

MEDIA AS A CATALYST FOR CIVIC ENGAGEMENT AND CHANGE IN NORTH  
TEXAS: THE BARNETT SHALE CASE

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF MASTER OF ARTS  
IN THE GRADUATE SCHOOL OF THE  
TEXAS WOMAN'S UNIVERSITY

COLLEGE OF ARTS AND SCIENCES

BY

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MAY 2008

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April 2, 2008

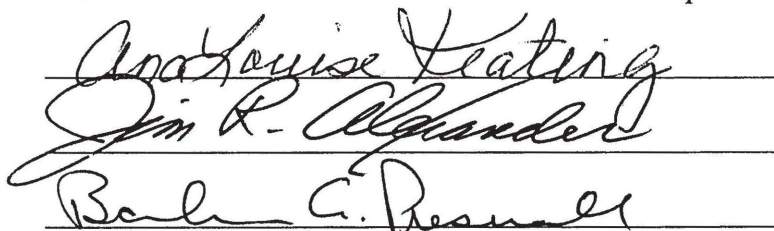
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I am submitting herewith a thesis written by Pamela White entitled "Media as a Catalyst for Civic Engagement and Change in North Texas: The Barnett Shale Case." I have examined this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts with a major in Government.



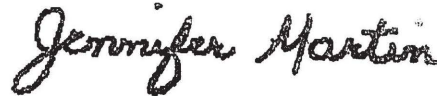
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We have read this thesis and recommend its acceptance:



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## ABSTRACT

PAMELA WHITE

### MEDIA AS A CATALYST FOR CIVIC ENGAGEMENT AND CHANGE IN NORTH TEXAS: THE BARNETT SHALE CASE

MAY 2008

Studies have indicated that the media no longer upholds its watchdog responsibilities by failing to report on issues within a timely manner. Preemptive notification would allow citizens to discuss and react before harm is done in order to prevent potential crisis. Because of its value in watchdog reporting, this paper challenges the assumption that the media fails to react in a timely manner, and also addresses whether or not civic engagement and/or change was inspired due to the media's actions. For this case study, the North Texas media's reactions to the Barnett Shale natural gas boom were examined. Because of the complexity involved within oil and gas operations and the industry's potential influence on media gatekeepers, the need to inform in a timely manner was crucial. The conclusion of this study revealed that the watchdog media did act within a timely manner and that they stimulated civic engagement and change.

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## CHAPTER I

### INTRODUCTION

[W]ithout journalists acting as watchdogs, American democracy—at least in anything close to the form we know it today—would not exist.

Lance Bennett and William Serrin

There is an overlying assumption that the role of the media watchdog is diminishing. Political communication specialists W. Lance Bennett and William Serrin, whose quoted words above so adequately describe our need for these types of journalists, found that watchdogs are on the decline due to the non-supportive conditions within business, journalism schools, and the public (334). In addition, Andrew Kohut, director of the Pew Research Center for the People and the Press found that the past saw a “greater public regard for the watchdog role” and that this current descent could be attributed to the media’s more recent sensationalist type of reporting. Kohut adds that “the public views extensive coverage of scandal in high places as pandering to partisan and tabloid audiences rather than as attempts to protect the public interest” (2).

The down fall of watchdog journalism is problematic for the United States because, as Bennett and Serrin note, “without journalists acting as watchdogs, American democracy—would not exist.” The watchdog role in democracy is crucial; media observations serve not only to report policy choices but to check and balance government and powerful interests and to notify citizens of possible events on the horizon. This preemptive notification allows citizens to discuss and react before harm is done. Yet

despite its importance, Bennett and Serrin's study indicates that while the media regularly catch wrong-doing, "journalists also often miss early-warning signs of important activities that later blow up as scandals that prove costly to the public" (327). Although Bennett and Serrin claim that the watchdog press is lacking in its ability to respond in a timely manner, "The Barnett Shale Case" attempts to challenge their findings by illustrating how the local watchdog media reacted quickly in order to serve as a catalyst for civic engagement and change in North Texas.

In this paper, I will examine Bennett and Serrin's assertion that "journalists often miss early-warning signs" by exploring reports made by local newspapers, television, and Internet bloggers in North Texas concerning the natural gas drilling of the Barnett Shale. Through this research, I hope to identify whether or not the actions of local media have served to influence civic engagement and change among policy makers, energy elites, regulatory agencies, and the general public. I also wish to identify whether the North Texas media acted in a timely manner in order to prevent future crises that a boom of this nature could have inspired. The need to inform was imperative because the success of the Barnett Shale evolved rapidly. The sudden growth of mineral rights negotiators, drilling and work-over rigs, tank trucks, and pollution, along with the economic benefits of more jobs and royalty bonuses, all quickly became factors in many North Texans' lives. Because these were unusual occurrences, education and civic engagement were necessary in order to protect rights, land and livelihood.

## CHAPTER II

### METHODOLOGY

It is the purpose of this paper to examine whether or not the media are capable and willing to preemptively alert the public to an impending policy crisis in a timely manner. To investigate this question, I conducted a case study of the media in North Texas and its interaction with the Barnett Shale natural gas boom. I observed these media reports not only for the purpose of this paper, but because I am a concerned resident of the North Texas area and an employee in the oil and gas industry. The media chosen for this study consisted of local newspapers (Fort Worth Star-Telegram, Dallas Morning News, Denton Record-Chronicle, Wise County Messenger, and Weatherford Democrat), local television stations (KDFW FOX, KTVT CBS, and KXAS NBC), and lastly Internet bloggers (TXsharon, Steve-O, and Don Young).

Although newspaper and television have served as standard choices for media research in the past, the Internet blog is a relatively new concept to the area of journalism, yet not to be overlooked. According to James M. Alexander, co-founder of eWatch, the Internet monitoring service of online public discussion, “[i]nternet public discussion and journalism are becoming interdependent . . . [w]hat is viewed by some as extremist ranting and raving consumers online is in fact a new form of journalism” (1). The validity of this “new form of journalism” and its popularity is also addressed in W. Lance Bennett’s The Politics of Illusion. As Bennett explains, because citizens have been



displeased with current reporting that lacked alternative points of view, the development of online “issue communities” has risen.

[C]itizens find each other and get the news from people who are directly involved with the issues. The goal of such communication goes beyond the traditional news goal of informing citizens, extending to helping people engage more efficiently in political activities that address the issues that concern them. These action-oriented networks combine online forums and offline deliberations to decide on plans of action. (286)

In order to adequately address whether or not civic engagement and/or change has been inspired by the timely actions of watchdog media in today’s technology advanced times, it was imperative that Internet blogs be included in this study.

All the data obtained from these local media entities was organized based on the following subject matters: Barnett Shale history and terms, drilling procedures including water use and disposal, urban drilling, mineral rights, and economic benefits. Within these categories, the reports were then organized based upon their purpose: education, called for action, or proof of change. In conjunction with this organizational process, a timeline of these reports located in the appendix was also created in order to visualize the sequence of events and to accurately determine civic engagement and/or change.

For the purpose of this paper, *civic engagement* is defined as a call for action to the public for the formation of protest organizations, blogs, websites, editorials, letter writing campaigns, and/or public meetings. *Change* is defined as an alteration to the existing

status quo which could be seen in legislation, public service announcements, amendments, and/or technology. The following research questions were addressed:

- I. Research Question: Did the media in North Texas inform the public of the potential political and economic impact of the Barnett Shale natural gas boom and, if so, was this information delivered in a timely manner?
- II. Research Question: Did the media in North Texas stimulate calls for action regarding the potential political and economic impact of the Barnett Shale natural gas boom and, if so, were these calls for action timely?

The order of this paper is as follows: Chapter III defines the Barnett Shale and the operations included in the recovery of natural gas. This is a subject that is fairly technical and unknown to the public at large and has the potential for serious social and physical disruption. Chapter IV elaborates on the role of the watchdog journalist and discusses any limitations they may encounter which would prohibit informing the public in a timely and accurate manner. Chapter V evaluates the impact of journalism on civic engagement and examines the context of the Barnett Shale natural gas boom. Chapter VI revisits the research questions for this case study conclusion and gives suggestions for further research.



### CHAPTER III

#### BARNETT SHALE

The Barnett Shale is a “6,000 square-mile natural gas reservoir” located in the Newark East Field of North Texas (“Petroleum”). This field covers 5.3 million acres in Wise, Denton, Tarrant, Parker, Jack, Montague, Cooke, Palo Pinto, Johnson, Hood, Erath, Somervell, Bosque, Clay, Comanche, Eastland, and Hill counties. According to the Texas Railroad Commission (RRC), which is the state regulatory agency for oil and gas, it is currently one of the largest natural gas producing fields in the country. This formation, named for John W. Barnett, an early 19th century settler, was first discovered in 1981 by Mitchell Energy, which at the time was a small independent company unaware of the possibilities beneath the land. For many years, researchers speculated about the natural gas below this formation, yet they did not know how to access it due to the permeability of the shale. Then Mitchell Energy began to experiment with pumping water into the ground in order to open passageways and stimulate the gas beneath.

This stimulation technology, which later became known as hydraulic fracturing, proved successful and quickly led to the recovery of vast amounts of accessible natural gas. Mitchell Energy geologist Dan Steward remarked in an interview with the American Association of Petroleum Geologists about this technique.

[W]e applied water fracs to areas where we were break-even...and they became extremely profitable. This was not just because they cut costs, but through the use

of water fracs, we were able to determine other things we were doing wrong and other ideas we had wrong—the water fracs gave us a cheap way to test non-commercial or break-even areas. (2)

Steward's "cheap way to test" is continued to this day. By "creating mini earthquakes"<sup>1</sup> in the layer of the shale, the once-trapped gas now has passageways allowing it to be released and retrieved. The success of fracing and the enormity of the Barnett Shale soon overwhelmed Mitchell Energy causing the sale of operations to the much larger Devon Energy in 2002. Currently, Devon and 174 additional natural gas operators continue to use the basic frac technology developed by Mitchell to produce natural gas in the North Texas area. With a recovery of this magnitude (6,610 gas wells as of October, 2007),<sup>2</sup> a disruption to the aesthetic and natural environment was inevitable (RRC "Information Barnett").

### Mineral Rights

The first step before any drilling occurs is the acquisition of mineral rights. In order to recover natural gas (or oil) from the ground, the rights to these minerals must be owned or leased. According to Dale Resources, a Dallas company which focuses on the leasing of mineral rights within urban areas, "[i]n Texas, minerals, like natural gas and oil, are treated as real property and can be generally sold, transferred or leased just like any other property rights" ("Leasing" 2). Oil and gas companies like Dale Resources and many others employ landmen to handle their mineral rights acquisitions. Landmen, despite the

<sup>1</sup> Gorody, "Water".

<sup>2</sup> According to the RRC, in addition to the 6610 gas wells as of October 2007, there were 4,192 pending gas wells.

sexist nature of the title, can include women or men. Their responsibility is to ensure clear titles and to negotiate with landowners. Negotiations can include cash bonuses or royalties once a well has produced. Depending on the knowledge and legal interpretation skills, the mineral rights acquisition process can result in either positive or negative outcomes for the landowner.

