TO FRACK OR NOT TO FRACK: THE ADVOCACY OVER HYDRAULIC FRACTURING

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INTRODUCTION

An advocate is defined as "a person who publicly supports or recommends a particular cause or policy." Advocacy, especially in the environmental context, can take many forms. There can be advocacy in media, litigation, legislation and even in a person's everyday life. Advocacy can range from the spoken word to full blown media campaigns, legislative campaigns, administrative remedies and large litigation suits. Advocacy tactics used depend on many different factors including, budgetary constraints, experience, organization size, issue being advocated for or against and development of the issue itself. The advocacy forums and techniques used by those for and against hydraulic fracturing vary widely depending on many of these factors. Advocates themselves also vary greatly from an individual person to a multibillion dollar company and many groups and organizations in-between.

Hydraulic fracturing is the center of an ongoing debate in the United States. Proponents and opponents feel very strongly about their side of the issue. Proponents believe, among other things, that this drilling technique will make the United States much more self sufficient in today's energy market, while opponents believe that the benefit may not be worth the risk or that heavy regulation is necessary for safety. This paper attempts to explore the different advocacy techniques used in the battle over hydraulic fracturing beginning with a background of hydraulic

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² Oxford Dictionaries, OXFORD UNIVERSITY PRESS (2011), www.oxforddictionaries.com (last visited May 22, 2011).

fracturing, current laws and regulations in place, past and current litigation, and advocacy tactics of proponents and opponents of hydraulic fracturing.

Ultimately, both sides use the same tactics, but in different ways. Proponents focus on legislative and administrative tactics through lobbying efforts, while the opponents focus more on grassroots public support and individual or small group action to push their goals.

I. Hydraulic Fracturing Background

Hydraulic fracturing (also known as "hydrofracking") is a drilling technique used to stimulate well production for various natural resources, including natural gas.³ Wells are drilled deep underground and then fluids, comprised of water, sand and chemical additives, are forced into the wells at high pressures.⁴ The force of this water fractures rock formations deep underground which allows natural gas to be released.⁵ This process helps to increase the amount of natural gas that can be extracted at a time.⁶ Once the fracturing is done, some of the fluids that were pumped in the ground rise to the surface and are collected and disposed of.⁷ The disposal of this "flowback" water can include discharging into surface water, injecting it underground or properly treating it.⁸

Hydraulic fracturing has been around over 60 years and recently, a relatively new technique called high volume horizontal hydraulic fracturing is being used that combines vertical

³ Hydraulic Fracturing Background Information, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells_hydrowhat.cfm (last visited May 14, 2011).

⁴ *Id*.

⁵ *Id*.

⁶ *Id*.

⁷ *Id*.

[°] Id.

and horizontal drilling with the forced water pressure. The development of more productive drilling techniques has come about, at least in part, because of the movement to reduce dependency on foreign energy resources. Increasing the amount of natural gas harvested is said to be able to help to reduce this dependency. There are also other purported benefits to this drilling technique such as viability of the natural gas industry in the United States as well as job creation and other economic benefits, especially for the localities where the drilling is being done. Benefits of using natural gas over other resources is said to help climate change because natural gas has lower carbon content than other resources. Using more natural gas instead of burning fossil fuels can decrease carbon emissions by more than half of what it is now; however, this is disputed by opponents.

Hydraulic fracturing is being used in at least 28 states and started in the 1940s.¹⁴ The Appalachian Basin area of natural gas includes Devonian and Marcellus shale¹⁵ and is located in the Appalachian Mountain region. The Marcellus shale region begins in southern New York and

⁹ Freeing up Energy: Hydraulic Fracturing: Unlocking America's Natural Gas Resources, American Petroleum Institute.

http://www.api.org/policy/exploration/hydraulicfracturing/upload/HYDRAULIC_FRACTURING_PRIMER.pdf (last visited May 14, 2011).

¹⁰ News Release Apr. 1, 2011: *BLM to Hold Regional Forums on Hydraulic Fracturing in Natural Gas Production*, BUREAU OF LAND MANAGEMENT, www.blm.gov/wo/st/en/info/newsroom/2011/april/NR_04_01_2011.html (last visited May 21, 2011).

¹¹AMERICAN PETROLEUM INSTITUTE, http://www.api.org/policy/exploration/hydraulicfracturing/ (last visited May 22, 2011); ENERGY IN DEPTH, http://www.energyindepth.org/in-depth/frac-in-depth/why-and-how/ (last visited May 22, 2011).

¹² Freeing up Energy, supra note 9.

¹³ Shale Gas and America's Future, AMERICAN CLEAN SKIES FOUNDATION, http://www.vimeo.com/16303687, (last visited May 22, 2011).

¹⁴ 2010 Survey Regarding Hydraulic Fracturing, JOINT LANDOWNERS COALITION OF NEW YORK, http://www.jlcny.org/site/attachments/article/244/2010%20Survey%20Hydraulic%20Fracturing%20by%20State.pdf last visited May 22, 2011).

¹⁵ Thomas F. Schaller, *Hydraulic Fracturing: A Tale of corporate Power and Citizen Powerlessness*, THE BALTIMORE SUN, Mar. 8, 2011, *available at*: http://articles.baltimoresun.com/2011-03-08/news/bs-ed-schaller-20110308_1_shale-fracking-natural-gas.

extends into Pennsylvania and West Virginia.¹⁶ Drilling areas also include the Fayetteville Shale in Arkansas,¹⁷ Barnet Shale in North Texas,¹⁸ Haynesville Shale in parts of East Texas and Louisiana, Anadarko Basin in Oklahoma and parts of Texas¹⁹ and the Delaware Basin in Texas.²⁰ Energy companies such as Halliburton, Chesapeake Energy, and Weatherford are some of the companies in this industry.²¹

With the proposed benefits also comes some risks and other problems. The safety of drinking water is a main concern of many opponents because of the chemicals used in the fracking fluid.²² One scientific study by Duke University found methane in drinking water from hydraulic fracturing, but did not find any evidence of fracking fluid contamination.²³ Not only are the chemicals themselves are a concern, the methane and other gases released by fracturing the rock is alarming to some.²⁴ Hydraulic fracturing has been suspected as the cause of many cases of water contamination.²⁵ Some of this is concerns about the fluids left underground that do not come back up for collection and the other concern is the ability of wastewater treatment

http://www.hydraulicfracturing.com/Pages/information.aspx (last visited May 21, 2011); and WEATHERFORD INTERNATIONAL LTD., www.weatherford.com (last visited May 21, 2011).

