Analytical Essay

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To Drill or Not: The Great Lakes

The year is 2012, just two years after the disastrous Deepwater Horizon oil spill in the Gulf of Mexico. The catastrophe destroyed and killed hundreds of encompassing wildlife and marine habitats and species, along with causing extensive damages to tourism and fishing industries that work within the Gulf. This event has shifted many of the pro-drilling supporter's views of drilling within the United States, but in the midst of our economy recovering from the late-2000's financial crisis, gas prices have soared to prices exceeding four dollars a gallon (Price List, 2012). Drilling for gas and oil within our borders may pose great environmental risks, but it also has potential to create thousands of jobs, lower gas and oil prices domestically, decrease our dependence on foreign fuel imports, and increase tax revenue via exports.

One of the most prominent sites to drill within domestic borders is the Great Lakes, where according to the US Geological Survey, an estimated 430 million barrels of recoverable petroleum liquids and 5.2 trillion cubic feet of recoverable natural gas exists (Coleman et.al, 2005). In the year 2002, directional drilling (drilling a slant well to reach a target not directly beneath the drill site) for oil and natural gas under the Great Lakes was banned by state law and in 2005 by federal law (Sheikh, Humphries, Ramseur, and Vann, 2008). The fact that this is not a constitutional ban, however, means that it can be repealed at any time, raising the question of whether directional drilling in the Great Lakes should be allowed or not. There are three main perspectives regarding the issue of directional drilling, each holding different opinions which support or oppose the existing federal ban, along with an alternative idea in renewable energy.

The primary reason that many opponents of directional drilling in the Great Lakes support the 2005 federal ban is because of the potential negative environmental consequences that can occur. When drilling for oil and natural gas, pipelines are at risk to leak or spill from drilling a mud pit, having a containment failure, or from rupturing. Oil spills have the ability to have both acute and chronic impacts on nearby ecosystems. Based on laboratory studies, it is observed that exposure can kill various organisms as well as reduce reproduction, alter development, impair feeding mechanisms, and weaken immunity against disease. In addition to acute impacts, a CRS Report for Congress states that "there is increasing evidence that shows that chronic, low-level exposures to oil contaminants can significantly affect the survival and reproductive success of marine birds and mammals" (Sheikh, Humphries, Ramseur, and Vann, 2008, p. 10). It is also possible that "spills or toxic discharges may degrade water quality, lower dissolved oxygen, contaminate sediments, and alter aquatic vegetation" (p.11). Depending on water flow, the potential impacts of spills vary. For example, Lake Erie and Lake Ontario can replace water that enters their respective bodies of water in approximately three to six years, while Lake Superior which is considered low-flow takes approximately 182 years. (2008).

In addition to the environmental consequences that directional drilling poses, opponents also fear economic consequences. Some of these consequences would include harming the Great Lakes ecosystem, changing some scenic areas, and lowering property values. This does not include the economic cost that would be a result of the necessary clean up, the lost recreation, and lowered water quality (2008).

Proponents of this issue state that directional drilling in the Great Lakes can be beneficial for local, regional, and state economies. If we begin exploring for oil and gas in the Great Lakes, and significant deposits are found, revenue and jobs will be created for the independent drilling

companies. In fact, “according to the U.S. Bureau of Labor Statistics, there was a national average of 5.7 jobs generated per $1.0 million of sales by oil and gas producers in 2002” (p. 9). Additionally, local and state governments in the Great Lakes basin will also be able to generate revenue by signing leases and permits to these independent companies as well as taxing the quantities of gas and oil sold (p. 8).

Senior environmental policy analyst at the Mackinac Center for Public Policy, Russ Harding, states that “adjusted for the price of oil today, the economic benefit of tapping Michigan’s Great Lakes reserves would be $3 billion to $4 billion” (Harding, 2008, p. 1). When asking the Michigan Environmental Science Board to examine if directional drilling under the Great Lakes posed any threat to natural resources, the Board concluded: “‘[T]here is little to no risk of contamination to the Great Lakes bottom or waters through releases directly above the bottom hole portion of directionally drilled wells’” (p. 1). Another reason proponents are in favor of directional drilling in the Great Lakes is because it is a step in the right direction to energy independence. According to US Senator John Kerry, “By reducing our dependence on foreign oil, we not only increase our energy and national security, but we also create jobs” (“Will Increased Oil Drilling Help the US Solve its Energy Crisis?” 2010, p. 1). Kerry also states how "we spend almost one billion dollars every day on foreign oil. Much of it is sent to regimes that are hostile to America. That is money we should be investing here. We need to do what we can to reduce the demand we have for foreign oil and increase the energy sources that we can find here at home” (p. 1).

Aside from the supporters and detractors of directional drilling in the Great Lakes, there are those who believe there can be an alternative to the two: renewable energy. Sources of renewable energy include solar, hydro, and wind, tidal, geothermal, biomass, fuel cells, and

nuclear (Renewable Energy Sources Pros and Cons, 2012). The main claim of proponents of renewable energy is that it is sustainable unlike that of fossil fuels, clean in terms of not releasing pollutants into our air and land, relatively low in maintenance costs, and easy to tap into (2012). Furthermore, it also provides thousands of jobs via the manufacturing and maintenance of the energy converters and helps America as a nation become more energy independent, which is one of the main aspects proponents of on and offshore drilling stress. The negative affect of renewable energy, however, is it is difficult to generate the large quantities of energy from it as opposed to burning fossil fuels, it is too dependent on weather, and the costs to produce the technology come at a very large capital cost in comparison to the drilling of fossil fuels (Bradley, 1998).

Since I live in the center of the Great Lakes basin, this controversial topic impacts my life more than others. Ever since I was a child I've boated, fished, and seen some amazing sunsets and coastlines in the Great Lakes, but if drilling were to take place these experiences may be jeopardized. At the same time, I'm an 18 year old commuting college student who drives to and from school, and with gas prices reaching four dollars a gallon, drilling in the Great Lakes may be quite beneficial to me in lowering the gas prices. Unemployment rates and energy prices are currently at record-setting highs, and during these dire economic times we face in the United States, becoming energy independent while domestically generating jobs and revenue is important. Drilling in the Great Lakes where a substantial amount of oil and gas is known to exist is the best decision in accomplishing this, especially since renewable energy is unreliable and comes with initial technology costs that are too expensive.

References

Bradley, R.L., Jr. (1998). Dirty secrets of renewable energy. *USA Today*. 34+. Retrieved from *General OneFile* database.

Coleman, J.L., Swezey, C.S., Ryder, R.T., Charpentier, R.R., Milici, R.C., Hatch, J.R.…. Schmoker, J.W. (2005). *Undiscovered oil and gas resources underlying the U.S. portions of the Great Lakes, 2005*. Retrieved from: http://pubs.usgs.gov/fs/2006/3049/fs2006-3049.doc

Harding, Russ. (2008). *Great Lakes directional drilling ban should be lifted*. Retrieved from: Mackinac.org

Price List. (2012). http://gasbuddy.com/GB_Price_List.aspx

Renewable Energy Sources Pros and Cons. (2012). Retrieved from: http://www.buzzle.com/articles/renewable-energy-sources-pros-and-cons.html

Sheikh, P.A., Humphries, M., Ramseur, J.R., Vann, A. (2008). *Drilling in the Great Lakes: background and issues* (CRS Report for Congress).

Will increased oil drilling help the US solve its energy crisis? (2010) Retrieved from: Retrieved from http://alternativeenergy.procon.org/view.answers.php?questionID=1255