Positive outcomes generally occur when the landowner is knowledgeable about the mineral leasing or buying process. For example, landowners can pool together with others in order to increase the price per acre. While landowners can also research signing bonuses in their area to ascertain the going rate for minerals. The more knowledge a landowner possesses, the better her or his chances are for avoiding the negative outcomes of receiving less money, very little rights if drilling succeeds or fails, and on loss of control over the land on which they live.

This loss of control could have easily occurred in North Texas because once oil and gas companies realized the enormous possibilities that the drilling within the Barnett Shale could produce, herds of landmen were sent to solicit mineral rights by knocking on doors, mailing offers, and calling landowners. The onslaught of landmen onto the front porches of landowners happened rapidly and aggressively because the competition between the various companies to acquire these minerals was (and still is) rather fierce. This flurry of activity has resulted in the definite need for the media to act quickly to inform residents before they can be taken advantage of or exploited due to the ignorance on the part of the landowner. The knowledge that a landowner must possess does not stop with the leasing or buying of mineral rights, yet landowners must also be aware of what

occurs after those minerals are sold and the natural gas (and oil) extraction process begins.

### Drilling, Completion, and Fracing

The major contributors to the disruption of the aesthetic and natural environment occur during drilling, completion, and fracing. Before any production<sup>3</sup> can be made in a zone, a well must be drilled. As mentioned earlier, since 6,610 gas wells have already been drilled and an additional 4,192 are in process; it is easy to see how drilling rigs have become permanent fixtures in North Texas. However, before the drilling rig is even moved in, a location must be prepared. Location preparation consists of building roads, creating a pad for the drilling rig, digging pits,<sup>4</sup> creating rat and mouse holes,<sup>5</sup> a spud well,<sup>6</sup> casing,<sup>7</sup> and sometimes drilling water wells. Once the location preparation is complete, the drilling rig is installed. Rig installation can then take from two to three days. After rigging up, the drilling process then continues twenty-four hours a day until a well is drilled. The drilling process “takes an average of 22-28 days to drill one well” (Dale “Oil”). The locations of the wells drilled in North Texas have also caused concern for its residents.

Natural gas drilling within the Barnett Shale is not confined to the rural pastures of North Texas. Drilling has occurred in many unlikely locations since this boom has

<sup>3</sup> Production refers to the selling of natural gas or oil.

<sup>4</sup> Pits are dug to store drilling fluids.

<sup>5</sup> Rat and mouse holes are “shallow holes drilled adjacent to the well hole for the placement of certain tools or parts of the drilling rig equipment during its operation” (Williams & Myers 867).

<sup>6</sup> Spud wells are the “first boring of the hole in drilling” (Williams & Myers 998).

<sup>7</sup> Casing (or conductor pipe) is usually 40 feet long steel pipe that is placed in the hole during the drilling process in order to recover the natural resources and protect environment.



begun, including shopping malls, universities, golf courses, churches, suburbs, the Trinity River Hike & Bike Trail, Texas Motor Speedway, Dallas Fort Worth International, Alliance, Denton Municipal, and Meacham airports and within the city limits of Arlington and Denton (just to name a few). Although many city officials are excited by the potential for profits, some residents are concerned about safety, additional traffic, increased noise pollution, and road maintenance. As mentioned earlier, drilling rigs operate twenty-four hours a day until a well is completed, and the term urban drilling, itself, poses that drilling will continuously occur where large amounts of people work, reside, and play. After drilling is finished (whether urban or rural), the completion process begins.

The completion occurs after the drilling rig has been moved off location and a work-over rig and crew move in to resume operations. The completion of the well is the final process before a well begins to sell gas. Yet Stanford University law professors Howard R. Williams and Charles J. Meyers define completion two different ways in their book, Manual of Oil and Gas Terms. As they explain,

[t]he definition of ‘Completion’ has been hotly debated. Depending on the definition, ‘Completion’ can occur when a well has been drilled and logged at one extreme, and at the other extreme when it has been drilled, cased, perforated,<sup>8</sup> stimulated,<sup>9</sup> tested<sup>10</sup> and physically connected to a pipeline or outlet—so that production can be commenced with the turning of a valve or switch. (176)

<sup>8</sup> Perforate is the process of shooting holes in casing at the preferred depth in order to retrieve natural gas or oil. This is usually preformed by a wireline service.

<sup>9</sup> Stimulation consists of either fracing or adding chemicals to aid productivity of the well.

<sup>10</sup> There are multiple tests to evaluate the integrity of the casing and well.

Upon completion of a well, all is not quiet at the well site. A steady stream of activity, including tank trucks,<sup>11</sup> roustabout crews,<sup>12</sup> well servicing rigs,<sup>13</sup> wireline crews,<sup>14</sup> inspectors,<sup>15</sup> pumpers,<sup>16</sup> and other service-oriented companies<sup>17</sup> continues throughout the well's lifetime. In addition to the increased traffic, flaring at these sites is also quite likely. Flaring consists of burning excess gas that contains too much water to move to a pipeline or gas that is recovered before a pipeline is ready. In either situation, flames rising as high as 50 feet could tower over each well (Fuquay "Few"). Most operators would rather not flare because this results in lost profits. However, it is a necessity in some situations and much safer than venting, which is the alternative to flaring gas. Venting simply releases the gas into the environment. Flaring and venting are both likely factors to occur in the natural gas drilling process.

While the North Texas terrain may not be affected as much by an occasional flare or well-servicing company on location, well site paraphernalia can be an ongoing eyesore or

<sup>11</sup> Tank trucks transport liquids used in the oil and gas industry which can include: water, some chemicals, mud, and oil.

<sup>12</sup> Roustabout's responsibilities (in this instance) are to maintain a well and its location. Duties include: replacing flow lines, painting, repair, fence building, and any other "handy man (or woman)" repairs.

<sup>13</sup> Well servicing rigs provide service to an existing well.

<sup>14</sup> Wireline crews log (which is a test that shows information about the well's capabilities that a geologist can interpret), perform surveys, perforate, set packers and plugs using wireline. This is a strong wire that rolls up on a drum.

<sup>15</sup> The Railroad Commission of Texas regularly inspects well locations.

<sup>16</sup> Pumpers visit the well site daily in order to keep up with the well's productivity and to make sure everything is running smoothly at the well site.

<sup>17</sup> Other service oriented companies include: chemical, snubbing (they push the pipe into the hole under pressure using hydraulics to keep the pipe from being blown out of the hole), pipe delivery, sanitary services, mud crews, flow-back crews, light plant delivery and service, gas lines installers, tanks installation, dozers for clearing the pad and maintaining roads, workers who set anchors, kill trucks, and B.O.P. (Blow Out Preventer) delivery, *not to mention* the fracing equipment, additional flow lines, frac tanks, tank trucks, and other assorted "visitors".

hazard. It is important to know that once a well is completed, separators,<sup>18</sup> compressors,<sup>19</sup> flow lines,<sup>20</sup> tank batteries,<sup>21</sup> and a well head<sup>22</sup> are all permanently installed at the well site. There is also the chance that once a well is drilled and completed that it can result in a dry hole, meaning the well does not produce any gas. If this is the case, the operator of that well has nine months to return the site to its original condition. Drill site restoration can include equipment removal and the planting of crops. Not only is this procedure regulated by the RRC but it is also required of the Federal Regulatory Commission (Cressler "Property").

While the traffic and equipment on location are major factors in the disruption of the aesthetic and natural environment, another contributor concerns water. As mentioned earlier, the use of water to stimulate the gas zone (hydraulic fracturing) was what started the Barnett Shale discovery in the first place, and fracturing is not a one-time occurrence. "A fracturing of a horizontal well completion can use over 3.5 million gallons (over 83,000 barrels) of water. In addition, the wells may be re-fractured multiple times after producing for several years" (RRC "Water Use"). This re-fracturing is necessary to enhance an existing well. The water for all of this fracturing has to come from somewhere.

Water used for oil and gas purposes within the North Texas region derives from either surface or ground water. The surface water for this area can be found in the two major

<sup>18</sup> A separator is a cylinder shaped tank where oil and water are separated from gas.

<sup>19</sup> Gas is compressed in order to achieve more pressure so that the gas can be put into the purchaser's pipe line or used to improve operations at the well site.

<sup>20</sup> A flow line usually consists of a steel pipeline laid from the well to the separator to the tanks or to the gas purchaser's pipe line.

<sup>21</sup> A tank battery is a storage tank for oil and water before it is hauled from location.

<sup>22</sup> A well head is also referred to as a Christmas tree. This "generally refers to the point at which gas is severed or removed from the ground" (Williams & Myers 1143).



river valleys, the Brazos and Trinity Rivers, as well as in the many lakes of North Texas. Surface water results from precipitation accumulation. Its removal therefore lessens potential amounts stockpiled for drought and drought-like conditions. Ground water, on the other hand, originates within the Trinity and Woodbine aquifers (Gorody). Like surface water, some ground water aquifers are also affected by the lack of rain in the area.<sup>23</sup> In addition, the tremendous population growth within this area also strains the supply. Three cities within North Texas, (Fort Worth, Denton, and McKinney) were recently named the top ten fastest growing cities in the nation; thus explaining the concern that yet another factor (population growth) is now depleting this delicate reserve (Christie). If 6,610 wells have been drilled so far, and 3.5 million gallons of water were used in the fracing of each well, then that results in over 2.3 billion gallons of water used *and removed* from the surface and ground water supply on initial fracs alone. It appears that this amount of water use would have a large affect on the water stockpiled within North Texas, yet hydraulic fracturing and re-fracturing are not the only times that ground water is used.

Water is necessary for the drilling and completion operations, as well. According to the RRC,

[w]ater is used in association with many oil and gas activities, including use (in general order of relative volume) as a supplemental fluid in enhanced recovery of petroleum resources; during drilling and completion of an oil or gas well; during

<sup>23</sup> There are three types of aquifers: perched, confined and unconfined. Confined aquifers are the only ones that are drought resistant. Both North Texas aquifers (Trinity and Woodbine) are perched and are prone to drought conditions.



workover of an oil or gas well; during solution of underground salt in brine mining or hydrocarbon storage cavern creation; as gas plant cooling and boiler water; as hydrostatic test water for pipelines and tanks; as rig wash water; as coolant for internal combustion engines for rigs, compressors, and other equipment; for sanitary purposes; and for laboratory purposes. (“Water Use”)

This water is obtained by either drilling a water well when preparing a location or by trucking the water to the site from another groundwater source.<sup>24</sup> Due to the massive amounts of water utilized during the Barnett Shale’s natural gas operations, it was imperative that the public be informed in a timely manner before chances of depletion arose. Yet, water use is only a drop in the bucket when it comes to water concerns during a boom of this magnitude. Water disposal and disposal sites are also matters of interest for the watchdog press.

### Water Disposal

In addition to the water used during the drilling, completion, and fracing procedures, the natural gas wells within the Barnett Shale also “make” a lot of water. The removal of this water is fundamental in order to recover the gas. The water that each well makes, along with the water used for drilling, completion, and fracing operations, does not magically disappear. The water, which is tainted with oil, salt, and other chemicals, is collected and taken to a disposal site.<sup>25</sup> According to the RRC, “[i]n 2006 there were 4 surface waste disposal facilities and 66 commercial saltwater disposal wells on our

<sup>24</sup> If water is trucked to the site, this adds yet additional concerns for residents: more traffic on highways, damaged roads, and pollution in the air.