¹⁶ CHESAPEAKE ENERGY CORPORATION, http://www.askchesapeake.com/Marcellus-Shale/Pages/default.aspx?utm_source=OPM&utm_medium=CPC&utm_content=Marcellus&utm_campaign=Paid_Search&gclid=CKSx0I7ej6gCFape7AodmxH8Cg (last visited May 22, 2011).
¹⁷ Id

¹⁸ CHESAPEAKE ENERGY CORPORATION, http://www.askchesapeake.com/Barnett-Shale/Pages/information.aspx#tabtwo (last visited May 22, 2011).

¹⁹ Assessment of Undiscovered Oil and Gas Resources of the Anadarko Basin Province of Oklahoma, Kansas, Texas, and Colorado, 2010, UNITED STATES GEOLOGICAL SOCIETY, Fact Sheet 2011-3003 (Jan. 2011), available at http://pubs.usgs.gov/fs/2011/3003/pdf/FS11-3003.pdf.

²⁰ Assessment of Undiscovered Oil and Gas Resources of the Permian Basin Province of West Texas and Southeast New Mexico, 2007, UNITED STATES GEOLOGICAL SOCIETY, Fact Sheet 2007-3115 (Feb. 2008), available at http://pubs.usgs.gov/fs/2007/3115/pdf/FS07-3115_508.pdf.

²¹ HALLIBURTON, http://www.halliburton.com/ (last visited May 21, 2011).; CHESAPEAKE ENERGY CORPORATION, http://www.chk.com/Pages/default.aspx (last visited May 21, 2011),

²² Hydraulic Fracturing: Unsafe, Unregulated, PUBLIC CITIZEN FOUNDATION, www.citizen.org\page.aspx?pid=4704 (last visited May 22, 2011).

²³ STEPHEN G. OSBOURNE, ET AL., METHANE CONTAMINATION OF DRINKING WATER ACCOMPANYING GAS-WELL DRILLING AND HYDRAULIC FRACTURING (May 9, 2011), *available at* www.biology.duke.edu/jackson/pnas2011.html. ²⁴ http://shadbushcollective.org/?page_id=134.

²⁵Hydraulic Fracturing of Oil and Gas Wells, EARTHWORKS, http://www.earthworksaction.org/hydfracking.cfm (last visited May 22, 2011).

plants to treat the contaminated flow-back water. It is alleged that some of these facilities cannot treat the radioactive material to comply with safe drinking water standards.²⁶ One reporter's investigation found that wastewater that has not been properly treated is being discharged into streams and rivers that are sources for drinking water.²⁷ But, as another reporter noted, there are also other sources of contamination including spills at the drilling site or spills during transportation of the chemicals or contaminated water.²⁸

General nuisances such as noise and traffic are also concerns. The large amount of equipment and supplies must be hauled to the well pads by truck.²⁹ The millions of gallons of water and additives must also be hauled to the drilling sites.³⁰ To accommodate this, the drilling pads are larger than in other drilling techniques.³¹ Sometimes containment ponds are made right at the site to store the wastewater from hydraulic fracturing.³² Some drilling sites may also install tanks and fixtures to purify the harvested gas before it is transported.³³ Yet another concern is the use of over five-million gallons of water at each location.³⁴ The use of this much water is a concern to the ecosystem from which it is drawn.³⁵ Sometimes the water is obtained from sources nearby the drilling site.³⁶

The practice of hydraulic fracturing has created a growing debate among proponents and opponents. With this debate there comes advocacy and promotion of each side's agenda. These

²⁶Ian Urbina, *Regulation Lax as Gas Wells' Tainted Water Hits Rivers*, NEW YORK TIMES (Feb. 26, 2011), *available at* http://www.nytimes.com/2011/02/27/us/27gas.html?_r=1&src=me&ref=homepage.

²⁸ Abraham Lustgarten, *Setting the Record Straight on Hydraulic Fracturing*, PRO PUBLICA, (Jan. 12, 2009), *available at* http://www.propublica.org/article/setting-the-record-straight-on-hydraulic-fracturing-090112
²⁹ *What the Frack?*, THE SHADBUSH ENVIRONMENTAL JUSTICE PROJECT, http://shadbushcollective.org/?page_id=134

⁽last visited May 22, 2011).

³⁰ *Id*.

³¹ *Id*.

³² *Id*.

³³ *Id*.

³⁴ *Id*.

³⁵ *Id*.

³⁶ *Id*.

agendas include changing existing laws and regulations to allow for more regulation, less regulation or even banning hydraulic fracturing all together.

II. CURRENT LAWS AND REGULATIONS

Laws and regulations governing hydraulic fracturing have not yet had time to develop, both at the federal and state levels. Many laws and regulations that govern the process are those that have a general applicability to drilling, injection and wastewater disposal. There are, however, many laws proposed specifically targeting hydraulic fracturing. These proposals range from a complete ban to simple regulation.

a. Federal

There are relatively few federal laws and regulations governing the new use of hydraulic fracturing. Many are just starting to introduce laws and regulations for this industry. The disposal of the flowback water or the water that is retrieved after the hydraulic fracturing process is governed by the National Pollutant Discharge Elimination System (NPDES),³⁷ pursuant to the Clean Water Act, ³⁸ and requires that the flowback water be treated and meet certain standards before it is disposed of. This treatment of the water is usually done at a wastewater treatment facility.³⁹ The regulations require companies to obtain permits to dispose of this water.⁴⁰ If

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³⁷ Regulation of Hydraulic Fracturing by the Office of Water, U.S. ENVIRONMENTAL PROTECTION AGENCY, http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells_hydroreg.cfm#cwa.

³⁹ *Hydraulic Fracturing Background Information*, U.S. ENVIRONMENTAL PROTECTION AGENCY, http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells hydrowhat.cfm.

