rudd stated in their findings that “companies have also come to recognize that there are benefits to using environmentally ‘friendly’ chemicals as much as possible” (2013).

The wastewater that is being created by the fracking material has a lot of environmentalists and residents living in these areas worried because the groundwater, which is thought to be safer than it actually is, is being contaminated, causing major health issues in certain areas and causing great concern for the future of our underground water sources. According to Alexia Lane, “groundwater is becoming increasingly important as a secure potable water source as surface waters dwindle and hydrology changes. In fact, many regions of the southern U.S. rely solely on groundwater for their potable supplies” (2013). This evidence alone is what has a lot of environmentalists and “green” companies in an uproar because there is a limited amount of ground water, which many people rely on to survive, yet companies are knowingly poisoning it with no repercussions until lately. Another main concern for the companies is the wastewater disposal. The amount of waste water that is being generated is simply overwhelming the options that we have to dispose of it. Charles Shmidt states that “drillers have found it more cost-effective to invest in centralized and mobile wastewater treatment for recycling and reuse in fracking operations than to discharge into the

environment” (2013). This might seem like a good idea, but it is only a “band-aid” to a large wound since the fracking wastewater can only be reused a finite number of times before it is ineffective. The EPA, the FDA, and the CDC all play a major factor in this dangerous process.

However, Kristi Schwartz makes a valid point, stating that “the nation has become focused on natural gas because of evolving technologies that have allowed gas to be extracted from places that it hasn’t before” (2012). This statement shows that as a nation, America will back an idea until it is no longer a popular or supported issue and then turn on the very same ideas that were believed to be good ideas in the first place. Oil and natural gas combined are responsible for the consumption of almost 60% of U.S. energy. Statistics like the percentages of energy used by the U.S. are what lead people of note in the environmental community to get behind fracking as long as the proper precautions are in place. For example, “in July 2011, future secretary of energy Ernest Moniz spoke out in favor of fracking, as long as certain safety, environmental, and health precautions are taken” (Chapman & Ciment, 2013). This should be the approach that all legislation involving fracking should consider. Focus the energy on not stopping a lucrative and extremely helpful method for boosting our economy but more on how can it be made cleaner and more effective instead of just closing up shop all together.

So, given the mass media’s spin on fracking and all of the side effects of the procedure, one could see where there is such an uproar in the environmental community as to whether fracking should even be able to be continued as a process. However, most of the nation likes the benefits of what fracking does, lowering gas prices giving the U.S. its own natural oil and gas supply. The main question that should always be asked is “Do the benefits outweigh the cost?” Most people do not think that they do at this moment since fracking is such a new concept and

we do not have a complete grasp or understanding of the mechanics, efforts needed to control health issues, or the health issues themselves. However, the Sierra Club's executive director Michael Brune's statement best sums up the procedures of fracking, and that is "I think that in many places we should be suspending gas drilling, simply because we do not have a complete understanding of the risks that are being posed" (Schwartz, 2012). This leaves the topic in a very controversial place with all the negativity surrounding it; it is making it difficult to support fracking if a person is not aware of the benefits and all the natural resources retrieved during the process of hydraulic fracking.

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