<sup>25</sup> Disposal sites are referred to as an injection well, waste injection well, or salt-water injection well.

records, and 36 disposal permits were issued” (“Saltwater”). At these locations, the tainted water is injected back into the ground. The threat of groundwater contamination is possible if this act is not strictly regulated.

Both private and public disposal sites are policed by the RRC, which not only regulates water disposed but also issues the original permits to grant a disposal on site. Before a site is established, permission must be given by the RRC. In addition to requiring authorization, oil and gas operators are also required to install protective casing in order to shield the groundwater supply and prevent possible contamination. Although disposal well operators follow strict guidelines in operating these sites and are regulated by the RRC, residents of North Texas continued to voice concerns through the media entities.

Fort Worth City Environmental Director, Brian Boerner, said recently in an interview with the Star-Telegram that “[i]njection wells are a simple way to get rid of the leftover water, but they pose risks because the water has to be forced into the wells under high pressure, increasing the possibility of a leak or spill” (Lee “Council”). Although the risks are unlikely to occur due to the RRC’s regulation, they are possible. With drilling rigs and disposal sites adjacent to highways, homes, schools, and offices—and the possible threats to the ground water supply in North Texas—democratic debate for residents is a necessity. Yet, in order to have a successful debate, both sides of the story must be examined. The rewards of this boom must be considered as well.

## Economic Benefits

Many North Texas residents may well feel that the economic rewards of this boom outweigh the disruption of the aesthetic and natural environment, especially upon review of the results of University of North Texas economist's Bernard L. Weinstein and Terry L. Clower's 2005 study on the impact of Devon Energy in North Texas. They found that 8,800 jobs were created by this operating company alone (Scott "Economists"; Eaton "Devon's"). Not only has drilling increased since 2005, thus generating even more jobs, but there are 174 additional operators within the Barnett Shale that were not even included in the Weinstein and Clower study. The Fort Worth Chamber of Commerce stated in May 2007 that "the Barnett Shale activity contributes more than \$5 billion a year to the local economy and has created close to 55,000 permanent jobs in North Texas" (Mallard "Passing"). In addition to these new positions created by oil and gas operators, many other jobs have been brought into existence in order to service the energy industry. Those jobs include transportation, well-servicing, restaurant and hospitality, clerical, suppliers, and landmen just to name a few (Scott "Economists"; Knox "Gas"; Coyne). Since the oil and gas industry requires so many different areas of expertise, the academic community has increased profits as well. North Central Texas Community College's Bowie location added an oil and gas degree to their curriculum (Heinkel-Wolfe "Energy"), and Texas Christian University added a Petroleum Land Practices Certificate Program in 2007 ("Petroleum").

As more jobs are created and filled, small towns that were once nearly deserted are now flourishing with activity. The Barnett Shale boom has not only stimulated the

economy by introducing more jobs and increasing spending, but tax payments in these areas have also risen. Every operator pays county and school taxes on each producing well. As more wells are drilled, the payments have increased thereby greatly assisting cities and school districts. Weinstein and Clower found in their study that: “ad valorem taxes paid directly by Devon to taxing jurisdictions in the study area approached \$45 million in 2005. Of this total, \$35 million was paid to area school districts, \$8 million to counties and county agencies and \$1.1 million to municipalities” (9). Not only are operators and their employees greatly contributing to the local economy with taxes paid, but operators are also paying the state of Texas a 7.5 % tax on all gas sold. In addition, many of these wells also make a small amount of oil that is then sold to make gasoline that results in another 20 cent tax that is charged at the pump—that also goes to the state of Texas—as well as the federal government. Yet the economic rewards do not stop here. As mentioned earlier, in order to drill natural gas wells, the mineral rights must be purchased or leased. The citizens of North Texas are not the only benefactors of signing bonuses and royalty payments that result from the land acquisition process. Some benefactors are local governments.

Due to the rise of urban drilling, many cities within the Barnett Shale have had the opportunity to lease or sell mineral rights for hefty figures. The city of Arlington could receive up to “\$2.47 million upfront and a 25 percent royalty on a successful well”<sup>26</sup> for its minerals, while the city of Denton is expected to receive \$3.5 million from its leased

<sup>26</sup> (Jenkins “Arlington”).

property within city limits.<sup>27</sup> In addition, Fort Worth city council agreed to lease Meacham Airport for a signing bonus of \$14.8 million and 28% of revenue (Lee “Council”). These examples reflect only a few of the deals made during this boom. Once agreements are reached regarding the leasing of minerals, city and county officials then have to decide where the money will be applied. Lawmakers and citizens must be informed throughout this decision-making process. Yet informing the public is not always an easy task for journalists.

<sup>27</sup> (“Gifts”).



## CHAPTER IV

### GATEKEEPING

Big business finances the production and distribution of mass media. And, all intent aside, he who pays the piper generally calls the tune.

P. F. Lazarsfeld and R. K. Merton

Critics of the media would say that journalists are not always at liberty to inform the public as they may like. To say that big business is influential within the media may be an understatement to many considering the words of Lazarsfeld and Merton quoted above. Although their comments were made in 1948 during one of the first studies into the influence of big business, public cynicism towards media and big business's relationship continues to this day. Yet more current studies reflect not how big business influences media but rather how media itself has turned into a business. Bennett and Serrin, in their 2005 study of the watchdog press, found "that most news organizations in the United States are driven by business formulas that exert various limits on defining and elevating democratic press functions" (330). It could be said that these "business formulas" take away from the amount of information that the public receives and could be fueled by the need to protect business interests. As in "The Barnett Shale Case," the media's watchdog reporting could have easily been limited by the influence of one of Texas's biggest businesses: the oil and gas industry.

The energy industry generates significant incomes; with this income, energy elites contribute to political campaigns. The lawmakers who receive contributions from energy elites would in a quid pro quo relationship reimburse the industry by protecting its interests. According to [OpenSecrets.org](http://OpenSecrets.org), a website that reports campaign contributions in the United States, among the top twenty benefactors of the oil and gas industry, six of the lawmakers were from Texas.<sup>28</sup> This “investment” would allow energy elites the opportunity to influence lawmakers and regulatory agencies<sup>29</sup> in a way that most average citizens cannot. Because of the upper edge that the oil and gas industry has, due to their campaign contributions, and because oil and gas are so important to the economy of Texas, the media industry could be swayed as well.

It is likely that energy elites could influence the media in the same way that they influence politics, with money and friends in high places. Combine that with the special relationship that elites have with lawmakers, and you have an extremely influential force. This influence could assist the media in their agenda setting, thus “calling the tune” as Lazarsfeld and Merton suggest. Agenda setting allows the media to report only on issues that they (or their influences) deem important. By having an influence on agenda setting, issues that may cause unwanted attention can easily be eliminated from an agenda. This form of control is often referred to as gatekeeping. The oil and gas industry—with their money and power—could easily be viewed as influencing the gatekeepers thus preventing the media from reporting all that they may know.

<sup>28</sup> <http://www.opensecrets.org/industries/summary.asp?Ind=E01&cycle=ALL&recipdetail=>

<sup>29</sup> The role of RRC Commissioner is an elected position.

Gatekeepers are responsible for controlling the flow of information to the public. If the oil and gas industry or the lawmakers to whom they contribute serve as significant influences on the gatekeeping press, then the amount of information that the public knows, can be limited; especially since even local politicians like “Fort Worth Mayor Mike Moncrief earned more than \$600,000 from the oil and gas business in 2006” (Lee “Mayor”). Are local journalists able to rise above this considerable pressure and acknowledge their responsibility and inform policy makers, energy elites, regulatory agencies, and the general public quickly and efficiently about the concerns that this boom has inspired?

The acknowledgement of the press’s responsibility to its public is crucial. Possibly one of the original believers of this statement was the New York Journal’s William Randolph Hearst, who strongly advocated for the watchdog role of the press. His philosophy, as described by American University’s Communication professor W. Joseph Campbell in The Year that Defined American Journalism: 1897 and the Clash of Paradigms, was that “newspapers were obliged to inject themselves, conspicuously and vigorously, in righting the wrongs of public life, and in filling the void of government inaction and incompetence” (5). This obligation of the press to inform coincides with Bennett and Serrin’s statements mentioned at the beginning of this paper, that “without journalists acting as watchdogs, American democracy—at least in anything close to the form we know it today—would not exist” (328). Hearst as well as Bennett and Serrin impose quite an amount of responsibility on the role of the journalist; it is no wonder that



Bennett and Serrin found the role of the watchdog press in decline due to the many factors that stand in its way.

Yet communication studies guru Doris A. Graber reflected in the introduction to Bennett and Serrin's essay that the demise of the watchdog is purely in the hands of the press when she stated, "watchdog failures have been more plentiful because most journalist routinely neglect their surveillance role or perform it poorly" (326). Whether it is the influential role of gatekeepers or "the non-supportive conditions within business, journalism schools, and the public" as mentioned by Bennett and Serrin in the beginning of this paper, or possibly the media's reluctance to take on an industry that is so positive to the local economy, the watchdog press certainly has its obstacles to overcome when fulfilling its role as the activist journalist.

Upcoming sections describe media reports relating to potential community problems involving natural gas extraction. Did the media's actions serve as a catalyst for civic engagement and change in North Texas, therefore challenging Bennett and Serrin's claim that watchdog journalists often miss the mark when it comes to warning the public before problems arise? As previously mentioned, the reports that I will utilize originate from three different forms of local media: newspaper, television, and Internet blogs. While newspaper and television have served a major role in informing the public for many years, Internet blogs are a relatively new concept in media, yet not to be overlooked.

Blogging has taken citizen involvement and impact on the news to another level. Bloggers are able to define news by choosing topics of importance without worrying about the ramifications that typical journalists may endure. Because of these freedoms,

blogging has given extra attention to matters that may have been swept under the rug. For instance, on the national level, blogging allowed many to voice their opinions concerning several recent historical events: the aftermath and possible causes of September 11, 2001, and the necessity for aid during Hurricane Katrina. In addition, bloggers were responsible for soliciting contributions that allowed an unknown 2004 Democrat hopeful named Howard Dean to surpass many expectations in his campaign for President.

Blogging should be taken seriously and is not a fad to be ignored. According to Ellen Hume, executive director of the Democracy Project at the Public Broadcasting Service [w]ith the new interactive media, news audiences no longer are captive. They have equal access to the original sources of news and can eliminate the middle-man journalist. The major journalism organizations no longer can count on their most precious assets: a monopoly on defining what is news, exclusive access to officials, and the public's trust. (140)

Because the "monopoly on defining what is news" has been lifted and because the natural gas drilling within the Barnett Shale was literally occurring in the backyards of many residents, these residents were able to blog concerns, inform others, and stimulate interest instantaneously as events were happening. The quickness of their reporting and the freedom to divulge all that they saw, served in conjunction with traditional media to inform energy elites, lawmakers, regulatory agencies and fellow citizens. The popularity of the blog and the necessity to inform about the Barnett Shale inspired the Star-Telegram to begin their own Barnett Shale blog as well thus widening the gate.

## CHAPTER V

### CIVIC ENGAGEMENT AND CHANGE

Many Americans see an ill-mannered watchdog that barks too often—one that is driven by its own interest rather than by a desire to protect the public interest.