⁴⁰ Treatment and Discharge of Wastewater from Shale Gas Extraction, U.S. ENVIRONMENTAL PROTECTION AGENCY, http://cfpub.epa.gov/npdes/hydrofracturing.cfm (last visited May 21, 2011).

untreated flowback water is disposed of in surface waters, it is regulated separately by the Clean Water Act.⁴¹

Regulation of hydraulic fracturing under The Safe Water Drinking Act (SWDA) has been an area of debate. Under 42 U.S.C. § 300h, states are required to develop underground injection control standards that meet minimum standards set by the EPA. ⁴² These programs are to prevent underground injections from contaminating water sources. ⁴³ If a state developed plan meets the EPA's standards, the state will have primary responsibility to regulate underground injections. Otherwise, the EPA is required to be responsible for those states that do not have adequate programs. ⁴⁴ One of the standards requires a permit process for underground injections. ⁴⁵ An underground injection is defined by the act as "the subsurface emplacement of fluids by well injection." ⁴⁶ Many in the industry and regulatory community felt that hydraulic fracturing should not fall under this category because the fluids injected were partially extracted and properly disposed of. ⁴⁷

On March 4, 1994, the Legal Environmental Assistance Foundation petitioned the EPA to withdraw approval of Alabama's underground injection control program because it didn't regulate hydraulic fracturing, which they argued should be regulated under the SWDA. 48 The

⁴¹ Attachment to memorandum from James Hanlon, Director of EPA's Office of Wastewater Management to the EPA Regions titled, *Natural Gas Drilling in the Marcellus Shale under the NPDES Program*, U.S. ENVIRONMENTAL PROTECTION AGENCY, (Mar. 16, 2011), *available at* http://www.epa.gov/npdes/pubs/hydrofracturing_faq.pdf.

⁴² 42 U.S.C. § 300h.

⁴³ *Supra* note 37.

⁴⁴ 42 U.S.C. § 300h(d)(1)(A); 40 C.F.R. §§ 141-149.

⁴⁵ 42 U.S.C. § 300h.

⁴⁶ 42 U.S.C. § 300h(d)(1)(A).

⁴⁷ Keith B. Hally, *Hydraulic Fracturing: Regulation Under the Safe Drinking Water Act*, OIL & GAS LAW BRIEF (Mar. 7, 2011), *available at* http://www.oilgaslawbrief.com/hydraulic-fracturing/is-the-epa-attempting-to-enactnew-hydraulic-fracturing-regulations-by-posting-new-requirements-on-i/.

⁴⁸ Legal Environmental Assistance Foundation, Inc. v. U.S. EPA, 118 F.3d 1467, 1471 (11th Cir. 1997).

11th Circuit ruled in LEAF's favor, but the EPA didn't amend its regulations or require states outside the 11th Circuit to regulate hydraulic fracturing under the SWDA.⁴⁹

The 2005 Energy Policy Act amended the SWDA to exclude hydraulic fracturing unless the fracturing fluids contained diesel. EPA posted a notice on their website after the Energy Policy Act stating that hydraulic fracturing using diesel fuel must receive prior authorization from the Underground Injection Control Program. The Independent Petroleum Association of America and U.S. Oil and Gas Association filed suit in the District of Columbia over the statement alleging that the EPA did not follow proper rulemaking procedures to implement this required authorization. The EPA has moved to dismiss the suit because, they argue, the web posting by the EPA is not a final action. A decision by the Court has not been yet reached.

There is also legislation proposed called the FRAC Act, or Fracturing Responsibility and Awareness of Chemicals Act.⁵⁵ It did not become law when first introduced to Congress, but was reintroduced to the current Congress and is currently in committee. ⁵⁶ The act seeks to repeal the exception for hydraulic fracturing under the SWDA.⁵⁷

b. States

Although many states have laws that may regulate hydraulic fracturing, the most notable are Pennsylvania and Texas where hydraulic fracturing is currently being performed and New

⁴⁹ *Id.* at 1478.

⁵⁰ Regulation of Hydraulic Fracturing by the Office of Water, U.S. ENVIRONMENTAL PROTECTION AGENCY, http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells_hydroreg.cfm#cwa (last visited May 21, 2011).

⁵¹ *Id*.

⁵² Independent Petroleum Association of America v. EPA, D.C. Cir. No. 10-233 (filed Aug. 12, 2010).

⁵³ *Id*.

⁵⁴ *Id.* (as of May 18, 2011 when the author last checked PACER for updated information).

⁵⁵ Fracturing Responsibility and Awareness of Chemicals Act, S. 1215, 111th Congress 2011 ("FRAC Act") (Introduced in 111th Congress in 2009. Congress adjourned before taking any action on the legislation; reintroduced in 2011 by U.S. Reps. Jared Polis and Diana DeGette, both from Colorado, and New York's Maurice Hinchey).

⁵⁶ FRAC Act Reintroduced March 24, 2011 HR 1084 112th Congress. The Bill is currently with the Subcommittee on the Environment and Economy.

⁵⁷ FRAC Act, *supra* note 55.

York which is an area currently being considered for development of natural gas wells using the hydraulic fracturing process.

1. New York

In 2010, Governor David Patterson of New York issued an Executive Order mandating that no permits be issued for the newer technology of high-volume hydraulic fracturing until a study on the technology has been done. The New York Department of Environmental Conservation (DEC) is due to issue the report on June 1, 2011. The DEC, however, has made claims that previous acts of horizontal drilling and hydraulic fracturing in oil wells has been well-regulated and there have been no instances of contamination in New York. At the same time, there have been bills introduced to the New York legislature including those titled: "Moratorium on Disposal of Fluids used in Hydraulic Fracturing Occurring Outside the State until 120 Days after Federal EPA Issues a Report Thereon; a bill that requires the promulgation of regulations requiring treatment works to test radioactive waste from hydraulic fracturing operations to test for radioactivity; and, a bill that prohibits the use of hydraulic fracturing in the extraction of oil and gas.

2. Pennsylvania

In Pennsylvania, those that want to extract gas with hydraulic fracturing must obtain drilling permits, namely a Water Obstruction and Enforcement Permit and an Earth Disturbance

⁵⁸ Executive Order 41, 9 N.Y.C.R.R. 7.41 (Dec. 13, 2010).

⁵⁹ *Id*.

 $^{60 \,} Id$

⁶¹ A. 300-2011, 234th Leg. (N.Y. 2011) (this bill was referred to committee and is currently amended and recommitted to the Environmental Conservation Committee).

⁶² S. 4251A-2011, 234th Leg. (N.Y. 2011) (this bill is currently in the Environmental Conservation Committee).

⁶³ S. 4220-2011, 234th Leg. (N.Y. 2011) (this bill is also currently in the Environmental Conservation Committee).