Andrew Kohut

The watchdog media has often faced accusations of either barking too much or not barking enough. Scrutiny towards activist media and public sentiment often reflects the above words of Columbia Journalism Review's Andrew Kohut from his essay "Public Support for the Watchdogs Is Fading." However, according to my observation and analysis, the watchdog media in North Texas has appeared genuine in its efforts to inform the public. Over the past two years, through their timely and undying efforts, the local media, in its "desire to protect the public interest," have reported on everything from general information about the Barnett Shale formation, to educational pieces on mineral rights leasing, to news about the growing economy, to environmental concerns with drilling. All of the reports, regardless of their topic, have served to educate the public about an often confusing subject.

Although the state of Texas has a history of lucrative oil recovery methods, many living in North Texas still lacked the knowledge about natural gas drilling, especially those living in urban areas. This lack of education could have easily resulted in a quiet take-over by the energy elite without any civic engagement whatsoever. A lack of civic engagement could pose the threat suggested by Bennett and Serrin's comments earlier in

this study that “without journalists acting as watchdogs, American democracy—at least in anything close to the form we know it today—would not exist” (327). Yet, as this study documents, the media was not about to let that happen and quickly informed the public so that they could question actions taken, make informed decisions, and at times enact change.

Public action has been stimulated in response to many of the critical issues involved with the Barnett Shale play.<sup>30</sup> For many, civic engagement transpired out of the sheer desire to learn more or the need to reach others within the community; while for others civic engagement was not a choice, but rather their only hope to protect the landscape. This civic engagement that local media inspired included town hall meetings, the formation of protest organizations, letter writing campaigns, Internet blogs, and question/answer sessions with energy elites. Because of this civic involvement and persistent watchdog reporting in North Texas, change has occurred.

Even though Bennett and Serrin found in their study that “journalists . . . often miss early-warning signs of important activities that later blow up as scandals that prove costly to the public” (327), local media acted in an expeditious manner which aided the change that occurred. It is my belief that if the education of the public and a call to action had not been goals of the media, civic engagement would have been less likely to occur. Without civic engagement, residents and lawmakers alike would not have known there were issues that were important thus requiring debate. One area in particular that required attention concerned water use.

<sup>30</sup> The play refers to the area of oil and gas activity.



## Water Use

Without water, current drilling methods in the billion-dollar Barnett Shale natural gas field are worthless.

Galen Scott

The importance of water for the recovery of natural gas within the Barnett Shale was not common knowledge for all citizens of North Texas. Nevertheless, once the process of hydraulic fracturing became better known, then the public was able to comprehend the great amounts of water used in the process. This information was gained through media reports and the RRC. For those citizens with Internet access and the awareness of the RRC's role as the state regulatory agency, their website provided in-depth information about the fracturing method.

However, for much of the general public watchdog journalists like the Weatherford Democrat's Galen Scott quoted above—along with many others—were the sources for information. These journalists made it a point to inform those who may have not known otherwise of water's significance in this boom. Their reports included not only information about the large amounts of water used within drilling, completion, and hydraulic fracturing, but they also detailed how accurate amounts were yet to be determined considering the oil and gas industry's exemption from water use regulation. "Oil and gas operators are exempt from monitoring water usage so that the figures we have are best guess estimations based on information that is voluntarily supplied by the operators themselves" (TXsharon "The Facts"). Peggy Heinkle-Wolfe adds similar comments in her report "Drilling Could Sap Water Supply" that "[p]art of the problem is

getting good information from gas well operators, especially in predicting how much water might be needed to keep a gas well producing . . . It's questionable—whether the industry doesn't know, or is delaying and avoiding the question”.

Although most oil and gas operations are regulated by the RRC, the regulation of water use is out of its jurisdiction<sup>31</sup> and is instead monitored by a (GCD) Groundwater Conservation District (Williams).<sup>32</sup> Consequently, local media quickly informed residents that most of the Barnett Shale counties did not have a GCD in place and even if they did, according to the Texas Water Code, oil and gas companies were exempt from regulation (Scott “Exemption”; TXsharon “Update”).<sup>33</sup>

This disbursement of information by the watchdog media perhaps attributed to the consequential forming of GCDs soon thereafter. Accordingly, citizens and lawmakers also organized to amend the Texas Water Code (Scott “Hudson”). In addition to blogging and reporting about this issue, TXsharon took this cause a step further and also encouraged citizens to contact Texas Senatorial Committee Members personally, in order to persuade lawmakers to lift the exemption on oil and gas companies (TXsharon “Action”). Along with contacting lawmakers, other citizen action included town meetings, letter writing campaigns, and attention from the press all of which occurred over the two-year time period.

<sup>31</sup> The RRC does require operators to report water made by the wells but not water used.

<sup>32</sup> Groundwater Management through Groundwater Conservation Districts was enacted in Senate Bill 1 of the 1997 Texas Legislature.

<sup>33</sup> According to the Texas State Legislature, Section 36.117(b), Water Code exempts water wells drilled for the purpose of gas drilling or exploration from the permitting requirements of groundwater conservation districts.

This attention ultimately served to form the Upper Trinity GCD which consists of Montague, Wise, Parker, and Hood counties. At first, the Texas Commission for Environmental Quality (TCEQ) proposed that thirteen counties be included in the GCD (Scott “Groundwater”; Scott “Voters”). However, once TXsharon and the Weatherford Democrat reported this proposal, citizens and representatives of the smaller counties began to demand that their areas not be lumped into districts with cities the size of Dallas and Fort Worth (TXsharon “Devon Wants”; TXsharon “Upper”; Scott “Voters Will”). For those citizens that still were not clear on what route to take, TXsharon spelled it out in her August 22, 2007 blog and the Upper Trinity passed soon thereafter.

Wise County residents still don’t understand so I’m going to type the following very slowly: We only have TWO choices: 1. Vote for the Upper Trinity GDC or 2. Let the TCEQ<sup>34</sup> and TWDB form a GCD for us where we will be lumped in with about 11 counties including the Metroplex. Better to have some control and the added benefits provided by the Upper Trinity GCD. (TXsharon “Upper”)

Another success due to the efforts of the activist journalists included the passing of SB 714, which lifted the Water Board’s oil and gas exemption. Because journalists like the Weatherford Democrat’s Galen Scott and TXsharon continuously mentioned the Water Board’s exemption in their reports, citizens and lawmakers were more aware that an amendment was necessary in order to adjust to the changing times that the boom had inspired. The formation of GCDs and the passing of SB 714 was not the only change that resulted from watchdog reporting concerning water use. It is likely that because of the

<sup>34</sup> Texas Commission for Environmental Quality

concern generated around water use, the Texas Water Development Board (TWDB) took notice as well.

In January 2007 the TWDB financed the following study: “Assessment of Groundwater Use in the Northern Trinity Aquifer Due to Urban Growth and Barnett Shale Development.” The study found that “groundwater is used about 60% of the time” in drilling procedures over surface water. In regards to how this water use would affect the future of the two aquifers of North Texas, the study concluded

as population increases, the Trinity/Woodbine aquifers will not provide a sole-source supply for all users. Similarly, if population increases in areas now solely served by Trinity/Woodbine supplies, then development of supplemental water supply sources and regional distribution systems will likely become a necessity.

(49)

The study concluded that the groundwater supply is at risk due to drilling operations and population growth. More wells will be drilled in this area, more jobs generated, and more people re-locating here. It is therefore important to address alternatives to depleting the water supply. This chain reaction has served to stimulate public concern about possible water recycling methods (Scott “Weatherford”). However, in this instance the energy companies were a step ahead of the watchdog media.

Efforts to recycle the water used within oil and gas operations have been in the works since 2003 when Burlington Resources was authorized to re-use water during drilling and fracing operations (RRC “Water Use”). Soon after in 2005, Stroud Energy was authorized to do the same (RRC “Water Use”). The year of 2005 also saw the installation



of three Aqua-Pure onsite water treatment facilities which made water recycling much simpler for the operator due to its onsite location. Furthermore, that same year Devon Energy was approved for a pilot program on water conservation (Deady “Devon”). This program was only the beginning in water re-use efforts for Devon. Yet, attention concerning these efforts was not highly publicized until the producer collaborated with the media and other operators at the Barnett Shale Expo.

On May 16, 2007, the Star-Telegram, Devon Energy, XTO Energy, and EnCana Oil and Gas joined forces to sponsor the first Barnett Shale Expo. This expo was a huge event, open to the public, and specifically designed to educate. Advertising for the event began several weeks in advance in the Star-Telegram with an additional supplement added to the Sunday edition. Within these advertisements general topics of concern were mentioned as being addressed at this event. Those topics included water use, mineral rights, job opportunities, and the hope that the Expo could serve as a liaison between the general public and energy elites. In addition to the advertisements within the Star-Telegram, the Fort Worth Convention Center publicized the event as well. The advertising paid off and the turn out surpassed all expectations.<sup>35</sup> Top operators within the Barnett Shale were on hand not only to answer questions about citizen concerns but to also inform the public about job opportunities and investments. Nonetheless, the principle emphasis of the expo did regard water use.

<sup>35</sup> I know this personally because I attended this event. Parking was impossible and many people parked blocks away from the event or took the bus to avoid the traffic. Within the Expo, it was very difficult to move up and down the aisles due to the large numbers of people. In addition, extra classrooms had to be opened in order to make room for the unexpected numbers attending seminars. Many people sat on the floor during presentations.

Concerns about water use were addressed at a seminar conducted by Anthony W. Gorody, President of Universal Geo Science Consulting, Inc., on “Water Use and Water Wells: Issues Related to Barnett Shale Development.” In this seminar, Gorody provided information about how much water is used in oil and gas operations, answered questions about potential threats to existing water wells, explained the differences between surface and ground water reservoirs, and insisted that “long term groundwater use for Barnett Shale will decline eventually”. This decline could be attributed to the efforts of operating companies to seek alternatives to water. This concept was highly emphasized during the Expo.

Visitors to the Expo were able to witness the unveiling of Devon Energy’s water recycling equipment. Accompanying the display were many representatives to answer questions and a wide array of free gifts.<sup>36</sup> In addition, a handout was also included that explained their efforts in curtailing water use. Devon stated that their plan is “to reuse 75 to 95 percent of flowback wastewater<sup>37</sup> through recycling” (Devon). In addition, Devon announced that they will work in conjunction with Pitts Oil Company and XTO Energy to “examine methods to conserve and recycle water used in the fracturing of rock during the drilling process” through the Barnett Shale Water Conservation and Management Committee (Devon). Since its formation in February 2007, this committee now includes a total of sixteen energy companies along with Texas Independent Producers and Royalty Owners Association, Texas Oil and Gas Association, and the Gas Technology Institute

<sup>36</sup> Calculators, clocks, pens with glowing lights, note pads, candy, etc.

<sup>37</sup> Flowback water is the water that you retrieve after fracing. This water is tainted with oil, salt, and some chemicals.

(Deadly “Gas”). Such far-reaching measures as the formation of this committee as well as water recycling efforts could provide significant changes within the industry for the future. These changes relate to media involvement because in addition to informing the public about the lack of oversight when it comes to water use and regulation, the media has also notified the public to think of the future consequences as well.

For example, the Wise County Messenger’s Ken Hughes challenged readers to think of potential consequences of this boom.