Permit.⁶⁴ They must also implement a satisfactory preparedness and contingency plan.⁶⁵ There is also a regulation that requires that prior to generation of waste, the well operator shall prepare and implement a plan under § 91.34 of the Pennsylvania Code setting forth the nature of the activity and the nature of the preventative measures taken to comply with certain activities including hydraulic fracturing. ⁶⁶ There are also regulations that govern the use of pollutants. ⁶⁷ Proposed legislation in Pennsylvania includes an Act that provides for a statewide moratorium on natural gas drilling in the Marcellus Shale. ⁶⁸ This bill has been referred to the Environmental Resources and Energy Committee. ⁶⁹

3. Texas

In Texas, the Texas Railroad Commission (RRC) issues permits for oil and gas wells and monitors well drilling in the state as well at completion, production and plugging operations.⁷⁰ The RRC has strict requirements such as requiring multiple layers of steel casings and cement to protect groundwater.⁷¹ Proposals in Texas include an act that requires disclosure of the chemicals and other ingredients of the fluids used in fracturing;⁷² and a bill requiring adoption of rules that require companies to put a tracer substance in the fracking fluid so that it can be traced to its source in the event of spills and contamination.⁷³

⁶⁴ Amy Sinden, Regulation of Hydraulic Fracturing (or Lack Thereof) Under the Safe Drinking Water Act, available at http://www.temple.edu/environment/NRDP_pics/shale/presentations_TUsummit/Sinden.pdf (last visited May 22, 2011).

⁶⁵ *Id*.

⁶⁶ 25 Pa. Code § 91.34; 25 Pa. Code § 78.55.

⁶⁷ Sinden, *supra* note 64 at 14; 25 PA Code § 91.34 (2008)

⁶⁸ S.B. 906, 195th Assembly (Pa. 2011).

⁶⁹ *Id*.

⁷⁰ Tex. Nat. Res. Code Ann. § 86.042 (West 2011).

⁷¹ Texas Regulations Protect Surface and Groundwater, INTERSTATE OIL AND GAS COMPACT COMMISSION, http://groundwork.iogcc.org/topics-index/hydraulic-fracturing/regulations/texas.

⁷² H.B. 3328, 82d Leg. (Tex 2011) (filed Mar. 11, 2011, testimony taken in committee on May 19, 2011).

⁷³ S.B. 772, 82d Leg. (Tex 2011) (Introduced Feb. 18, 2011 and referred to Natural Resources Subcommittee).

c. Local Governments and Zoning

Zoning allows towns and municipalities to regulate how the land within their borders is used. ⁷⁴ Zoning can affect hydraulic fracturing by regulating where drilling can be done and how large a drilling operation can be as well as regulate where wells and well pads can go in keeping with the towns zoning goals. ⁷⁵ Local zoning and land use codes can, at a minimum, designate which areas can be used for gas well activities, but it is not known whether local zoning codes can make specific limitations on site development. ⁷⁶ There are also other zoning type regulations that can be imposed at the local level such as road restrictions that can limit hydraulic fracturing activities. ⁷⁷ Zoning is a level of protection that local governments can offer to protect their residents. ⁷⁸

With the general newness of this debate, laws and regulations, including zoning, are just beginning to be implemented in some areas, while other areas, such as New York, are waiting for studies to be done before allowing hydraulic fracturing in the area.

III. LITIGATION

Other than LEAF v. EPA mentioned above, there are few lawsuits that have been decided, probably because of the relatively new use of the high-volume drilling technology. In the Middle District of Pennsylvania, Berish and other property owners filed a suit against a drilling company that included claims under the Hazardous Sites Cleanup Act, negligence,

⁷⁴ Zoning Basics, PHILADELPHIA ZONING CODE COMMISSION, http://www.zoningmatters.org/facts/primer.

⁷⁵ Heather Blaikie et al., *Zoning and the Marcellus Shale*, 12 (Fall 2010), *available at* http://cce.cornell.edu/EnergyClimateChange/NaturalGasDev/Documents/City%20and%20Regional%20Planning%2 0Student%20Papers/CRP5072 Zoning%20Final%20Report.pdf.

⁷⁶ *Id.* at p. 17.

⁷⁷ *Id.* at p. 19.

⁷⁸ *Id.* at p. 18. Zoning requirements is a broad topic that requires lengthy and in-depth research. The author has specifically chosen not to fully develop this topic as it is not the focus of the paper.

private nuisance, strict liability, breach of contract, fraudulent misrepresentation, medical monitoring trust funds and gross negligence.⁷⁹ The drilling company's activities caused the property owner's water to become contaminated and lowered their property value. The court dismissed emotional distress claims but allowed the plaintiff's claims for strict liability. The action is still pending in the lower court.⁸⁰

Another case in the same district also involves a property owner's claim against a drilling company. They asserted the same claims as in Berish, and the drilling company filed a motion to dismiss. The Court upheld the challenged claims under the Hazardous Sites Cleanup Act and punitive damages. ⁸¹ These and the remaining claims are still pending. ⁸²

The use of litigation in this debate is relatively scarce at this time. Current pending actions may lead the way to further litigation depending on their results and on the development of hydraulic fracturing in general.

IV. PROPONENTS

Major proponents of hydraulic fracturing are energy companies, drilling companies and government representatives although there are individual supporters as well.⁸³ Proponents emphasize the benefits of this type of drilling which include less dependence on foreign energy sources. This appeals to many Americans because of the ever-increasing prices of energy and gas and because of the threat of war over these resources or war limiting these resources.

⁷⁹ Berish v. Southwestern Energy Production Co., ___ F. Supp. 2d ___, 2011 WL 382420 (M.D. Pa. 2011).

⁸⁰ *Id*.

⁸¹ Florentino v. Cabot Oil & Gas Corporation, ___ F. Supp. 2d ___, 2010 WL 4595524 (M.D. Pa. 2010).

⁸² Id.

⁸³ Diane Langly, *Politics Muddy Debate Over Hydraulic Fracturing Risks*, DRILLING CONTRACTORS (May 4, 2011), *available at* http://www.drillingcontractor.org/politics-muddy-debate-over-hydraulic-fracturing-risks-9331.

Allowing this drilling will also provide other economic benefits such as increased jobs in drilling and related companies.84

A. Information

Information dissemination is a prevalent tactic used by both sides of this debate. Energy companies have websites containing information on hydraulic fracturing.⁸⁵ Much of the content contains information about what hydraulic fracturing is, what its benefits are and why it is safe. 86 For example, Chesapeake Energy's website announces hydraulic fracturing as a "proven technological advancement," and energy is being "safely produced." API Energy's website states that hydraulic fracturing "is critically important to producing at home more of the oil and natural gas" and threatens that it is the only way for America to access its resources. 88 Companies have available, fact sheets, pamphlets, videos and links to other informational websites. 89 Chesapeake Energy highlights a program called "GreenFrac" on their website that outlines their plan and efforts at making hydraulic fracturing more environmentally conscious. 90

On a more individual level, Chesapeake Energy participates in taking environmental groups and residents on site visits and holds small group information sessions trying to show these groups that their company is "trying to do the right thing." There have also been seminars and conferences offered to educate virtually anyone on hydrofracking. 92 Seminars on

⁸⁵ See, e.g., chk.com, hydraulicfracturing.com, and Halliburton.com.