One must wonder about the distant or perhaps not too distant future we would prefer, when humanity finally realizes one can’t drink, bathe, cook in, or otherwise use methane to replace the great Trinity Aquifer water resource that is constantly placed at risk of being sacrificed on the altar of Barnett Shale. (“Our Water”)

Many of TXsharon’s blogs coincide with Hughes’ message in that they stimulate readers to think beyond the present. “Do you ever wonder what’s going to happen because we’re removing so much water from our water cycle? I do. It keeps me up at nights” (“Insatiable”). TXsharon challenges readers to become more educated about how much water the oil and gas industry is using and points out that even though water use may not seem as imperative as the Iraq war, a call for action is necessary. “Very soon water will not only be *the* sexy story, it will be the *only* story” (“It’s Not Sexy”).

Because of the media focus on potential ramifications, Devon Energy is not the only oil and gas operator concerned about water alternatives for the future. Nor was the Barnett Shale Expo the only place for oil and gas elites to showcase their advancements.

EnCana Oil and Gas, along with many of the other top operators, have begun to use their websites to address citizen concerns. EnCana, for instance, states that their water recycling efforts will include water distillation, reverse osmosis, and the testing of chemical systems to decrease the amounts of water that a well produces. Many other operators have followed suit in their public relations campaigns. These actions serve to counteract the media's reports concerning the possible threat of water depletion.

These environmental efforts are not limited to oil and gas operators alone, for the city of Weatherford announced in March 2007 that they will begin to examine recycling wastewater in order to sell it to oil and gas operators for reuse (Scott "Weatherford"). Furthermore, within the past two years, the RRC has also re-vamped its website to include information about water use within the Barnett Shale (RRC).<sup>38</sup> These efforts, along with the formation of GCDs and the amendment to the Texas Water Code to regulate oil and gas's use of water are examples of how civic action altered the existing status quo. The documented media input that inspired this civic action consisted of the many reports that focused on water use and groundwater depletion (Hughes; Scott "Energy"; Nichols; Heinkle-Wolfe "Drilling"; FOX DFW "Investigation"; TXsharon "Depleting"; TXsharon "Insatiable"; TXsharon "It's Not Sexy"; TXsharon "The Facts").

<sup>38</sup> The RRC added this information within the 2006-2007 timeframe.



## Mineral Rights

I think people are being sucked into the promise of royalties, and they are being deceived about the effect on the environment.

Diane Wood

As mentioned previously in Chapter III, the leasing or sale of mineral rights can often be a complicated process. Not only are contracts difficult to decipher, but promises of cash bonuses and additional royalties can often blind a landowner into making hasty decisions with little regard to long term effects as North Texas resident Diane Wood states. However, local newspapers including Dallas Morning News, Star-Telegram, and Weatherford Democrat were extremely effective in informing citizens about the whole package: what to look for in contracts, what to avoid, and how much others in the community received for their minerals (“Tips”; Richter “Gas Value”; Fox and Richter “FW Neighborhoods”; Fuquay “Few”; CBS KTVT “Lawsuit”). In conjunction with the efforts of local media, many citizens have then taken the knowledge gained from their experiences and have served to inform others in their community through town hall meetings, support organizations, and blogs (“Learn”; Lee “Neighborhood Group”; Nielson “Activists”). This type of personal civic engagement has acted to better prepare mineral rights owners for the land acquisitionist scouting their neighborhoods and for obstacles like additional costs or broken promises.

For instance, Dallas Morning News reported about how many residents in Fort Worth were having difficulties receiving their royalties. According to watchdog journalist



Marice Richter, “the drilling company that holds the leases in Oakhurst is insisting that subordination agreements be signed between homeowners and their mortgage lenders before royalty checks are issued” (“Mortgage”). In order to get these agreements signed, homeowners are charged additional fees up to five hundred dollars. Furthermore, a group of landowners in Fort Worth has filed a lawsuit against Glencrest Resources due to failure to fulfill their contract. Glencrest promised landowners large bonuses up to \$3,000 once drilling commenced in April 2007. However, by October the leasing company had acquired many leases without following through on their promise (“Lawsuit”). Hefty additional costs and broken promises are examples of the unexpected obstacles that may arise from the mineral leasing process.

Another unforeseen problem relates to location preparation. Unfortunately for surface owners, a caveat to the selling bonus was that those leasing the mineral rights must be able to extract the minerals they bought. The extraction process includes building roads to reach the extraction site and laying pipelines, not to mention the drilling of a well, as was previously mentioned in Chapter III. The Weatherford Democrat has worked to remind landowners of the additional obligations of the surface owner through their reports including one detailing an individual who called the police when an operator began to cut the fence and build a road on his land (Scott “County”). Although this may appear as an intrusive operation with no regard to the surface owner, mineral rights owners do have eminent domain in Texas (Robinson “Oil”; “Eminent”). However, as an act towards change, state representative Phil King (R-Weatherford) authored HB 630 known as King’s Common Courtesy Act. This bill, which unanimously passed the Texas

Senate would require that “written notice be given to property owners to ensure they know in advance that workers will be entering their land to drill or rework a gas well” (“Legislature Passes”). The suggestion for this legislation arose from citizen dissatisfaction. “There have been complaints from landowners who have found strangers on their land with no advance notice,” King said. “This isn’t a matter that should have required legislation action, but too many companies simply ignored common courtesy” (“Legislature Passes”).

Educational information about the mineral leasing process is not limited to newspapers and television alone. For those who have Internet access, citizens can also become more informed about the mineral leasing by visiting the RRC website. In addition to their “Water Use in Barnett Shale” page, the RRC has also recently added<sup>39</sup> a section addressing the mineral leasing process. This page provides a list of the frequently asked questions generated by the Barnett Shale boom. Accordingly, energy companies are also including leasing information on their web sites as well. It is reasonable to assume that these recent changes to corporate and government websites are partially in response to the watchdog media’s efforts to stimulate the public’s demand for more information before signing contracts.

<sup>39</sup> This page was added to the RRC’s website within the 2006-2007 timeframe.

## Urban Drilling

The sweet spot is right under the city of Ft. Worth... Not since Los Angeles in the 1920's and Oklahoma City in the '30's and '40's has an urban area attracted so many rigs.

Dan Piller

The watchdog media's attention to urban drilling was necessary, given that the drilling in cities posed several different concerns from those seen in the rural pastures of North Texas. Those concerns include safety in public areas, protection of green space, and proper allocation of the money received from mineral leasing and royalty payments. Because of these issues and because of the agenda setting of the media that focused on these issues, city dwellers became more educated. As a result, residents formed opinions, addressed concerns and, ultimately, civic engagement for change followed.

Civic concern over safety issues stemmed from newspaper, television, and Internet blogs of local incidents related to natural gas recovery. These incidents included gas explosion, a fatality on location, a tanker spill, and a pipeline fire (CBS KTVT "Pipeline"; CBS KTVT "Man Dies"; CBS "Static"; NBC KXAS "Creeks"). With the notification of these events, as well as concerns over pipeline locations, residents became more vocal about drilling within city limits (Fox and Souder "Gas Wells"; Aasen "Gas Well Drillers"). Protest organizations like FWCanDo! were formed, blogs were circulated and rallies were held to protest urban drilling (Ramshaw "Dallas"; Lee "Divisions"; Heinkle-Wolfe "Energy Officials"; "Barnett"; Austin "Residents"; Steve-O "Bernie"; Steve-O "Mistletoe"; Young "Spewing").

Residents spoke out about the safety risks related to drilling in a highly populated area, including increased amounts of traffic that could lead to more dangerous roadways, as well as possible threats of air, water, and noise pollution in the area (FWCanDo!). In addition to this civic engagement, FWCanDo! worked in conjunction with the Fort Worth League of Neighborhoods to educate residents during the “Gas Drilling Education Event for Presidents of Neighborhood Associations” so that leaders could better inform their neighbors. Consequently, it could be said that this civic engagement inspired the change that occurred with the Fort Worth City Council. The Council increased the distance between a gas well and a residence, business, or church from 300 feet to 600 feet in June 2006 after to the evacuation of hundreds of residents subsequent to a gas well explosion (Goolsby “GP Increases”). Although the change in distance was a significant step for the city of Fort Worth, many watchdogs in other urban areas like Arlington and Grand Prairie are working to increase the drilling distance within their cities as well (Lee “Rules”; Lee “Divisions”; Goolsby “GP Increases”).

Activist journalist blogs (print and televised media failed to pick this up) argued that cities often regulate other “dangerous” businesses more closely than oil and gas. To take a case in point, strip clubs are currently regulated to remain 1000 feet away from residential areas, making the 600 feet imposed on gas wells a little ridiculous for some. TXsharon posts, “I know gas wells cause a lot of pollution and drilling them permanently removes billions of gallons of water out of our water cycle but I never knew they were less dangerous than breasts” (“Breaking”). Don Young posted a similar blog on the same topic and stated, “[w]omen’s breasts are more dangerous than gas wells. Hey, I didn’t



make this up. The City of Fort Worth has decreed it so” (“Lightning”). Whether gas wells are more dangerous than breasts may seem like a ridiculous claim; however, it is an issue arousing civic engagement to this day, in addition to the other concerns involved with urban drilling that media watchdogs have addressed.

Another area of concern regards loss of green space. The amount of green space that any given city has is often treasured by residents. This green space can include parks, hike and bike trails, and serves as a tranquil retreat from the hustle and bustle of city life. Many Fort Worth dwellers believed that their beloved Trinity Trees, an 8-acre section of mature trees along the Trinity River Hike and Bike Trail, belonged to the public. However, media reports in January 2007 indicated that the green space had been purchased by Chesapeake Energy for urban drilling use. Chesapeake's plans included the removal of 2.5 acres of mature trees (Trinity). This report which is available in full content on the FWCanDo! website quickly led to significant civic engagement. Listed below are the steps that occurred in opposition to Chesapeake’s plans per the organizations website.

1. Launched [www.trinitytrees.org](http://www.trinitytrees.org) in July 2007.
2. Distributed thousands of fliers.
3. Secured more than 1200 petition signatures.
4. Gathered donations to run two full-page ads in the [Star-Telegram](#).
5. Brought people together at a Labor Day picnic in the eight-acre grove.
6. Held a public forum attended by more that 400 people.
7. Received extensive press coverage.

8. Presented the concerns and an alternative solution to the Mayor and City Council.
9. Overall, raised the awareness about this issue to a point that the City of Fort Worth and Chesapeake Energy listened and responded to the community's concerns. (Trinity)

It was six months after the Chesapeake report was published, that the Trinity Trees protest organization was formed by two residents, Rick Collins and Jim Marshall. Through the use of civic engagement, Collins and Marshall solicited and received the help from many major businesses, private donors, and a state representative all within the Fort Worth city limits.<sup>40</sup> With this sponsorship, they were then able to reach a wider array of citizens in spreading the word about Chesapeake's plans. Collins and Marshall educated the public and called for action through blogs—not only on the Trinity website but on websites of their sponsors—posting flyers in business windows, letter writing campaigns, public forums, and by addressing the Mayor of Fort Worth. All the while, they received continuous press coverage of their efforts (Trinity; Steve-O “Trinity”).