⁸⁶ Hydraulic Fracturing, ENERGY TOMORROW, http://energytomorrow.org/issues/energy-security/throughout-theworld/hydraulic-fracturing/.

⁸⁷ CHESAPEAKE ENERGY CORPORATION, http://www.hydraulicfracturing.com/Pages/information.aspx (last visited May 22, 2011).

⁸⁸ AMERICAN PETROLEUM INSTITUTE, http://www.api.org/policy/exploration/hydraulicfracturing/ (last visited May

⁸⁹ See, e.g., chk.com, hydraulicfracturing.com, and Halliburton.com.

⁹⁰ GreenFrac, www.hydraulicfracturing.com/green-frac/pages/information.aspx (last visited May 21, 2011).

⁹¹ Shale Gas and America's Future, AMERICAN CLEAN SKIES FOUNDATION, http://www.vimeo.com/16303687, (last visited May 22, 2011).

⁹² See INTEGRATED PETROLEUM TECHNOLOGIES, INC., http://www.iptengineers.com/IPT-Seminars.HTML (last visited May 22, 2011); Video: Horizontal Drilling and Hydraulic Fracturing, CHESAPEAKE ENERGY CORPORATION,

specific technology have been held by Integrated Petroleum Technologies in may locations in 2011. There was also a conference on some of the more technical aspects. This event had many fracking companies with exhibits, including Halliburton. Promoters also present at public meetings. For example, Western Energy Alliance, a trade association, along with representatives from Halliburton and Mesa Energy Partners (an Oil & Gas development and production partnership) presented at a public meeting held by the Bureau of Land Management in Denver, Colorado. All of these tactics attempt to educate about the benefits of hydraulic fracturing and reasons it should be allowed.

B. Media

Media is another avenue used by both sides. Media has and always will be there to point out controversies so good media planning is important to proponents. Drilling companies, under fire from the public and media for not disclosing the chemicals they use, have begun to issue news releases to the media announcing their release of information on the chemicals they use. ⁹⁷

Others have agreed to place their chemicals on a registry available to the public. ⁹⁸ Releasing this data seems to have quieted some of the complaints about fracking chemical uses, although some

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http://www.youtube.com/watch?v=DOZKTbjJb5w; http://atlasenergyresources.com/media/horizontal_shale.aspx (last visited May 22, 2011).

⁹³ INTEGRATED PETROLEUM TECHNOLOGIES, http://www.iptengineers.com/IPT-Seminars.HTML (last visited May 22, 2011).

⁹⁴ SOCIETY OF PETROLEUM ENGINEERS, http://spe.org/events/hftc/index.php (last visited May 22, 2011).
95 Id

⁹⁶ WESTERN ENERGY ALLIANCE, http://westernenergyalliance.org/wp-content/uploads/2009/05/News-Release-Hydraulic-Fracturing-Proven-Safe-and-Critical-to-Nation%E2%80%99s-Energy-Supply-.pdf (last visited May 21, 2011).

⁹⁷ Press Release: Chesapeake Energy Corporation, Chesapeake Energy Corporation Provides Full Disclosure of Chemicals Used in the Hydraulic Fracture Well Completion Process Through a National Publicly Accessible Registry (Apr. 11, 2011), available at http://www.4-traders.com/CHESP-ENEGY-12055/news/CHESP-ENEGY-Chesapeake-Energy-Corporation-Provides-Full-Disclosure-of-Chemicals-Used-in-the-Hydrauli-13599373/.

⁹⁸ Stephen Power, *Toxins Found in Gas Drilling Fluids*, THE WALL STREET JOURNAL (Apr. 18, 2011), http://online.wsj.com/article/AP41ced3328c104ac2ad2231177bf15ae0.html.

want chemical disclosure mandatory. 99 Most media relations by drilling companies is defensive as the media has kept this issue in the spotlight, mostly by negative articles on hydraulic fracturing. 100 Even fictional television shows such as CSI have put a negative spin on hydraulic fracturing. 101

Social media, ¹⁰² in today's age, is another important tool that is used more by opponents than proponents of hydraulic fracturing. There is at least one blog, however, in support of hydraulic fracturing on the Energy Tomorrow website. 103 This blog posts questions and answers by various bloggers, and is hosted by Chesapeake Energy. Proponents of hydrofracking do not appear to use other forms of social media in any noticeable amount. 104

Use of media by proponents seems to be more often a defensive tactic, even in the case of announcing chemical use. Since the media seems to focus on issues that reflect negatively on hydraulic fracturing, it is likely promoters will have to continue their defensive strategies.

C. Legislative and Administrative Tactics

Legislative and administrative advocacy tactics are used more widely by companies and groups with larger budgets, especially proponents of hydraulic fracturing. On this side of the debate, advocates seek to limit or stop regulations or laws that are introduced to stop or limit hydraulic fracturing. 105 For example, representative Dick Cheney and Halliburton (his former

Facebook, Twitter, blogging, etc.

⁹⁹ See, Kate Galbraith, Hydraulic Fracturing Bill Could Force Disclosure, THE TEXAS TRIBUNE (Mar. 24, 2011), available at http://www.nytimes.com/2011/03/25/us/25ttfracking.html.

¹⁰⁰ Pamela Giblin, Hydraulic Fracturing: The Media Campaign and Federal Initiatives, AMERICAN COLLEGE OF ENVIRONMENTAL LAWYERS (Feb. 9, 2011), available at http://www.acoel.org/2011/02/articles/energy/hydraulicfracturing-the-media-campaign-and-federal-initiatives/.

Rob Port, CSI Episode Smears Hydraulic Fracturing (Nov. 15, 2010), available at Sayanythingblog.com/entry/csi-episode-smears-hydraulic-fracturing/.

¹⁰³ ENERGY TOMORROW, http://blog.energytomorrow.org/2011/04/hydraulic-fracturing-information-online-1.html (last visited May 22, 2011).