Ultimately, this civic engagement sparked change and Chesapeake's officials agreed to revise their plans for the section of trees. Chesapeake revision included lessening the amount of trees destroyed from the original 2.5 acres to 1.4 acres. Furthermore, they have also agreed to add an additional 268 trees to the location (Trinity). The efforts of the Trinity Trees organization did not stop with this success. They are currently working

<sup>40</sup> A list of all sponsors (public and private) is available at [http://www.trinitytrees.org/blog/?page\\_id=19](http://www.trinitytrees.org/blog/?page_id=19).

to save additional green spaces in Lake Worth and the Tandy Hills Nature Area from the effects of an urban drill.

Not all urban drilling effects are negative. As mentioned in the “Economic Benefits” section of Chapter III, the Barnett Shale boom has generated significant amounts of money for North Texas. By making record breaking deals for mineral leases, cities are benefiting from cash bonuses and royalty payments as well as from additional jobs and increased spending. Local watchdog media has actively kept citizens abreast on the amounts of money that cities have received (“Gifts”; Lee “Council”; Jinkins “Arlington”). Because of this, civic engagement has been inspired on two levels: while some dwellers are angered because they believe greed is a factor, other residents just want to ensure that the money is being put to good use.

Those residents concerned over greed have voiced the concern that possibly money is being made with little regard for the well being of residents and the environment. TXsharon’s blog on BlueDaze stimulates civic interest by asking questions that are rarely addressed in traditional media. In her post, “Barnett Shale: Fort Worth Residents Sell Out Cheap” she asks if the \$25,000 received to revamp a park in Fort Worth was enough considering the impact that urban drilling may have on the future (“Fort Worth”). This blog asks that readers think about potential threats of air and water pollution in the future. While respondents to this blog vary in their levels of agreement and disagreement, the actions of this activist journalist has stimulated an interest about whether the mineral leasing bonuses are worth their weight in the long run.

Nonetheless, lucrative deals have been made and whether they will represent prospect, greed in the future—or both—is speculation. However, local residents can participate in determining how the money received is spent through letter writing campaigns, protest organizations, blogs and town hall meetings similar to the ones held in Arlington (Austin “Residents”). One noteworthy area of concern generated by the watchdog media involves the hiring of an intermediary to handle the mineral leasing process. Star-Telegram journalist Mitchell Schnurman informed the public that the city of Fort Worth is wasting much of its money earned in mineral leasing by employing J.P. Morgan.

In the November 2007 article “City Losing Bucks by Outsourcing Gas-Lease Work,” Schnurman states “[f]or more than two years, the city has been paying through the nose to outsource its dealings in the Barnett Shale. Instead of doing most of the work in-house, it hired J.P. Morgan to handle gas leases and monitor royalty runs.” Schnurman’s article would not have been a big surprise for the public had other cities outsourced this work as well, but areas like Arlington and the Dallas Fort Worth International Airport that also have large amounts of mineral leasing are handling this process with their own employees. Civic engagement in regards to this report has resulted in numerous blogs posted to the Star-Telegram’s Barnett Shale blog. This blog, which began in September 2007, allows journalists an opportunity to voice their concerns over decisions made. Because it is sponsored by Fort Worth’s largest newspaper, its reputation could stimulate a larger and more diverse audience than other blogs due to its publicity through the newspaper. Although J.P. Morgan is still employed by the city of Fort Worth, the amount



of civic engagement involved in relation to the money received is not about to go away. The media watchdogs have certainly given North Texas residents something to ponder.

### Naturally Occurring Radioactive Material

NORM, or naturally occurring radioactive material, is found almost everywhere. It is found in the air and in soil, and even in radioactive potassium in our own bodies. It is found in public water supplies and foods such as brazil nuts, cereal, and peanut butter.

Railroad Commission of Texas

Another area that the media covered concerns radioactive waste in the Barnett Shale. While having radioactive material deep underground—as well as in our bodies—may be a normal occurrence, hence the name, Naturally Occurring Radioactive Material (NORM), hydraulic fracturing is not. Because such high pressures and amounts of water are used during the fracing process, natural gas is not the only thing stimulated underground. Radioactive materials rise along with the gas and can contaminate the water that these wells produce, the tubing underground, and the tanks and separators on location. In addition, if the water that the wells make is contaminated by the radioactive wastes, then the potential for leaking wastes at water disposal sites causes even more concern.

While many reports concerning the Barnett Shale have focused on the success of hydraulic fracturing or the large amounts of water used during a frac, activist media consisting of the Denton Record-Chronicle and Internet blogger, TXsharon have informed the public about the radioactive concerns that a frac may cause. According to the Denton Record-Chronicle's four part series on radioactive material,

[i]n the Barnett Shale, everything from equipment to producing well sites is being decontaminated. At most area well sites, decontamination workers cleaned and disposed of 10 barrels of radioactive residue or less. However, in places where equipment has been stored, or production waste has accumulated, the cleanups have been much larger. (Heinkle-Wolfe “Poisoning”)

The Department of State Health Services reports that these clean ups have occurred at 140 different sites since January 2005 (Heinkle-Wolfe “Gas Drilling”). Public notification of this information may not make oil and gas operators happy; however, the media watchdogs have accepted their responsibility as journalists to inform the public about situations that could lead to bigger issues down the road.

TXsharon has piggybacked the Denton Record-Chronicle’s efforts to inform the public about radioactive wastes by mentioning on her blog that no one is regulating the radioactive activity at well sites. She adds:

[i]f we look at RRC’s Subchapter F, 4.605 Identification of Equipment Contaminated with NORM, we learn that, once again, the operator is in charge of regulating themselves. And, because proper handling of radioactive is expensive, there is little incentive for operators to discover contamination. (“RRC”)

Not only does TXsharon educate her readers about the findings of the Denton Record-Chronicle article, but she also goes a step further to inform her readers that an adequate regulatory authority does not exist. TXsharon challenges the RRC to put the public first by protecting its constituents from possible exposure. Although these watchdog actions have yet to inspire the legislature or the RRC to change, they are certainly giving those

living near gas wells important information. The possible contamination by radioactive waste is so important that the RRC now has a page on their site that addresses NORM (RRC).<sup>41</sup>

### Water Disposal

The well, designed to push production waste from hundreds of area gas wells back underground, could bring as many as 160 to 180 trucks traveling in and out every day—or about one truck going by every four minutes, 24 hours a day.

Peggy Heinkle Wolfe

Similar to the response over water use, concerns about water disposal within Barnett Shale operations have also inspired civic engagement and change. As mentioned earlier in Chapter III, Barnett Shale wells make significant amounts of waste water. This water is extracted from the ground in order to recover the natural gas. The water is then either transported via tank truck to a disposal site, or it is injected back into the ground at an onsite disposal well. For the water that is transported to the site, concerns over increased traffic and road damage have risen. However, for both types of disposal sites, citizen concern also revolves around the possibility of contamination due to leaking or spills. The fact that natural gas operators have to dispose of so much water is troubling not only for citizens, but for operators as well. Water hauling and disposal costs can range from \$600 to \$1000 per month for one well.<sup>42</sup> Due to the expense and hassle of water

<sup>41</sup> This information has been added to the RRC website within the timeframe of 2006-2007.

<sup>42</sup> This is the cost of water hauling per well/per month for the Barnett Shale operator, Wolsey Well Service, LP. This number could be greater on some wells.

extraction and disposal, efforts within the industry have been made to address this problem.

To begin with, chemicals have been introduced to suppress the amounts of water that wells produce<sup>43</sup> or to make water extraction easier.<sup>44</sup> In addition, attempts to remove the salt, oil, and chemicals from the water through reverse osmosis,<sup>45</sup> desalination,<sup>46</sup> and onsite water treatment facilities<sup>47</sup> are also in progress. Once substances are removed from the water, proponents, like Congressman Chet Edwards, have suggested using this water not only for oil and gas operations but for agricultural use as well. Edwards co-authored H.R. 902: More Water and More Energy Act of 2007 with Colorado Congressman Mark Udall which—if it had passed—would have given grant money to oil and gas operators for their water recycling efforts (“H.R.”; “Bill”; Francis “Barnett”). Although this attempt at change did not succeed, it was certainly a start for lawmakers. Consequently, the TWDB and the University of Texas at San Antonio have researched the idea of disposing wastes from recycling locations at exhausted oil field sites.<sup>48</sup> Although this plan would only move the problem to another location, efforts to curtail water disposal have been made. As residents became more conscious of—and knowledgeable about—disposal sites, their concerns grew for matters including: the increased amount of traffic on the

<sup>43</sup> In 1993, Gel-Tec was created which is a chemical to reduce water production in wells.

<sup>44</sup> Soap consists of surfactant in a solid stick form that is used to aid in the extraction of water from gas wells.

<sup>45</sup> The National Energy Technology Laboratory financed a study in conjunction with Texas A & M University to improve reverse osmosis operations.

<sup>46</sup> Burnett, David. “Desalinating Brine from Oil and Gas Operations in Texas.” Southwest Hydrology.

<sup>47</sup> As mentioned in Chapter V, three Aqua Pure onsite water treatment facilities are currently in use to recycle water used during the fracturing process so that it does not have to be disposed back into the ground.

<sup>48</sup> “Please Pass the Salt: Using Oil Fields for the Disposal of Concentrate from Desalination Plants.”



roads, incidents of illegal dumping, and because of the locations chosen for disposal sites. All of these concerns were reported by local media and have resulted in democratic debates to this day.

To begin with, citizen concern has been generated over the number of water hauling trucks on the roadways. Water transport has become quite a profitable business in the Barnett Shale. As the number of wells increases each day, so too does the number of tank trucks on the roads hauling the water that each well makes. Then, for each well that is drilled, the water made needs to be transported away. While this demand has contributed to additional jobs for the North Texas area, it has also increased the amount of traffic on the roads, and has led to concerns over road maintenance.

Watchdog blogger, Don Young has posted numerous pictures of the many Barnett related trucks that frequent the roadways along with pictures of the damage that they have caused to the roads (“Trucks”). In addition, the Weatherford Democrat has not only reported of the road damage, but cites how lawmakers are becoming involved in this issue as well. In an interview with County Commissioner John Roth, the lawmaker tells Galen Scott that the damage in Parker County is quickly becoming just as bad as the damage in the more developed Barnett county of Johnson. “I’m afraid that our roads are going to end up just like theirs. We’re headed that direction and its dangerous and I want to enter into this debate before it gets absolutely horrible” (“Truck Traffic”).

As the roads in Parker County (which had the most drilling activity in 2006)<sup>49</sup> reached points of deterioration, citizens in conjunction with the County commissioner, worked to

<sup>49</sup> Scott, 20 June 2007

find a resolution to the ongoing problem. As Roth commented, “tax revenue produced by gas wells is just not enough to offset the damage caused by trucks involved in Barnett Shale production” (Scott “Truck Traffic”). The Commissioner also added that the oil and gas industry was not the only culprit involved, yet he believed they were to blame for the majority of highway damage. In order to remedy this problem, an additional tax to the gas operator has been proposed.

In June 2007, State Representative Phil King (R-Weatherford) introduced House Bill 913 which would impose a tax on drilling rigs to offset road damages (Scott “Legislation”). However, this bill did not pass because many felt that the economic rewards from the boom should be enough to pay for the roads. Yet, Rep. King and his fellow constituents continue to brainstorm about ways to save their roads. One of their most recent ideas included taxing other entities such as royalty owners who also benefit from the drill. Incidentally, in September 2007 Parker County appointed Nick Coufal to monitor the county’s drilling activity and road traffic (“Trained”). Possibly with this appointment and the publication of Coufal’s future reports concerning the road damage, civic engagement concerning this issue will not die down.

Another area of concern involves illegal dumping. It is possible that because there is such a demand for water haulers these days, truck drivers are stretched thin when it comes to completing jobs. This demand or perhaps sheer laziness could have easily led to water being deposited in areas not designated for disposal. In the spring of 2006, one company was caught illegally dumping salt water that ultimately ended up in Lake Granbury (which according to the Brazos River Authority (BRA) has seen increased

levels of salt) (Scott “Brazos”). According to BRA public relations representative Judi Pierce, “[t]hey were basically dumping it up on the bank and letting it run into the lake from a pump truck” (qtd. in Scott “Brazos”). This incident is not the only case reported by the watchdog media.

Another report by the Weatherford Democrat detailed an illegal dump that resulted in the arrest of a man caught disposing saltwater in the Greenwood Ranch Estates, a new subdivision in Parker County (Scott “Local Waste”). Oddly enough, this subdivision is less than half a mile from the man’s home; which goes to show that not every home owner is concerned about the possible threats of salt water disposal. Needless to say, many Parker County residents, along with the RRC, have been civically involved in monitoring illegal dumping.

Internet bloggers have also been active in notifying the public about water disposal. In his blog, “What’s Wrong With This Picture?” Steve-O reports about how FWCanDo! activist Don Young witnessed Chesapeake Energy drillers disposing of their used water into the Trinity River (“What’s Wrong”). Not only did Young report this incident to Fort Worth’s city inspector, but Steve-O posted pictures to prove that this occurred on his blog for the public to see (“What’s Wrong”). Although the inspector replied that this was out of his jurisdiction and was the responsibility of the Tarrant Regional Water District (TRWD), at least the inspector’s response gave Steve-O and Young someone else to contact. Upon receiving their messages, TRWD manager Chad Lorange replied that the drillers were disposing of water that they did not use which had not been tainted with oil, salt, and chemicals (Steve-O “Update”). Because of the actions of these Internet

bloggers, city inspectors, the TRWD, and drillers are *at least* more aware that the public is watching their every move.

Another example of civic engagement and change in response to watchdog reporting involves the location of disposal wells. Homeowners have been concerned about locations because they believe the contaminated water that is disposed of may pollute their ground water supply. Although oil and gas operators, along with the RRC insist that protective casing would prevent any possible leaks, a March 2007 report by the Wise County Messenger generated additional concern. The report stated that a disposal well located in Wise County and operated by Hydro-FX<sup>50</sup> was shut down because the bradenhead pressure<sup>51</sup> had increased significantly. The reason why this pressure increase was so problematic was because the operator was attempting to put more fluid into the ground than the zone could handle. This caused a pressure increase not only in this particular well, but in other injection wells within the surrounding area. Pressure increases of this nature could then cause deterioration of the protective casing in a well. This protective casing, according to the Wise County Messenger is “used to protect groundwater” (Knox “State Shuts”). If this protective casing has the potential of being damaged then it is possible that other casing could as well.

One area of the Barnett Shale that witnessed protest was in the Denton County area where three disposal wells were pending approval. In order to have a disposal well, an operator must seek approval from the RRC. In this approval process, public notice of the

<sup>50</sup> Hydro-Fx is a subsidiary of Barnett Shale operators, Star of Texas Energy Services and Exterra Oil and Gas.

<sup>51</sup> Bradenhead pressure is sometimes called the back-side pressure and refers to the pressure around the tubing and inside the casing that is in the well.



potential disposal site must be made. Furthermore, there is a public hearing—usually at the RRC headquarters in Austin—in case anyone opposing the site has the freedom to make the trip and have their voices heard. Residents from the North Texas towns of Era, Ponder, and Stoney all showed up to protest the prospective disposal sites (Heinkle-Wolfe “Families”). In addition, several lawsuits were also filed by citizens in objection. Ultimately, one out of the three towns protesting, Era won its case. As the Denton Record-Chronicle reported, “[r]esidents in the tiny Cooke County town of Era, just across the Denton County line, call it their Perry Mason moment” (Heinkle-Wolfe “Era”). The civic engagement and change that this “Perry Mason moment” inspired is an example of how a difference can be made, even if you are going up against the big dogs. By reporting incidents such as this, the media can serve to maintain confidence in the public that voices are still heard and that democracy does still exist.

Activist journalists have continued to keep injection wells in the minds of North Texas residents. They educate the unknowing about what injection wells are and what potential hazards they pose (Steve-O “Barnett”; Steve-O “Injection”). They report about inspection procedures, pending injection wells, and problems at existing disposal sites (TXsharon “How Are”; Heinkel-Wolfe “Permits”; Scott “Drilling Underway”; TXsharon “Injection”) These watchdogs also keep citizens abreast of potential threats to existing water wells that the injection sites may cause (TXsharon “N. TX Gets”). In addition, they also report the discussions that lawmakers have concerning these sites (TXsharon “Will”). The media continue to inform citizens and uphold the role of the watchdog to make sure that potential crisis does not occur.

## CHAPTER VI

### CONCLUSION

In this case study, I have tested Bennett and Serrin's claim that the watchdog media is lacking by addressing the following questions.

- I. Research Question: Did the media in North Texas inform the public of the potential political and economic impact of the Barnett Shale natural gas boom and, if so, was this information delivered in a timely manner?
- II. Research Question: Did the media in North Texas stimulate calls for action regarding the potential political and economic impact of the Barnett Shale natural gas boom and, if so, were these calls for action timely?

The "Barnett Shale" case study analysis answers both research questions in the affirmative. I support this conclusion by listing the major concerns involved with natural gas drilling and by detailing how media reports focusing on these concerns have served to educate, stimulate calls for action, and enact change—all within a timely manner. Due to time constraints and the scope of this research, it is probable that not all examples of civic engagement and change have been recorded. Nor is it likely that the watchdog media was the contributor in all cases of civic engagement and change. However, the fact the general public had limited sources other than local media for acquiring information should be considered when measuring the media's influence on these events.

For instance, the media reported that Chesapeake Energy had plans to remove a section of mature trees within the Trinity Hike and Bike Trail known as Trinity Trees. Upon notification of this report, organizers immediately answered this call to action, formed a protest organization, solicited public and private support, and persuaded Chesapeake to reconsider their original plan. In addition, once citizens learned—through media reports—that water use within oil and gas operations was not regulated; another call for action was promptly answered. Groundwater conservation districts were formed and amendments were made to the existing Water Code to include oil and gas regulation. Energy elites have also responded to media reports by re-examining their own water use and focusing efforts on water re-use methods. In addition to supporting my original argument—that the watchdog media responded within a timely manner—I recognized other factors as well.

An analysis was made of the content and tenor of the media pieces from television, newspapers, and blogs offered to the public on the general topic of the Barnett Shale. The material was gathered from April 2006 to December 2007. The case study that evolved found that the Star-Telegram appeared to be the most holistic in their approach to activist journalism. While television reports focused primarily on safety issues and blogger debate often maintained a cynical approach, the Star-Telegram's reports were all-encompassing and even handed. Its reports covered a multitude of topics on both sides of the issues from environment, to positive steps energy elites had made in protecting the area. It gave tips that landowners must remember when leasing their minerals and presented the economic benefits that this boom has inspired. In addition, the Star-

Telegram surpassed all other media forms in this study by not only maintaining its responsibility to the public, but by also working with the oil and gas industry to better inform citizens. Their sponsorship of the Barnett Shale Expo as well as the many educational supplements included in the paper were excellent examples of how two—sometimes opposing—sides can work together to make a difference.

Furthermore, with the creation of the Barnett Shale blog, the Star-Telegram drew average citizens, lawmakers, and energy elites into democratic debate over issues that affected all. The blog serves as an example of civic engagement in a way that it calls for action and compliments Bennett and Serrin's claim at the beginning of this paper that "without journalists acting as watchdogs, American democracy—at least in anything close to the form we know it today—would not exist" (327). Because it is virtually impossible to be actively engaged in democratic debate if the subject is unknown, the Star-Telegram successfully educated its readers, got people thinking, asking questions, desiring to learn more, thus stimulating the involvement to enact change.

Another factor that was recognized upon completion of this study was the impact of Internet blogs<sup>52</sup>. Bloggers have freedoms that other media entities do not have. These freedoms do not mean that they are less of a form of media than other entities, for there is both good and bad to be said about this statement. On one hand, bloggers can speak to their readers like they would speak to their friends. In this explanation process, bloggers can educate in layperson's terms whereas other media sources are required to use a more

<sup>52</sup> As mentioned in Chapter II, there were only three bloggers used for this case study: TXsharon, Steve-O, and Don Young.



professional—almost academic—approach. Bloggers can also place a call for action and blatantly tell you who you need to contact if you would like to protest what you read. In addition, the freedoms of bloggers allow them to report without having to follow the business formulas or go up against gatekeepers as is so often the case with traditional media. On the other hand, these freedoms can also be problematic. Bloggers are able to write about whatever they wish, true or not. They do not have a fact check department or a reputation to uphold like others in the journalism field.<sup>53</sup> For readers who are not educated about a subject, information can often be misleading and one-sided. As with any form of media—not only blogs—it is important to question all knowledge claims and statistics.

The ability to question knowledge claims and statistics has to start from somewhere. Watchdog journalists in this study have given some of the public a general education about oil and gas procedures so that citizens can begin to determine truths for themselves and react when action is necessary. However, I wonder if the entire public has been reached through these types of media. A good inquiry for further study would involve examining the demographics that receive the information from the watchdog media. Are some groups left out because they do not have access to the Internet? Are others limited in civic participation because blogging is a relatively new concept? Is Barnett Shale information only available in English, therefore limiting the amount of knowledge that a

<sup>53</sup>This comment does not refer to the bloggers with the Star-Telegram blog site because they are employees of the newspaper.

non English speaking landowner possesses? Who still reads the newspaper? Answers to these questions could provide more comprehensive results to this study.

Another area of interest that I was unable to determine within this study concerns the addition of pages to the RRC website. Over the course of this research, pages detailing the Barnett Shale, water use in the Barnett Shale, and NORM were all added. It would be nice to think—for the purpose of this study—that the RRC added these pages in response to the concerns of citizens. It would also make sense that the RRC added these pages in order to limit the number of phone calls to their offices. However, the real reason behind the RRC's additions is unknown and could just as easily be attributed to the hiring of a web designer. Nonetheless, their efforts do provide citizens with more knowledge that can easily spawn calls for action and change.

Knowledge feeds the fire of the democratic process and the media is responsible for providing the public with information. As Bennett and Serrin so eloquently stated, “without journalists acting as watchdogs, American democracy—at least in anything close to the form we know it today—would not exist” (327). The need for watchdogs is vital. Citizens of North Texas could have easily been swept under the rug by the energy elites if it had not been for the continuing education provided by the media. This information may not have provided citizens with the upper hand, but it did make the playing field more equal.

The media watchdogs have also given voice to concerns that could have easily been overlooked and—as a result—possibly prevented crisis in the end. As a result, I conclude that watchdog journalism is alive and well in North Texas. “The Barnett Shale Case” has

adequately challenged Bennett and Serrin's claims that activist journalists today fail to act in a timely manner. Because of the actions of local newspaper, television, and Internet bloggers, media has served as a catalyst for civic engagement and change in North Texas.