Author's Facebook search for hydrofracking turned up no results for proponents; Author could not locate a Facebook page for Chesapeake Energy.

¹⁰⁵ See Jon Campbell, Fiala Speaks Out Against Hydraulic Fracturing Moratorium (Dec. 6, 2011), available at http://www.pressconnects.com/article/20101206/NEWS01/12060353/Fiala-speaks-out-against-hydraulic-fracturing-

employer) supported and helped to enact the 2005 Energy Act that confirmed the exemption of hydraulic fracturing from regulation by the EPA under the Safe Water Drinking Act. ¹⁰⁶ Political influence can be quite effective in getting results. Lobbying to gain political support is the way advocates can get bills passed or not passed depending on which way benefits their cause, and the natural gas industry has increased their lobbying efforts. ¹⁰⁷ The large companies that make up a big section of promoters of hydraulic fracturing have the financial resources to lobby governmental representatives and influence policymaking. ¹⁰⁸ Promoters are also not without administrative techniques to aid their cause. When regulations are proposed, parties can submit comments to these to support or attempt to change proposed regulations. ¹⁰⁹ They can also bring suits for review of regulations if they believe they were not promulgated properly or violate a statute. ¹¹⁰ Legislative and administrative tactics are also relatively young in their development. However, as this debate develops, so will laws and regulations.

D. Litigation and other Tactics

Litigation can be useful in the legislative arena to challenge laws and regulations, for example, or to sue for being wronged by a company. Promoters of hydraulic fracturing, however, have and will continue to defend the use of this technology where they are parties and

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moratorium; Daniel Person, *Fracking Bill Dead in Committee*, BUZEMAN DAILY CHRONICLE (Feb. 4, 2011), available at http://www.bozemandailychronicle.com/news/article_ffdf5c3c-2ff8-11e0-89ae-001cc4c002e0.html ¹⁰⁶ Casey Junkins, 'Haliburton Loophole' False, Lawyer Claims, THE INTELLIGENCE WHEELING NEWS-REGISTER (Dec. 16, 2010), available at http://www.theintelligencer.net/page/content.detail/id/549886/-Halliburton-Loophole-False--Lawyer-Claims.html?nav=515. This has been coined as the "Halliburton Loophole" and is criticized by many.

¹⁰⁷ Deep Drilling, Deep Pockets: Expenditures of the Natural Gas Industry in New York to Influence Public Policy, Part II, NEW YORK COMMON CAUSE (April 2011), available at http://www.commoncause.org/atf/cf/%7Bfb3c17e2-cdd1-4df6-92be-bd4429893665%7D/CC_REPORT_FINAL.PDF.

Eric Waeckerlin, *EPA's Science Advisory Board's Draft Report Highlights Why Flexible State-based Regulation of Fracking is Required*, FRACKING INSIDER (May 12, 2011) *available at* http://www.frackinginsider.com/. Administrative Procedure Act, 5 U.S.C. § 702.

continue to attempt to file briefs in cases where they are not a party but have an interest. ¹¹¹ For example, hydraulic fracturing companies have come under suit with accusations of well contamination. ¹¹² These companies must defend these suits for more than just losing the suit, they must defend their claims that no there has not been a case of water contamination from hydraulic fracturing.

Another tactic that is mostly available only to hydraulic fracturing companies is money. Although money is useful for other advocacy tactics, these companies must pay for leases to use the land of residents to drill the wells that produce natural gas. 113 Energy companies claim they have paid many citizens royalties for use of their land to drill and have supported communities in which they are present. 114 For example, Chesapeake Energy claims to have paid almost \$2 billion in royalties to landowners for their drilling of Marcellus shale 115 and \$24 million in royalties to landowners in the Barnett shale areas. 116 In an economy like today, thoughts of royalty payments for allowing a few trucks on your land and a well, seems like a good idea. This is an effective tactic that discusses one of the major concerns people have in their lives in general...money.

 $^{^{111}}$ See, e.g., Brief of the Texas Oil & Gas Association, amicus curiae, Coastal Oil & Gas Corporation v. Garza Energy Trust (Sup. Ct. Tex. July 1, 2005), available at

http://www.supreme.courts.state.tx.us/ebriefs/05/05046603.pdf.

¹¹² See cases supra notes 48, 79 and 81.

¹¹³ Marcellus Shale, PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, http://www.dep.state.pa.us/dep/deputate/.minres/oilgas/new_forms/marcellus/0100-FS-

DEP4217% 20Marcellus% 20Shale1.pdf (last visited May 22, 2011).

¹¹⁴ Chesapeake Energy Corporation, http://www.chk.com/community/pages/default.aspx (last visited May 21, 2011).

¹¹⁵ CHESAPEAKE ENERGY CORPORATION, http://www.askchesapeake.com/Marcellus-

Shale/Pages/default.aspx?utm_source=OPM&utm_medium=CPC&utm_content=Marcellus&utm_campaign=Paid_Search&gclid=CKSx0I7ej6gCFape7AodmxH8Cg (last visited May 21, 2011).

¹¹⁶ CHESAPEAKE ENERGY CORPORATION, http://www.askchesapeake.com/Barnett-Shale/Pages/information.aspx#tab-two (last visited May 21, 2011).

Overall, the main advocacy tactics that hydraulic fracturing supporters have is political influence and lobbying. This is an aim right at the heart of laws and regulations that can affect them. They do not, however, rely on this alone. Since they need people to lease their land for wells, they need enough individuals and landowners support so they have places to drill. Their blogs and websites are useful in distributing their information. For media and litigation, they will have to continue to defend their drilling practices until there is a resolution. Proponents will have to use effective advocacy techniques to both be able to perform high-volume hydraulic fracturing and prevent over-regulation that would make it unprofitable.

V. OPPONENTS

Opponents of hydraulic fracturing have major concerns about the environmental impact of hydraulic fracturing. Opponents state concerns with the safety of hydraulic fracturing and its potential to contaminate groundwater. They claim that the chemicals used by drilling companies are not fully extracted from the ground and the chemicals are toxic and carcinogenic. They are concerned about land and groundwater contamination by the fracking fluid and the methane from the wells themselves. They are also concerned that energy and drilling companies will not take necessary safety precautions or that any precautions taken, no matter how drastic, will be enough to prevent environmental hazards. Some feel that there is not enough regulation out there to require drilling companies to adopt safe practices. The actual drilling and extracting process, they claim, will also cause pollution because of the

¹¹⁷ Hydraulic Fracturing 101, EARTHWORKS, http://www.earthworksaction.org/FracingDetails.cfm (last visited May 22, 2011).

¹¹⁸ *Id*.

¹¹⁹ *Id*.

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¹²¹ No Fracking!, http://nofracking.com/ (last visited May 12, 2011).

¹²² *Id*.

numerous trucks that are needed to travel back and forth to the wells, the release of natural gas into the atmosphere if the pressure is too high on the well and the contamination of water in the process. Opposition to hydraulic fracturing has a large grassroots movement but is also supported by larger environmental groups as well as a variety of others.

A. Information

Information distribution is a major part in the opposition to hydraulic fracturing. There are many websites out there against hydraulic fracturing. They consist of sites that are one page statements of position¹²⁴ to well developed sites alone¹²⁵ or portions of sites devoted to broader concerns.¹²⁶ One site lists all the safety claims of promoters and explains why they are "myths."¹²⁷ The site also contains links about current actions and legislation going on.¹²⁸ A lot of information is also distributed through meetings, information sessions, panels and conferences.¹²⁹ Groups focused on the environment as a whole, and not just hydraulic fracturing, have provided education and information on the topic.¹³⁰ Some of the local chapters of the environmental group, Sierra Club, offer viewings of the movie Gasland.¹³¹ The Sierra Club Atlantic chapter offers a petition for New Yorkers to sign asking Governor Cuomo to extend the

¹²³ *Id*.

 $^{^{124}}$ *Id*

¹²⁵ Don't Frack with New York, RIVERKEEPER, INC., http://dontfrackwithny.com/ (last visited May 12, 2011).

¹²⁶ Banning Hydraulic Fracturing would Protect Vital Water Resources, FOOD AND WATER WATCH, (Mar. 16, 2011), http://www.foodandwaterwatch.org/pressreleases/banning-hydraulic-fracturing-would-protect-vital-water-resources-%E2%80%A8/ (last visited May 22, 2011).

¹²⁷ Jennifer Goldman, *Hydraulic Fracturing Myths and Facts*, EARTHWORKS (Apr. 23, 2009), http://www.earthworksaction.org/publications.cfm?pubID=395 (last visited May 22, 2011). ¹²⁸ *Id.*

¹²⁹ *Id*.

¹³⁰ See Ohio University's Office of Sustainability Facebook Page,

http://www.facebook.com/note.php?note_id=10150128781112149 (last visited May 20, 2011); *The Promise and Perils of Hydraulic Fracturing: Best Answers to the Hardest Questions*, THE HERITAGE FOUNDATION (Nov. 30, 2010), *available at* http://www.heritage.org/events/2010/11/hydraulic-fracturing; *Upcoming Event: Biological Impacts Of Hydraulic Fracturing For Natural Gas session at Northeast Natural History Conference* FRACTRACKER BLOG (April 1, 2011), http://www.fractracker.org/2011/04/upcoming-event-biological-impacts-of.html (last visited May 22, 2011).

¹³¹ SIERRA CLUB NIAGARA GROUP CHAPTER, http://niagarasierraclub.wordpress.com/recent-happenings/ (last visited May 22, 2011).

moratorium currently in place in New York.¹³² The Sierra Club's national site and local sites keep followers informed of current status of litigation, studies, legislation and provides information on how people can get involved.¹³³

There is a wealth of information put out by opponents that is quite accessible to everyone.

They show more effort asking individuals to take action and get involved to support their cause.

B. Media

The media has been an invaluable source for opponents to distribute information about their cause. Groups have organized protests which attracts media attention. There are hundreds of news stories about potential and actual hazards of hydraulic fracturing and even an award-nominated documentary film called Gasland. The New York Times published a lengthy article about contaminated waters and the lack of appropriate regulation for hydraulic fracturing. Environmental organizations such as Sierra Club hold interviews and panels with the media expressing their concerns. Others issue press releases or act as experts in news programs.

¹³² SIERRA CLUB ATLANTIC CHAPTER,

https://secure2.convio.net/sierra/site/Advocacy?pagename=homepage&page=UserAction&id=5842&autologin=true &311Z0800A1&JServSessionIdr004=5stte6i3a1.app226a (last visited May 22, 2011).

¹³³ SIERRA CLUB, www.Sierraclub.org (last visited May 12, 2011).

¹³⁴ Ichi Vazquez, *Students Protest Hydraulic Fracturing During Earth Week* (May 2, 2011), http://ichivazquez.journalism.cuny.edu/2011/05/02/students-protest-hydraulic-fracturing-during-earth-week/ (last visited May 20, 2011).

¹³⁵ GASLAND (Josh Fox 2010); see, http://www.gaslandthemovie.com/.

¹³⁶ Ian Urbina, *Regulation Lax as Gas Wells' Tainted Water Hits Rivers*, NEW YORK TIMES (Feb. 26, 2011), available at http://www.nytimes.com/2011/02/27/us/27gas.html? r=1&src=me&ref=homepage.

¹³⁷ The Future of Fracking, WESTERN NEW YORK PUBLIC BROADCASTING NETWORK (May 4, 2011); see, http://wned.org/Features/futureOfFracking/default.asp.

Press Release: Citizens Campaign for the Environment, *Hundreds Rally in Albany to Protect New York's Water and Communities from Fracking* (Apr. 11, 2011), *available at* http://www.citizenscampaign.org/press-releases/release.asp?id=55.

Opponents have also caught the media's attention as there are many articles concerning the safety risks of hydraulic fracturing in national and local media. Opponents are also using blogs and editorials to get their message out. Even the documentary, Gasland has been nominated for an Oscar award, although highly criticized by the industry. The use of media and the attention it brings to the issues opponents raise has helped these groups gain support.

C. Legislation

In legislation, while many of those part of the grassroots movement may not have the resources to propose laws, there have been calls for letter writing to Congressional Representatives and government officials to speak out against hydraulic fracturing. Some of this action prompted New York's former Governor, David Patterson, to issue a moratorium on hydraulic fracturing in 2010. This moratorium is awaiting an environmental impact statement to be completed by the New York Department of Environmental Conservation before issuing any permits for high volume hydraulic fracturing. The statement is due to be out on June 1, 2011. Some of the larger groups may be able to participate in the notice and comment in administrative rulemaking depending on their strategy and resources.

http://www.timesunion.com/local/article/Drilling-foes-make-point-1332852.php; *New York Senate Democrats Hydrofracking Bill*, WBNG NEWS (Apr. 11, 2011), *available at* http://www.wbng.com/news/state/NY-Senate-Democrats-Hydrofracking-Bill-119606644.html; and Ramit Plushnick-Masti & Michael Rubinkam, *Gas Drilling's Promise, Perils Rile Townsfolk*, THE SEATTLE TIMES (Apr. 12, 2011), *available at* http://seattletimes.pwsource.com/html/nationworld/2014749060, apusgasdrillingtorntowns.html

http://seattletimes.nwsource.com/html/nationworld/2014749060_apusgasdrillingtorntowns.html.