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## APPENDIX

### Timeline

## APPENDIX

### Timeline

#### April 2006

- Dallas Morning News "Gas Wells in Cities Weighed: Despite fatal blast, safety analysis say drilling safe; but residents still have questions."
- Mobile Evaporator treats water in Texas gas field.
- Star-Telegram "Rules would quiet wells."
- Star-Telegram "Divisions persist over plan for gas drilling near homes."
- Weatherford Democrat "County pulled in fight between landowner, energy companies."

#### May 2006

- The Texas Observer "What Lies Beneath: The threat from oilfield waste injection wells."
- Wise County Messenger "Devon reports record earning of \$700 million."

#### July 2006

- Denton Record-Chronicle "Drilling laws rely on enforcement."
- Denton Record-Chronicle "Tips for landowners."
- Denton Record-Chronicle "Changes set Argyle up for gas boomlet."
- Washington Post "In Fort Worth Neighborhoods, Residents Know the Drill."
- Weatherford Democrat "Local waste hauler dumps salty load on Greenwood cut-off Road."
- Weatherford Democrat "Brazos River Authority watching salt levels in Lake Granbury."
- Wise County Messenger "Devon completes Chief Oil and Gas purchase."
- Nick Coufal hired by Parker County Commissioner to monitor Barnett Shale activity for county.

#### August 2006

- Weatherford Democrat "Barnett lease bonuses continue to climb."
- Star Gas Expo where RRC Commissioner Williams speech informs audience that RRC cannot regulate water—only GCD—but oil and gas are exempt
- Wise County Messenger "King swings away at issues."

September 2006

- Dallas Morning News "Grand Prairie increases city gas well buffer."
- Denton Record-Chronicle "Reichmann moves towards compliance."
- Denton Record-Chronicle "New drilling rigs safer, quieter, cleaner."
- Weatherford Democrat "Guest columnist tackles tough Barnett issue."
- Weatherford Democrat "Energy companies explore water options in Barnett."
- Barnett Shale Water Conservation and Management Committee Formed.

October 2006

- Denton Record-Chronicle "Pipeline locations hit or miss in area."

November 2006

- Denton Record-Chronicle "Energy officials dish out answers for area residents."
- Weinstien and Clower study "The Economic and Fiscal Impacts of Devon Energy Corporation in the Barnett Shale of North Texas."

December 2006

- Denton Record-Chronicle "Drilling could sap water supply."
- Denton Record-Chronicle "Chance to clear the air- response to compressor spewing gas."
- League of Women Voters of Tarrant County Newsletter "Water and Gas Drilling."
- Wise County Messenger "Devon's impact: Economic study shows energy company's economic contribution to area is \$1.36 billion."
- Weatherford Democrat "Economists tout Devon's huge impact on North Texas economy."

January 2007

- CBS Report "Man Dies Hood County Explosion."
- CBS Report "Natural Gas Drilling Planned in Mall Parking Lot."
- Denton Record-Chronicle "No yields in DISH, Atmos meeting."
- Weatherford Democrat "Exemption protects gas industry from conservation districts."
- RRC Website "Devon Energy is approved for pilot project to recycle water."
- League of Women Voters of Tarrant County "Natural Gas Drilling Facts and Issues Texas Water Board Study."

February 2007

- Barnett Shale Water Conservation and Management Committee Formed.
- “Bill to Help Recycle Water in Barnett Shale Operations” Newsline
- TXsharon "Oil and gas exemption should be eliminated."
- TXsharon "ACTION: Save Our Water!"
- Weatherford Democrat "Hudson Oaks asks State Legislature to remove GCD oil, gas exemption."
- Weatherford Democrat "Legislation could bring rig taxes to Parker County."

March 2007

- Barnett Shale Legislative Day at the 80<sup>th</sup> Texas Legislative Session.
- Barnett Shale Water Recycling Bill included in New House Bill.
- CBS Report "Man Dies in Hood County Explosion."
- CBS Report "Pipeline Fire Contained But Still Burning."
- Dallas Morning News "Gas Value v. Property Value."
- Dallas Morning News "Fort Worth Neighborhoods Getting to Know the Drill."
- First book on the Barnett Shale Published: The Barnett Shale Play: phoenix of the Fort Worth Basin A History by Dan Steward, Ed.
- Star-Telegram "Council approves record gas lease."
- TXsharon "Injection well failure in Wise County! Updated with links."
- Wise County Messenger "Gas firms form water conservation group."
- Wise County Messenger "State shuts well down."

April 2007

- Denton Record-Chronicle "Permits issued despite concerns: Denton among counties where nearly 30 new injection wells approved."
- CBS Report "Static May Have Sparked Natural Gas Fire."
- Fort Worth Basin/Barnett Shale Natural Gas Play: An Assessment of Present and Projected Water Use Study conducted for the Gas Technology Institute.
- H.R. 902: More Water and More Energy Act.
- Star-Telegram-Tarrant shoots to top of Barnett production
- TXsharon "N.TX gets nearly 30 new injection wells...Is your county on the list?"
- Weatherford Democrat "Weatherford looks at wastewater reuse in Barnett Shale."

May 2007

- Barnett Shale Expo.
- Devon Energy releases publication "Leading Water Recycling Methods in the Barnett Shale."
- Fort Worth Chamber of Commerce releases publication on Barnett Shale activity.
- National Energy Tech. Laboratory- Advanced membrane Filtration Technology for Cost-effective recovery of Fresh water from oil and gas produced brine.
- Star-Telegram "Advertising Section- Barnett Shale Expo."
- SB 714 passes.
- Weatherford Democrat-Legislature passes King's Common Courtesy Act."
- Weatherford Democrat "Court blocks compressor station at County Farm."
- Weatherford Democrat "Groundwater bill passes on last day of session."
- Wise County Messenger "Gas spews cash for us."



June 2007

- Dallas Morning News "Gas Wells Light Up the Sky."
- CNNMoney.com names Fort Worth, Denton and McKinney in top ten fastest growing cities of U.S.
- CBS Report "Barnett Bonanza Can Bring Bad Blood."
- FOX Report "Drilling Boom Brings Water Worries."
- NBC Nightly News Report "Gas Drilling in the Middle of the City."
- Star-Telegram "Two hurt in Gas Flare Up."
- Star-Telegram "Arlington trustees expect to approve lease for gas well."
- Star-Telegram "Residents oppose UTA gas drilling."
- USA Today "Gas Wells Cause Friction Between Neighbors in Texas."
- Weatherford Democrat "Truck Traffic blamed for damaged roads."

July 2007

- Denton Record-Chronicle "Era fending off injection well."
- Denton Record-Chronicle "Families protest injection well."
- Trinity Trees.org formed in opposition to urban drilling - July 2007
- TXsharon "Will Wise County get Fort Worth's drilling wastewater?"
- Weatherford Democrat "Operators, excavators face revamped pipeline rules."
- Weatherford Democrat "Drilling underway for new saltwater injection well."
- Wise County Messenger "Gas plant will be part of partnership."

August 2007

- Dallas Morning News "Gas well drillers set sights on western Dallas County."
- Dallas Morning News "Grand Prairie City Council further restricts wells."
- "Residents Oppose UTA Gas Drilling"
- TCU announces executive education program for petroleum land practices.
- TXsharon "Barnett Shale Drilling: An Insatiable Thirst."
- TXsharon "Barnett Shale Drilling: It's not sexy but Noreiga for TX Senate is!"
- TXsharon "Barnett Shale Drilling: Depleting and Polluting our Water in Wise County."
- TXsharon "Barnett Shale" Devon wants to protect our water? Like Hell!"
- TXsharon "Upper Trinity Groundwater Conservation District."
- Weatherford Democrat "Local hotels thriving on area growth."

September 2007

- Dallas Morning News "Mortgage company agreements hold up mineral drilling royalties for some."
- Dallas Morning News Dallas Considers Gas Wells on Public Land- Sept 2007
- NBC Report "Creeks Run Red After Spill."
- Devon Energy holds "Oilfield Crime Awareness and Trends" seminar at Decatur Civic Center.
- Star-Telegram Barnett Shale Blog begins.
- Star-Telegram "Passing on the wealth: Economic benefits to the Metroplex."

- Star-Telegram "Property owners spend as much money cleaning up as preparing to drill."
- Star-Telegram "Safety equals good business."
- Star-Telegram "Process and Jobs."
- Star-Telegram "2 companies eyeing Mistletoe Heights."
- Star-Telegram "City residents voice drilling concerns."
- Star-Telegram "Fort Worth has sharp eye on water disposal."
- Star-Telegram "Woman warns city of suit over drilling."
- Star-Telegram "Railroad Commission taken to task over well inspections."
- Star-Telegram "Audit takes commission to task over well inspections."
- Star-Telegram "Mayor Mike Moncrief Letter to Commissioner Jones on RRC Audit."
- Star-Telegram "Mayor says oil and gas income is not a conflict."
- Star-Telegram "Petroleum Engineers offer insight."
- Steve-O "A funny thing happened at the Trinity Trees Public Forum."
- Weatherford Democrat "A Trained Eye (road damage)."
- Wise County Messenger "Crime in the Barnett Shale."

October 2007

- Barnett Shale Land Title Training Class (one day only).
- CBS News report "Fire Erupts at Johnson County Storage Facility."
- CBS Report "Lawsuit Filed Over North Texas Gas Lease."
- Denton Record-Chronicle "Editorial-Gifts from the gas man."
- Fort Worth League of Neighborhoods conducts a Gas Drilling Education Event for Presidents of neighborhood associations.
- Greater Fort Worth Association of Realtors conducts a Barnett Shale Informative Seminar.
- Don Young "Lightning, Gas Wells, Strip Clubs, Fun Facts and a PS!"
- Don Young "Spewing Gas Well. . . Again!"
- Don Young "Railroad Commission taken to task over well inspections."
- FwCanDo! "Spewing Gas Well. . . Again."
- RRC holds Barnett Shale Seminar in Arlington.
- TCU offers Petroleum Land Practices Certificate Program.
- Texas Insider.org "Commissioner Carrillo to Begin Dialogue with Barnett Regional Officials."
- TXsharon "Breaking: Breasts found more dangerous than gas wells."
- TXsharon "Barnett Shale: Fort Worth Residents sell out cheap!"
- Star-Telegram "Church considering gas well on property."
- Star-Telegram "Explaining Barnett Shale Equipment."
- Star-Telegram "A small neighborhood proves it pays to stick together."
- Star-Telegram "Learn from the ones who went first (mineral rights)."
- Star-Telegram "Central Arlington residents continue to see lease offers."
- Star-Telegram "Neighborhood Group, Driller Spar over site."
- Star-Telegram "Oakhurst residents in Fort Worth get first royalty checks."

- Star-Telegram "City gives go-ahead for well at "Trinity Trees" site."
- Star-Telegram "Council increases gas well buffer from 300 feet to 600 feet."
- Steve-O "Bernie Scheffler Proposes New Gas Drilling Ordinance for Fort Worth."
- Steve-O "Trinity Trees Public Forum."
- Steve-O "Mistletoe Heights-XTO, reach lease agreement."
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