140 See http://switchboard.nrdc.org/blogs/amall/confirmed_use_of_diesel_in_hyd.html;

http://irjci.blogspot.com/2011/03/resistance-to-fracking-continues-in.html; http://www.rcap.org/node/471; and http://green.blogs.nytimes.com/tag/hydraulic-fracturing/;

John McFarland, *Hydraulic Fracturing Makes the Oscars*, OIL & GAS BLOG (Feb. 8, 2011), *available at* http://www.oilandgaslawyerblog.com/2011/02/hydraulic-fracturing-makes-the.html.

¹⁴² See http://www.gopetition.com/petition/38931.html; http://www.thepetitionsite.com/1/anti-use-of-hydraulic-fracturing/; http://gdacc.wordpress.com/action-steps/.

¹⁴³ 9 N.Y.C.R.R. 7.41 (Dec. 13, 2010).

¹⁴⁴ *Id*.

¹⁴⁵ *Id*.

Opponents with proper resources, have and can continue to introduce bills to congress or state legislatures. There are many bills that have been introduced to limit or stop hydraulic fracturing and to highly regulate it. Along with introducing legislation, however, comes the need for lobbying. Corporations that support hydraulic fracturing have a lot of money to support lobbying efforts. Individuals and environmental groups may not have as many resources. There are some larger environmental groups that may have some financial backing to support their cause, but it does not equal that of large corporations. One website alleges that proindustry lobbyists are spending four times more than those that oppose it.

However, opponents have the supportive public's opinion. While the public may also be worried about energy resources, many are opposed to hydraulic fracturing, at least without strong regulation. When legislatures and representatives vote on a bill, they can't deny what a majority of their constituents want and expect to get elected for another term. This is where the antihydraulic fracturing websites and other advocacy efforts becomes useful, especially those that give supporters an outlet to advocate with them. Websites that provide addresses for senators or website links to keep up with what is happening can be helpful in the legislative process. If a representative has letters from many of his or her constituents, they may think twice about which way to vote on a bill. The money that proponent lobbyists spend isn't everything, but it is difficult to overcome without a lot of individual support.

¹⁴⁶ See proposed legislation supra notes 55, 61-63, 68, 72 and 73.

¹⁴⁷ Id

¹⁴⁸ Stop Fracking Around, SHADBUSH COLLECTIVE (Mar. 16, 2011), available at shadbushcollective.org/?p=174. ¹⁴⁹ Id.

¹⁵⁰ Deep Drilling, Deep Pockets: Expenditures of the Natural Gas Industry in New York to Influence Public Policy, Part II, NEW YORK COMMON CAUSE (April 2011), available at http://www.commoncause.org/atf/cf/%7Bfb3c17e2-cdd1-4df6-92be-bd4429893665%7D/CC_REPORT_FINAL.PDF.

¹⁵¹ Fracking Lobby Outspends Environmental Groups 4 to 1, SUSTAINABLEBUSINESS.COM, http://www.sustainablebusiness.com/index.cfm/go/news.display/id/22232 (last visited May 22, 2011).

D. Litigation and other Tactics

Opponents have also been those that have brought lawsuits, such as the LEAF v. EPA litigation ¹⁵² to try and require the EPA to regulate the industry. Opponents can also bring administrative remedies like was done at the beginning of the LEAF litigation where LEAF brought a petition to the EPA. ¹⁵³ Litigation can be brought to protect their own interests, for example tort litigation where a drilling company has wronged them in some way. Other ways to bring litigation is through judicial review of decisions of administrative agencies. ¹⁵⁴ These tactics not only resolve the specific issues they are seeking to resolve, but also create more support for whichever side wins. It may also help boost the supporters of either side. If a person or environmental agency wins a tort suit or judicial review suit, it may validate what their supporters have been feeling and thinking. If they lose, it may still rally the supporters. There is a risk that they may lose support if one of these cases does not go their way, or it may run the risk of gaining momentum for their opposition.

Overall, the opponents to hydraulic fracturing use many of the same techniques as the proponents but in different ways and placing focus on different tactics. Opponents use the media and social media to gain attention to their issues and use interactive websites and rallying of individuals to gain political influence. The advocacy focuses more on their supporters, mostly individuals and environmental groups and uses the advocacy tactics best suited to their needs.

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¹⁵² Legal Environmental Assistance Foundation, Inc. v. U.S. EPA, 118 F.3d 1467, 1471 (11th Cir. 1997).

¹⁵⁴ Administrative Procedure Act, 5 U.S.C. § 702.

CONCLUSION

In the hydraulic fracturing debate, both sides use almost all the techniques available to them in order to gain support (or lessen criticism) of their side of the debate. Everything from literature and information, the internet, media, legislation and litigation are used in some form by both sides. The emphasis, however, on the type of advocacy used, depends on which side of the debate the advocate is on.

The proponents tend to advocate based on where their financial resources are better suited, while the opponents focus more on individual support and action. Lobbying and political influence is a major part in the proponent's advocacy arsenal. Opponents, while they use what resources they have, tend to use letter writing and individual tactics to gain political influence. Proponents use the internet by having well designed web sites and many different resources that shed light on their side of the debate. Opponents have many websites, some of which are also well done, but they also use the power of social media and blogging. This is the one area where they are closest in a comparison of their advocacy tactics.

Because of the media's tendency to point out conflicts, the media has been a useful tool to opponents who have used it to reach out and gain support from individuals and groups, while proponents are in more of a defensive position. Proponents also are forced to defend against litigative advocacy either themselves or in support of their argument.

While both sides of this debate use the same advocacy tactics, their approaches to advocacy as a whole are quite different. Both sides seem to be using the advocacy tactics that are best suited for their underlying support groups and resources. Proponents need to continue to gain political influence, but also need to balance that with public support. Opponents need to continue gaining individual support so that they have a stronger political influence through

constituencies. We can only hope that this debate will result in what is best for everyone in the United States.